

## VHM-Universal-Spiralbohrer 12xd mit 4-Führungsfasen

E.3667.1



Solid carbide twist drills 12xd  
 Wiertła skrotne z węglika spiekanego 12xd  
 Punte in MD 12xd

Brocas de metal duro integral, 12xd, ranuras helicoidales  
 12xD Karbür matkap Ucu, 4 Zırlı  
 Сверла спиральные сверхдлинные (12xD), VHM (BlueCut) универсального применения



Schnittwerte Seite 3.81  
 Cutting data page 3.81

| Material | 1.1 | 1.2 | 1.3 | 1.4 | 1.5 | 1.6 | 1.7 | 1.8 | 1.9 | 2.1 | 2.2 | 3.1 | 3.2 |
|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Material | 3.3 | 4.1 | 4.2 | 4.3 | 4.4 | 4.5 | 4.6 | 5.1 | 5.2 | 6.1 | 6.2 | 6.3 |     |

| d1 h7 | Gewindebohrer taps | Gewindeformer forming taps | I3    | I2    | I1     | d2 h6 | Artikelnummer Article-No. | Stück / piece | €     |
|-------|--------------------|----------------------------|-------|-------|--------|-------|---------------------------|---------------|-------|
| 1.00  |                    | M 1,1                      | 12.00 | 15.00 | 55.00  | 3.00  | E.3667.1.0100             |               | 38.00 |
| 1.10  | M 1,4              | M 1,2                      | 18.50 | 23.00 | 55.00  | 3.00  | E.3667.1.0110             |               | 38.00 |
| 1.20  |                    |                            | 18.50 | 23.00 | 55.00  | 3.00  | E.3667.1.0120             |               | 38.00 |
| 1.30  |                    |                            | 18.50 | 23.00 | 55.00  | 3.00  | E.3667.1.0130             |               | 38.00 |
| 1.40  |                    |                            | 18.50 | 23.00 | 55.00  | 3.00  | E.3667.1.0140             |               | 38.00 |
| 1.50  |                    |                            | 24.00 | 30.00 | 65.00  | 3.00  | E.3667.1.0150             |               | 38.00 |
| 1.60  | M 2                |                            | 24.00 | 30.00 | 65.00  | 3.00  | E.3667.1.0160             |               | 38.00 |
| 1.70  |                    |                            | 24.00 | 30.00 | 65.00  | 3.00  | E.3667.1.0170             |               | 38.00 |
| 1.80  |                    |                            | 24.00 | 30.00 | 65.00  | 3.00  | E.3667.1.0180             |               | 38.00 |
| 1.90  | M 2,3              |                            | 24.00 | 30.00 | 65.00  | 3.00  | E.3667.1.0190             |               | 38.00 |
| 2.00  |                    |                            | 30.50 | 38.00 | 74.00  | 3.00  | E.3667.1.0200             |               | 38.00 |
| 2.10  |                    |                            | 30.50 | 38.00 | 74.00  | 3.00  | E.3667.1.0210             |               | 38.00 |
| 2.20  |                    |                            | 30.50 | 38.00 | 74.00  | 3.00  | E.3667.1.0220             |               | 38.00 |
| 2.30  |                    |                            | 30.50 | 38.00 | 74.00  | 3.00  | E.3667.1.0230             |               | 38.00 |
| 2.40  |                    |                            | 30.50 | 38.00 | 74.00  | 3.00  | E.3667.1.0240             |               | 38.00 |
| 2.50  | M 3                |                            | 35.00 | 44.00 | 81.00  | 3.00  | E.3667.1.0250             |               | 38.00 |
| 2.60  |                    |                            | 35.00 | 44.00 | 81.00  | 3.00  | E.3667.1.0260             |               | 38.00 |
| 2.70  |                    |                            | 35.00 | 44.00 | 81.00  | 3.00  | E.3667.1.0270             |               | 38.00 |
| 2.80  |                    | M 3                        | 35.00 | 44.00 | 81.00  | 3.00  | E.3667.1.0280             |               | 38.00 |
| 2.90  | M 3,5              | M 3,5 x 0,25               | 35.00 | 44.00 | 81.00  | 3.00  | E.3667.1.0290             |               | 38.00 |
| 3.00  |                    |                            | 48.00 | 54.00 | 92.00  | 6.00  | E.3667.1.0300             |               | 67.30 |
| 3.20  |                    |                            | 48.00 | 54.00 | 92.00  | 6.00  | E.3667.1.0320             |               | 67.30 |
| 3.30  | M 4                | M 3,5 x 0,5                | 48.00 | 54.00 | 92.00  | 6.00  | E.3667.1.0330             |               | 67.30 |
| 3.50  | M 4 x 0,5          |                            | 48.00 | 54.00 | 92.00  | 6.00  | E.3667.1.0350             |               | 67.30 |
| 3.70  | M 4,5              | M 4                        | 48.00 | 54.00 | 92.00  | 6.00  | E.3667.1.0370             |               | 75.30 |
| 3.80  |                    | M 4 x 0,5                  | 58.00 | 64.00 | 102.00 | 6.00  | E.3667.1.0380             |               | 68.50 |
| 3.90  |                    |                            | 58.00 | 64.00 | 102.00 | 6.00  | E.3667.1.0390             |               | 75.30 |
| 4.00  | M 4,5 x 0,5        |                            | 58.00 | 64.00 | 102.00 | 6.00  | E.3667.1.0400             |               | 75.30 |
| 4.20  | M 5                | M 4,5                      | 58.00 | 64.00 | 102.00 | 6.00  | E.3667.1.0420             |               | 68.50 |
| 4.30  |                    | M 4,5 x 0,5                | 58.00 | 64.00 | 102.00 | 6.00  | E.3667.1.0430             |               | 75.30 |
| 4.50  | M 5 x 0,5          |                            | 58.00 | 64.00 | 102.00 | 6.00  | E.3667.1.0450             |               | 68.50 |
| 4.80  |                    | M 5 x 0,5                  | 70.00 | 78.00 | 118.00 | 6.00  | E.3667.1.0480             |               | 70.40 |
| 5.00  | M 6 / M 5,5 x 0,5  |                            | 70.00 | 78.00 | 118.00 | 6.00  | E.3667.1.0500             |               | 70.40 |
| 5.20  | M 6 x 0,75         |                            | 70.00 | 78.00 | 118.00 | 6.00  | E.3667.1.0520             |               | 78.50 |
| 5.30  |                    | M 5,5 x 0,5                | 70.00 | 78.00 | 118.00 | 6.00  | E.3667.1.0530             |               | 78.50 |

Pilotbohrung 3-5xd empfehlenswert  
 Pilot bore 3-5xd recommended

Fortsetzung auf Seite / Continuation on page 66

Bohrer VHM

12xd

| VHM-Universal-Spiralbohrer 12xd mit 4-Führungsfasen |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       |                               |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |       |               |                              |                    |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------|------------------------------|--------------------|
| E.3667:1                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       |                               |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |       |               |                              |                    |
| Fortsetzung<br>Continuation                         | <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |                       |                               |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |       |               |                              |                    |
|                                                     | <div><div> Solid carbide twist drills 12xd</div><div> Wiertła skrętne z węglika spiekanego 12xd</div><div> Punte in MD 12xd</div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                       |                               |        | <div><div> Brocas de metal duro integral, 12xd, ranuras helicoidales</div><div> 12xD Karbür matkap Ucu, 4 Zirhli</div><div> Сверла спиральные сверхдлинные (12xD), VHM (BlueCut) универсального применения</div></div> |       |               |                              |                    |
|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                       |                               |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |       |               |                              |                    |
|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       |                               |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |       |               |                              |                    |
|                                                     | d1 h7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Gewindebohrer<br>taps | Gewindeformer<br>forming taps | I3     | I2                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | I1    | d2 h6         | Artikelnummer<br>Article-No. | €<br>Stück / piece |
| 5.50                                                | M 6 x 0,5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       | 70.00                         | 78.00  | 118.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.00  | E.3667:1.0550 | 70.40                        |                    |
| 5.80                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | M 6 x 0,5             | 70.00                         | 78.00  | 118.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.00  | E.3667:1.0580 | 70.40                        |                    |
| 5.90                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       | 70.00                         | 78.00  | 118.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.00  | E.3667:1.0590 | 78.50                        |                    |
| 6.00                                                | M 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                       | 70.00                         | 78.00  | 118.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 6.00  | E.3667:1.0600 | 70.40                        |                    |
| 6.10                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       | 94.00                         | 108.00 | 146.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8.00  | E.3667:1.0610 | 125.40                       |                    |
| 6.20                                                | M 7 x 0,75                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                       | 94.00                         | 108.00 | 146.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8.00  | E.3667:1.0620 | 114.00                       |                    |
| 6.50                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       | 94.00                         | 108.00 | 146.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8.00  | E.3667:1.0650 | 114.00                       |                    |
| 6.60                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | M 7                   | 94.00                         | 108.00 | 146.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8.00  | E.3667:1.0660 | 114.00                       |                    |
| 6.80                                                | M 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | M 7 x 0,5             | 94.00                         | 108.00 | 146.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8.00  | E.3667:1.0680 | 114.00                       |                    |
| 7.00                                                | M 8 x 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                       | 94.00                         | 108.00 | 146.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8.00  | E.3667:1.0700 | 114.00                       |                    |
| 7.50                                                | M 8 x 0,5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                       | 94.00                         | 108.00 | 146.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8.00  | E.3667:1.0750 | 117.20                       |                    |
| 7.80                                                | M 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | M 8 x 0,5             | 94.00                         | 108.00 | 146.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8.00  | E.3667:1.0780 | 117.20                       |                    |
| 8.00                                                | M 9 x 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                       | 94.00                         | 108.00 | 146.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8.00  | E.3667:1.0800 | 118.80                       |                    |
| 8.10                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       | 110.00                        | 120.00 | 162.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10.00 | E.3667:1.0810 | 118.80                       |                    |
| 8.20                                                | M 9 x 0,75                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                       | 110.00                        | 120.00 | 162.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10.00 | E.3667:1.0820 | 152.90                       |                    |
| 8.50                                                | M 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                       | 110.00                        | 120.00 | 162.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10.00 | E.3667:1.0850 | 152.90                       |                    |
| 8.80                                                | M 10 x 1,25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | M 9 x 0,5             | 110.00                        | 120.00 | 162.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10.00 | E.3667:1.0880 | 152.90                       |                    |
| 9.00                                                | M 10 x 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       | 110.00                        | 120.00 | 162.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10.00 | E.3667:1.0900 | 152.90                       |                    |
| 9.50                                                | M 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                       | 110.00                        | 120.00 | 162.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10.00 | E.3667:1.0950 | 158.60                       |                    |
| 9.80                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | M 10 x 0,5            | 110.00                        | 120.00 | 162.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10.00 | E.3667:1.0980 | 158.60                       |                    |
| 10.00                                               | M 11 x 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       | 110.00                        | 120.00 | 162.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 10.00 | E.3667:1.1000 | 158.60                       |                    |
| 10.20                                               | M 12 / M 11 x 0,75                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                       | 142.00                        | 156.00 | 204.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 12.00 | E.3667:1.1020 | 209.00                       |                    |
| 10.50                                               | M 12 x 1,5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                       | 142.00                        | 156.00 | 204.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 12.00 | E.3667:1.1050 | 209.00                       |                    |
| 10.80                                               | M 12 x 1,25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                       | 142.00                        | 156.00 | 204.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 12.00 | E.3667:1.1080 | 209.00                       |                    |
| 11.00                                               | M 12 x 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       | 142.00                        | 156.00 | 204.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 12.00 | E.3667:1.1100 | 210.60                       |                    |
| 11.20                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       | 142.00                        | 156.00 | 204.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 12.00 | E.3667:1.1120 | 210.60                       |                    |
| 11.50                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       | 142.00                        | 156.00 | 204.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 12.00 | E.3667:1.1150 | 210.60                       |                    |
| 11.80                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       | 142.00                        | 156.00 | 204.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 12.00 | E.3667:1.1180 | 210.60                       |                    |
| 12.00                                               | M 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                       | 142.00                        | 156.00 | 204.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 12.00 | E.3667:1.1200 | 212.20                       |                    |
| 12.50                                               | M 14 x 1,5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                       | 166.00                        | 182.00 | 230.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 14.00 | E.3667:1.1250 | 282.70                       |                    |
| 12.80                                               | M 14 x 1,25                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                       | 166.00                        | 182.00 | 230.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 14.00 | E.3667:1.1280 | 282.70                       |                    |
| 13.00                                               | M 14 x 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                       | 166.00                        | 182.00 | 230.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 14.00 | E.3667:1.1300 | 282.70                       |                    |
| 13.50                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                       | 166.00                        | 182.00 | 230.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 14.00 | E.3667:1.1350 | 282.70                       |                    |

Pilotbohrung 3-5xd empfehlenswert  
Pilot bore 3-5xd recommended

Fortsetzung auf Seite / Continuation on page 67

| VHM-Universal-Spiralbohrer 12xd mit 4-Führungsfasen                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                       |                               |        |        |        |       | E.3667.1                    |                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------|--------|--------|--------|-------|-----------------------------|------------------------------|
| <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>                              |                       |                               |        |        |        |       | Fortsetzung<br>Continuation |                              |
| <div><div></div><div><div><div> Solid carbide twist drills 12xd</div><div> Wiertła skrotne z węglika spiekanego 12xd</div><div> Punte in MD 12xd</div></div><div><div><div> Brocas de metal duro integral, 12xd, ranuras helicoidales</div><div> 12xD Karbür matkap Ucu, 4 Zirhli</div><div> Сверла спиральные сверхдлинные (12xD), VHM (BlueCut) универсального применения</div></div></div></div></div> |                       |                               |        |        |        |       |                             |                              |
| d1 h7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Gewindebohrer<br>taps | Gewindeformer<br>forming taps | I3     | I2     | I1     | d2 h6 |                             | Artikelnummer<br>Article-No. |
| 14.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | M 16 / M 15 x 1       |                               | 166.00 | 182.00 | 230.00 | 14.00 | E.3667.1.1400               | 287.50                       |
| 14.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | M 16 x 1,5            |                               | 192.00 | 208.00 | 260.00 | 16.00 | E.3667.1.1450               | 372.60                       |
| 15.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | M 16 x 1              |                               | 192.00 | 208.00 | 260.00 | 16.00 | E.3667.1.1500               | 372.60                       |
| 15.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | M 18                  |                               | 192.00 | 208.00 | 260.00 | 16.00 | E.3667.1.1550               | 372.60                       |
| 16.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | M 18 x 2              |                               | 192.00 | 208.00 | 260.00 | 16.00 | E.3667.1.1600               | 372.60                       |
| 18.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                       |                               | 216.00 | 234.00 | 285.00 | 18.00 | E.3667.1.1800               | 372.60                       |

| VHM-Tieflochspiralbohrer ca. 15xd                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                            |        |        |      |                           |               |     |     |     | E.3674.1 |     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |     |     |     |     |     |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------|--------|--------|------|---------------------------|---------------|-----|-----|-----|----------|-----|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| <div><div></div><div></div><div><div><div> Solid carbide deep hole drills appr. 15xd</div><div> Wiertła z węglika spiekanego do głębokich otworów do ok. 15xd</div><div> Punte in MD per foratura profonda circa 15xd</div></div><div><div> Brocas de metal duro integral con hélice para agujeros profundos hasta 15xd</div><div> 15xD Karbür Matkap Ucu, Uzun Tip</div><div> Сверла спиральные сверхдлинные (15xD) с каналами СОЖ, VHM, универсального применения</div></div></div></div> <div></div> |                    |                            |        |        |      |                           |               |     |     |     |          |     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |     |     |     |     |     |  |
| <div><div>Schnittwerte Seite 3.81<br/>Cutting data page 3.81</div><table><tr><td>Material</td><td>1.1</td><td>1.2</td><td>1.3</td><td>1.4</td><td>1.5</td><td>1.6</td><td>1.7</td><td>1.8</td><td>1.9</td><td>2.1</td><td>2.2</td><td>3.1</td><td>3.2</td></tr><tr><td>Material</td><td>3.3</td><td>4.1</td><td>4.2</td><td>4.3</td><td>4.4</td><td>4.5</td><td>4.6</td><td>5.1</td><td>5.2</td><td>6.1</td><td>6.2</td><td>6.3</td><td></td></tr></table></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                            |        |        |      |                           |               |     |     |     |          |     | Material | 1.1 | 1.2 | 1.3 | 1.4 | 1.5 | 1.6 | 1.7 | 1.8 | 1.9 | 2.1 | 2.2 | 3.1 | 3.2 | Material | 3.3 | 4.1 | 4.2 | 4.3 | 4.4 | 4.5 | 4.6 | 5.1 | 5.2 | 6.1 | 6.2 | 6.3 |  |
| Material                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1.1                | 1.2                        | 1.3    | 1.4    | 1.5  | 1.6                       | 1.7           | 1.8 | 1.9 | 2.1 | 2.2      | 3.1 | 3.2      |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |     |     |     |     |     |  |
| Material                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 3.3                | 4.1                        | 4.2    | 4.3    | 4.4  | 4.5                       | 4.6           | 5.1 | 5.2 | 6.1 | 6.2      | 6.3 |          |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |     |     |     |     |     |  |
| d1 h7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Gewindebohrer taps | Gewindeformer forming taps | l2     | l1     | d2   | Artikelnummer Article-No. | Stück / piece | €   |     |     |          |     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 2.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | M 3                |                            | 45.00  | 75.00  | 3.00 | E.3674.1.0250             | 81.40         |     |     |     |          |     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 3.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                            | 60.00  | 100.00 | 6.00 | E.3674.1.0300             | 102.80        |     |     |     |          |     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 3.30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | M 4                | M 3,5 x 0,5                | 60.00  | 100.00 | 6.00 | E.3674.1.0330             | 103.10        |     |     |     |          |     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 3.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | M 4 x 0,5          |                            | 60.00  | 100.00 | 6.00 | E.3674.1.0350             | 103.10        |     |     |     |          |     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 4.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | M 4,5 x 0,5        |                            | 78.00  | 115.00 | 6.00 | E.3674.1.0400             | 103.10        |     |     |     |          |     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 4.20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | M 5                | M 4,5                      | 78.00  | 115.00 | 6.00 | E.3674.1.0420             | 114.80        |     |     |     |          |     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 4.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | M 5 x 0,5          |                            | 78.00  | 115.00 | 6.00 | E.3674.1.0450             | 114.80        |     |     |     |          |     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 5.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | M 6 / M 5,5 x 0,5  |                            | 92.00  | 130.00 | 6.00 | E.3674.1.0500             | 118.00        |     |     |     |          |     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 5.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | M 6 x 0,5          |                            | 100.00 | 145.00 | 6.00 | E.3674.1.0550             | 120.10        |     |     |     |          |     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 6.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | M 7                |                            | 100.00 | 145.00 | 6.00 | E.3674.1.0600             | 120.10        |     |     |     |          |     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 6.50                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    |                            | 130.00 | 170.00 | 8.00 | E.3674.1.0650             | 157.80        |     |     |     |          |     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 6.80                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | M 8                | M 7 x 0,5                  | 130.00 | 170.00 | 8.00 | E.3674.1.0680             | 179.40        |     |     |     |          |     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |     |     |     |     |     |  |
| 7.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | M 8 x 1            |                            | 130.00 | 170.00 | 8.00 | E.3674.1.0700             | 179.40        |     |     |     |          |     |          |     |     |     |     |     |     |     |     |     |     |     |     |     |          |     |     |     |     |     |     |     |     |     |     |     |     |  |

Pilotbohrung 3-5xd empfehlenswert  
Pilot bore 3-5xd recommended

Fortsetzung auf Seite / Continuation on page 68