

Hartmetallwerkzeuge zum Innendrehen kleinster Dimensionen **System Tip Bar**

Outils en carbure p. le tournage intérieur de dimensions minces **System Tip Bar**

Carbide tools for internal turning of micro dimensions **System Tip Bar**



**Vorteile**

- Ausgezeichnete Spanabfuhr wegen der flachen, ebenen Konstruktion des Schneideinsatzes
- aussergewöhnliche Feinstbearbeitung, ohne Oberflächenverletzung, Riefen

**Avantages**

- très bonne évacuation des copeaux à cause de la géométrie plate des burins très bonne qualité
- d'usinage, excellent état de surface

**Advantages**

- excellent chip evacuation due to complete flat top face of insert
- superior finishing without chips scratching or biting

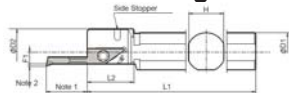
3741..

Halter für Tip-Bar-Innendrehesystem AR mit rundem Schaft

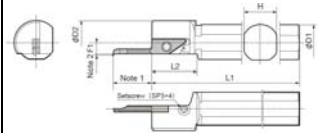
Porte-burin pour système Tip Bar pour le tournage intérieur à tige ronde

Insert holder for Tip-Bar-carbide inserts with round shank

374100..



| Beschreibung<br>Désignation<br>Description | Art.Nr./no.cde.<br>order no | Dimension [mm] |    |    |     |    |    | Ersatzteile, pièces de rechange, spare parts |                             |  |  |                             |
|--|-----------------------------|----------------|----|----|-----|----|----|--|-----------------------------|--|--|-----------------------------|
|  |                             | D1             | D2 | H  | L1  | L2 | F1 | Sp.-Schraube<br>Vice de serr.<br>Clamp screw | Schlüssel<br>vice<br>Wrench | Anschl.-Schraube<br>vice p. arrêt<br>screw stopper | Setz-Schraube<br>vice p. poser<br>Setscrew | Schlüssel<br>vice<br>wrench |
|  |                             |                |    |    |     |    |    |  |                             |  |  |                             |
| <b>S12F-SVNR12N</b>                        | 374110.050                  | 12             | 20 | 11 | 80  | 23 | 4  | SB-3080TR                                    | FT-10                       |  | SP3X4                                      | 3.74110215                  |
| <b>S14G-SVNR12N</b>                        | 374110.100                  | 14             | 20 | 13 | 90  | 23 | 4  |  |                             |  |  |                             |
| <b>S16H-SVNR12N</b>                        | 374110.150                  | 16             | 24 | 15 | 100 | 23 | 6  |  |                             |  |  |                             |
| <b>S20H-SVNR12N</b>                        | 374110.200                  | 20             | 24 | 18 | 100 | 24 | 6  |  |                             |  |  |                             |



Mit rechteckigem Schaft

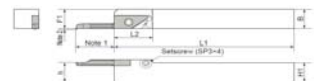
À tige rectangulaire

With rectangular shank

374110..



| Beschreibung<br>Désignation<br>Description | Art.Nr./no.cde.<br>order no | Dimension [mm] |    |     |    |    |    | Ersatzteile, pièces de rechange, spare parts |                             |  |
|--|-----------------------------|----------------|----|-----|----|----|----|--|-----------------------------|--|
|  |                             | H1=h           | B  | L1  | L2 | F1 | F3 | Sp.-Schraube<br>Vice de serr.<br>Clamp screw | Schlüssel<br>vice<br>Wrench | Setz-Schraube<br>vice p. poser<br>Setscrew |
|  |                             |                |    |     |    |    |    |  |                             |  |
| <b>SVNR 1010H-12N</b>                      | 374112.050                  | 10             | 10 | 100 | 22 | 10 | -  | SB-3080TR                                    | FT-10                       | SP3X4                                      |
| <b>SVNR 1212K-12N</b>                      | 374112.100                  | 12             | 12 | 125 | 22 | 16 | -  |  |                             |  |
| <b>SVNR 1616K-12N</b>                      | 374112.150                  | 16             | 16 | 125 | 22 | 16 | -  |  |                             |  |
| <b>SVNR 2020K-12N</b>                      | 374112.200                  | 20             | 20 | 125 | 22 | 20 | -  |  |                             |  |
| <b>SVNR 2525M-12N</b>                      | 374112.250                  | 25             | 25 | 150 | 22 | 25 | -  |  |                             |  |



VNB../VNB-S

Innendrehen

VNB../VNB-S

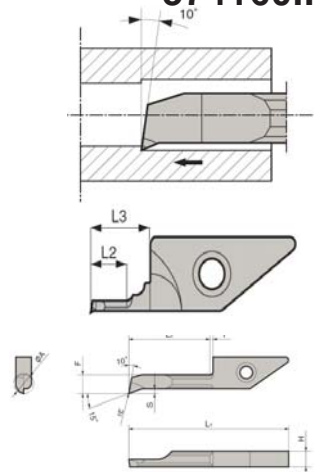
Tournage intérieur

VNB../VNB-S

Boring

374160..

| Beschreibung<br>Désignation<br>Description | Art.Nr./no.cde.<br>order no | Dimension [mm]                        |            |     |      |    |   |     |     |                          |                            | Hartmetall/métal dur/ grades |  |
|--|-----------------------------|---------------------------------------|------------|-----|------|----|---|-----|-----|--------------------------|----------------------------|------------------------------|--|
|  |                             | Min.Dreh- $\phi$<br>$\phi$ min.tourn. | H          | L1  | L2   | L3 | F | S   | re  | PVD-besch<br>revêtue PVD | unbeschicht<br>pas revêtue |                              |  |
|  |                             | Min.bore $\phi$<br>$\phi A$ [mm]      |            |     |      |    |   |     |     |                          |                            |                              |  |
| <b>VNBR</b>                                | <b>0105-0055</b>            | <b>374160.105005</b>                  | <b>1.0</b> | 3.9 | 26.5 | 5  | 7 | 0.9 | 0.2 | 0.05                     | ●                          |                              |  |
|  | <b>0206-02</b>              | <b>374160.20602</b>                   | <b>2.0</b> | 3.9 | 26.5 | 6  | - | 1.8 | 0.3 | 0.20                     | ●                          |                              |  |
|  | <b>0311-02</b>              | <b>374160.31102</b>                   | <b>3.0</b> | 3.9 | 30.8 | 11 | - | 2.6 | 0.4 | 0.20                     | ●                          |                              |  |
|  | <b>0411-02</b>              | <b>374160.41102</b>                   | <b>4.0</b> | 3.9 | 30.8 | 11 | - | 3.5 | 0.5 | 0.20                     | ●                          |                              |  |
|  | <b>0420-02S</b>             | <b>374160.42002</b>                   | <b>4.0</b> | 3.9 | 39.8 | 20 | - | 3.5 | 0.5 | 0.20                     | ●                          |                              |  |
|  | <b>0511-02</b>              | <b>374160.51102</b>                   | <b>5.0</b> | 3.9 | 30.8 | 11 | - | 4.5 | 0.7 | 0.20                     | ●                          |                              |  |
|  | <b>0630-02</b>              | <b>374160.63002</b>                   | <b>6.0</b> | 3.9 | 49.8 | 30 | - | 5.3 | 1   | 0.20                     | ●                          | 3.74160215                   |  |

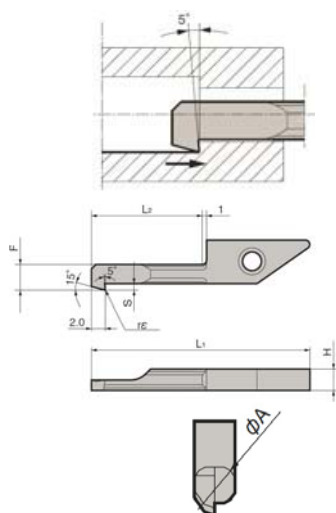


**374165..** 

Rückwärtsinnendrehen

Micro-alésage inverse

Backboring



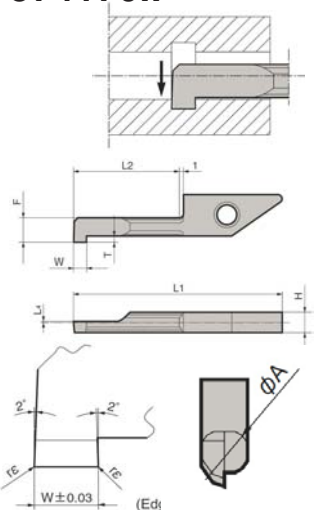
| Beschreibung<br>Désignation<br>Description | Art.Nr./no.cde.<br>order no | Dimension [mm]                        |            |     |      |    |   |     |     |       |      | Hartmetall/métal dur/ grades |                          |                              |
|--|-----------------------------|---------------------------------------|------------|-----|------|----|---|-----|-----|-------|------|------------------------------|--------------------------|------------------------------|
|  |                             | Min.Dreh- $\phi$<br>$\phi$ min.tourn. |            |     |      |    |   |     |     |       |      |                              | PVD-besch<br>revêtue PVD | unbeschichtet<br>pas revêtue |
|  |                             | Min.bore $\phi$<br>$\phi A$ [mm]      | H          | L1  | L2   | L3 | F | S   | re  | PR930 | KW10 |                              |                          |                              |
| <b>VNBTR</b>                               | <b>0411-003</b>             | <b>374165.0411003</b>                 | <b>4.0</b> | 3.9 | 30.8 | 11 | - | 3.6 | 1.0 | 0.03  |      |                              | •                        |                              |
|  | <b>0420-003</b>             | <b>374165.0420003</b>                 | <b>4.0</b> | 3.9 | 39.8 | 20 | - | 3.6 | 1.0 | 0.03  |      |                              | •                        |                              |
|  | <b>0511-003</b>             | <b>374165.0511003</b>                 | <b>5.0</b> | 3.9 | 30.8 | 11 | - | 4.6 | 1.3 | 0.03  |      |                              | •                        |                              |
|  | <b>0520-003</b>             | <b>374165.0520003</b>                 | <b>5.0</b> | 3.9 | 39.8 | 20 | - | 4.6 | 1.3 | 0.03  |      |                              | •                        |                              |
|  | <b>0411-01</b>              | <b>374165.041101</b>                  | <b>4.0</b> | 3.9 | 30.8 | 11 | - | 3.6 | 1.0 | 0.1   |      |                              | •                        |                              |
|  | <b>0420-01</b>              | <b>374165.042001</b>                  | <b>4.0</b> | 3.9 | 39.8 | 20 | - | 3.6 | 1.0 | 0.1   |      |                              | •                        |                              |
|  | <b>0511-01</b>              | <b>374165.051101</b>                  | <b>5.0</b> | 3.9 | 30.8 | 11 | - | 4.6 | 1.3 | 0.1   |      |                              | •                        |                              |
|  | <b>0520-01</b>              | <b>374165.052001</b>                  | <b>5.0</b> | 3.9 | 39.8 | 20 | - | 4.6 | 1.3 | 0.1   |      |                              | •                        | 3.74165215                   |

**374170..**

Micro-Inneneinstechen

Micro rainurage interne

Micro internal grooving



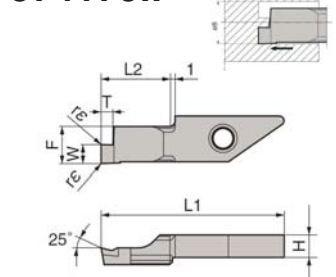
| Beschreibung<br>Désignation<br>Description | Art.Nr./no.cde.<br>order no | Dimension [mm]                        |            |     |      |    |      |     |     |       |      | Hartmetall/métal dur/ grades |                              |   |
|--|-----------------------------|---------------------------------------|------------|-----|------|----|------|-----|-----|-------|------|------------------------------|------------------------------|---|
|  |                             | Min.Dreh- $\phi$<br>$\phi$ min.tourn. |            |     |      |    |      |     |     |       |      | PVD-besch<br>revêtue PVD     | unbeschichtet<br>pas revêtue |   |
|  |                             | Min.bore $\phi$<br>$\phi A$ [mm]      | W          | re  | L2   | L1 | L4   | F   | T   | PR930 | KW10 |                              |                              |   |
| <b>3.74170215</b>                          |                             |                                       |            |     |      |    |      |     |     |       |      |                              |                              |   |
| <b>VNGR</b>                                | <b>0410-11</b>              | <b>374170.041011</b>                  | <b>4.0</b> | 1.0 | 0.05 | 11 | 30.8 | 0.1 | 3.5 | 0.8   |      |                              | •                            | • |
|  | <b>0420-11</b>              | <b>374170.042011</b>                  | <b>4.0</b> | 2.0 | 0.10 | 11 | 30.8 | 0.1 | 3.5 | 0.8   |      |                              | •                            | • |
|  | <b>0510-11</b>              | <b>374170.051011</b>                  | <b>5.0</b> | 1.0 | 0.05 | 11 | 30.8 | 0.1 | 4.4 | 1.0   |      |                              | •                            | • |
|  | <b>0520-11</b>              | <b>374170.052011</b>                  | <b>5.0</b> | 2.0 | 0.10 | 11 | 30.8 | 0.1 | 4.4 | 1.0   |      |                              | •                            | • |
|  | <b>0610-20</b>              | <b>374170.061020</b>                  | <b>6.0</b> | 1.0 | 0.05 | 20 | 39.8 | 0.3 | 5.2 | 1.8   |      |                              | •                            | • |
|  | <b>0620-20</b>              | <b>374170.062020</b>                  | <b>6.0</b> | 2.0 | 0.10 | 20 | 39.8 | 0.3 | 5.2 | 1.8   |      |                              | •                            | • |
|  | <b>0710-20</b>              | <b>374170.071020</b>                  | <b>7.0</b> | 1.0 | 0.05 | 20 | 39.8 | 0.3 | 6.2 | 2.0   |      |                              | •                            | • |
|  | <b>0720-20</b>              | <b>374170.072020</b>                  | <b>7.0</b> | 2.0 | 0.10 | 20 | 39.8 | 0.3 | 6.2 | 2.0   |      |                              | •                            | • |

**374175..**

Axial-Einstechen

p. gorges frontales

Face grooving



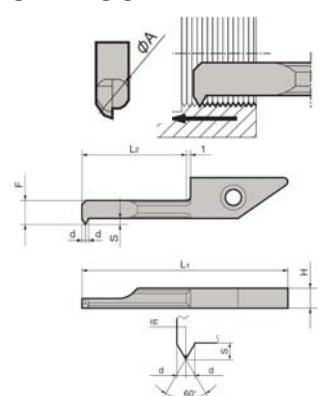
| Beschreibung<br>Désignation | Art.Nr./no.cde.<br>order no | Dimension [mm]                        |              |          |     |      |     |      |    |       |      | Hartmetall/métal dur/ grades |                              |   |   |
|-----------------------------|-----------------------------|---------------------------------------|--------------|----------|-----|------|-----|------|----|-------|------|------------------------------|------------------------------|---|---|
|                             |                             | Min.Dreh- $\phi$<br>$\phi$ min.tourn. |              |          |     |      |     |      |    |       |      | PVD-besch<br>revêtue PVD     | unbeschichtet<br>pas revêtue |   |   |
|                             |                             | $\phi A$ [mm]<br>Min. Max             | $W \pm 0.03$ | re       | H   | L1   | L2  | F    | T  | PR930 | KW10 |                              |                              |   |   |
| <b>3.74175215</b>           |                             |                                       |              |          |     |      |     |      |    |       |      |                              |                              |   |   |
| <b>VNFR</b>                 | <b>0810-10</b>              | <b>374175.081010</b>                  | <b>8.0</b>   | $\infty$ | 1.0 | 0.05 | 3.9 | 29.6 | 10 | 7.30  | 2.00 |                              |                              | • | • |
|                             | <b>0820-10</b>              | <b>374175.082010</b>                  | <b>8.0</b>   | $\infty$ | 2.0 | 0.05 | 3.9 | 29.6 | 10 | 7.30  | 2.00 |                              |                              | • | • |
|                             | <b>0830-10</b>              | <b>374170.083010</b>                  | <b>8.0</b>   | $\infty$ | 3.0 | 0.05 | 3.9 | 29.6 | 10 | 7.30  | 3.00 |                              |                              | • | • |

**374180..**

Micro-innengewinde-drehen

Micro filletage intérieur

Face grooving



| Beschreibung<br>Désignation | Art.Nr./no.cde.<br>order no | Dimension [mm]                        |           |    |     |    |    |    |     |       |      | Hartmetall/métal dur/ grades |                              |   |
|-----------------------------|-----------------------------|---------------------------------------|-----------|----|-----|----|----|----|-----|-------|------|------------------------------|------------------------------|---|
|                             |                             | Min.Dreh- $\phi$<br>$\phi$ min.tourn. |           |    |     |    |    |    |     |       |      | PVD-besch<br>revêtue PVD     | unbeschichtet<br>pas revêtue |   |
|                             |                             | $\phi A$ [mm]                         | H         | L1 | L2  | F  | S  | d  | re  | PR930 | KW10 |                              |                              |   |
| <b>3.74180215</b>           |                             |                                       |           |    |     |    |    |    |     |       |      |                              |                              |   |
| <b>VNTR</b>                 | <b>045-11</b>               | <b>374180.04511</b>                   | <b>45</b> | 39 | 308 | 11 | 36 | 13 | 060 | 005   |      |                              | •                            | • |
|                             | <b>060-11</b>               | <b>374180.06011</b>                   | <b>60</b> | 39 | 308 | 11 | 46 | 16 | 080 | 005   |      |                              | •                            | • |

Das System für hohe Bearbeitungsgenauigkeit  
**Sytem Tip Bar Kit 2**  
 zum Innendrehen, Rückwärts-Innendrehen, Stechen, Axialstechen & Gewindefräsen

le système pour une grande précision de tournage  
**Le système Tip Bar Kit 2**  
 p. tournage intérieur, alésage inverse, rainurage, gorges frontales & micro filetage

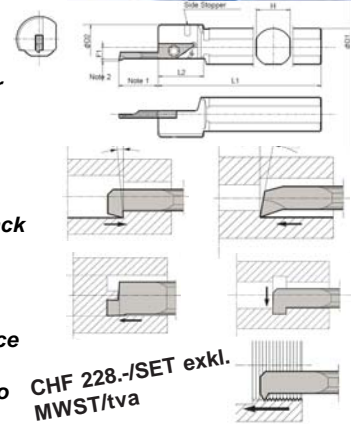
Tool system for a high precision in turning  
**The system Tip Bar Kit 2**  
 for internal turning, back-turning, internal grooving, face grooving & micro threading



- S16H-SVNR12N Standardhalter rund mit Einspannflächen
- VNBR0411-02PR930 zum Innendrehen
- VNBTR0411-01PR930 zum Rückwärts-Innendrehen
- VNGR0420-11PR930 zum Micro Innen-Einstecken
- VNFR0820-10PR930 z. Axial-Einstecken
- VNTR045-11PR930 z. Micro-Innengewindedrehen
- Hartmetallsorte PR930

- S16H-SVNR12N porte-plaquette standard ronde plates pour le serrage
- VNBR0411-02PR930 p. tournage intérieur
- VNBTR0411-01PR930 p. alésage inverse
- VNGR0420-11PR930 p. micro rainurage interne
- VNFR0820-10PR930 p. gorges frontales
- VNTR045-11PR930 p. micro filletage intérieur
- Nuance métal dur PR930

- S16H-SVNR12N standard round tool-holder, flats for clamping
- VNBR0411-02PR930 for internal turning
- VNBTR0411-01PR930 for back turning
- VNGR0420-11PR930 for micro internal grooving
- VNFR0820-10PR930 for face grooving
- VNTR045-11PR930 for micro threading
- Carbide grade PR930



**Bestellnummer/ no.commande Tip Bar Set 2: 374100.100 228.-CHF/Set**

**System-Tip-Bar-Set 3 , D=16mm Halter, nur zum Innendrehen. bestehend aus:**

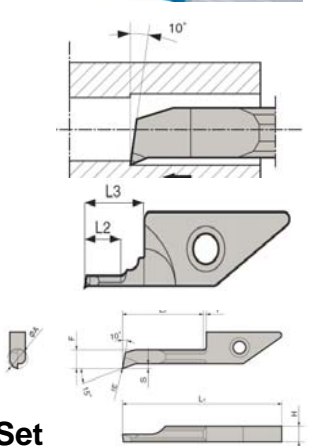
- Halter(16mm) S16H-SVNR12 N
- Ausdreheinsatz 1,0mm : VNBR0105-005S PR930
- Ausdreheinsatz 2,0mm : VNBR0206-02 PR930
- Ausdreheinsatz 3,0mm : VNBR0311-02 PR930
- Ausdreheinsatz 4,0mm : VNBR0411-02 PR930
- Ausdreheinsatz 5,0mm : VNBR0511-02 PR930

**Système-Tip-Bar-Set 3 D=16mm porte outil, p. tournage intérieur existante de:**

- Porte outil(16mm) S16H-SVNR12 N
- Barre 1,0mm : VNBR0105-005S PR930
- Barre 2,0mm : VNBR0206-02 PR930
- Barre 3,0mm : VNBR0311-02 PR930
- Barre 4,0mm : VNBR0411-02 PR930
- Barre 5,0mm : VNBR0511-02 PR930

**System-Tip-Bar-Set 3 D=16mm tool holder, for internal turning, composed of:**

- Bar holder(16mm) S16H-SVNR12 N
- Bar 1,0mm : VNBR0105-005S PR930
- Bar 2,0mm : VNBR0206-02 PR930
- Bar 3,0mm : VNBR0311-02 PR930
- Bar 4,0mm : VNBR0411-02 PR930
- Bar 5,0mm : VNBR0511-02 PR930



**Bestellnummer/ no.commande Tip Bar Set 3: 374100.200 228.-CHF/Set**

**Empfohlenen Schnittdaten für VNB, VNB-NB, VNB**

**Vitesse de coupe et avances recommandées p. VNB, VNB-NB, VNB**

**Recommneded cutting conditions for VNB, VNB-NB, VNB**

| 3.74160DrehenVNB_SW<br>Material<br>Werkstück<br>matériel de la pièce<br>Workpiece Material           | Empfohlene Hartmetallsorten, nuances carbure recomm.,recomm.insert grades (Schnittgeschwindigkeit, vitesse de coupe, cutting Speed: m/min) |                    |        |         |     |       |      | VNB02 Type |       | VNB03 Type |       | VNB04 VNB04 Type |       | VNB05 VNB06 VNB07 Type VNB05 |       | Remarks                |
|--|--|--------------------|--------|---------|-----|-------|------|------------|-------|------------|-------|------------------|-------|------------------------------|-------|------------------------|
|  | Cermet   | PVD Coated Carbide |        | Carbide | CBN | PCD   |      | ap         | f     | ap         | f     | ap               | f     | ap                           | f     |                        |
|  |  | TC60               | PR915  |         |     | PR930 | KW10 |            |       |            |       |                  |       |                              |       |                        |
| Kohlenstoff-Stähle, legierte Stähle/aciers de construction,aciers alliés/ carbon steel / alloy Steel | 60~120   | 50~150             | 30~100 |         |     |       |      | ~0.3       | ~0.03 | ~0.4       | ~0.04 | ~0.45            | ~0.07 | ~0.5                         | ~0.1  | Kühlmittel lubrication |
| INOX-Stähle, aciers inoxydables,Stainless Steel  | 50~100   | 50~150             | 30~80  |         |     |       |      | ~0.3       | ~0.02 | ~0.4       | ~0.03 | ~0.45            | ~0.05 | ~0.5                         | ~0.07 |                        |
| Nichtmetallische Werkstoffe, matériel non métalliques,non-ferrous metals                             |  |                    |        | ~100    |     | ~300  | ~300 | ~0.3       | ~0.05 | ~0.4       | ~0.06 | ~0.45            | ~0.1  | ~0.5                         | ~0.15 |                        |

é/appropriate