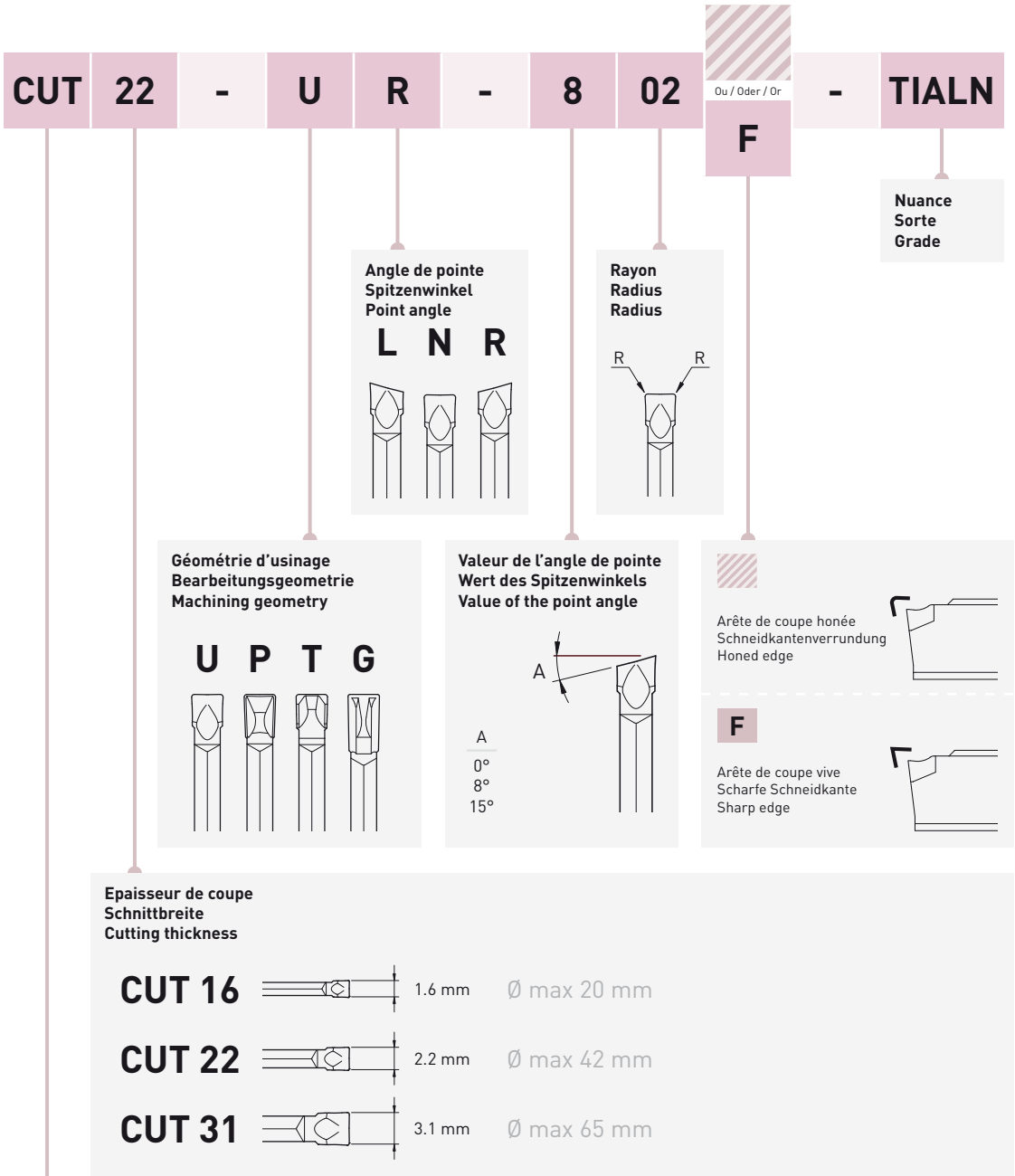


# CUT-Line



**APPLITEC**  
CUTTING TOOLS

|                                                                                                                                         |                           |         |
|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------|---------|
| Codification<br>Kodifizierung<br>Coding guide                                                                                           |                           | > 11.03 |
| Infos et avantages, géométries de coupe<br>Infos und Vorteile, Spanformgeometrie<br>Infos and advantages, cutting geometries            |                           | > 11.04 |
| Nuances<br>Sorten<br>Grades                                                                                                             |                           | > 11.06 |
|                                                                                                                                         | <b>CUT 16</b> Ø max 20 mm | > 11.08 |
| Paramètres de coupe indicatifs<br>Empfohlene Schnittwerte<br>Standard machining data                                                    | <b>CUT 22</b> Ø max 42 mm | > 11.10 |
|                                                                                                                                         | <b>CUT 31</b> Ø max 65 mm | > 11.12 |
|                                                                                                                                         | <b>H</b>                  | > 11.14 |
| Porte-outils<br>Halter<br>Holders                                                                                                       | <b>HX</b>                 | > 11.15 |
|                                                                                                                                         | <b>HZ</b>                 | > 11.16 |
| Porte-outils avec arrosage intégré<br>Halter mit integrierter Kühlmittelzufuhr<br>Holders with integrated coolant supply                | <b>HZ-JET</b>             | > 11.17 |
|                                                                                                                                         | <b>U</b>                  | > 11.18 |
| Plaquettes de tronçonnage<br>Abstechwendeplatten<br>Cut off inserts                                                                     | <b>P</b>                  | > 11.20 |
|                                                                                                                                         | <b>T</b>                  | > 11.24 |
| Plaquettes de fonçage, tournage et tronçonnage<br>WSP zum einstecken, drehen und abstechen<br>Inserts for grooving, turning and cut off | <b>G</b>                  | > 11.25 |



Applitec CUT-Line  
Applitec CUT-Line  
Applitec CUT-Line

Système performant dédié pour le tronçonnage  
Leistungstarkes System für das Abstechen  
High-performance system for cutting

# CUT-Line

## Infos et avantages

Infos und Vorteile

Infos and advantages

Porte-outils / Halter / Holders

**H**

Système de serrage à bride, version courte  
Spann-Klemmsystem, kurze Ausführung  
Independent top clamp system, short version

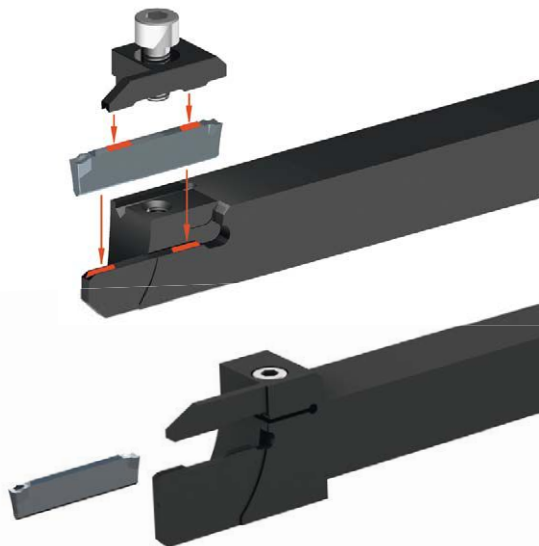
**HX**

Système de serrage à bride, version longue  
Spann-Klemmsystem, lange Ausführung  
Independent top clamp system, long version

**HZ**

Porte-outils de grande capacité  
Klemmhalter mit grosser Kapazität  
High capacity tool holders

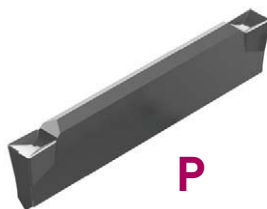
*Very rigid clamping system*



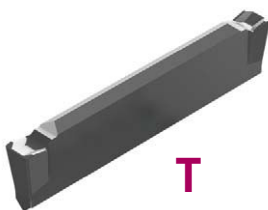
Plaquettes / WSP / Inserts



**U**



**P**



**T**

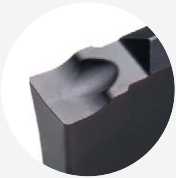
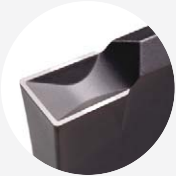


**G**

Toutes les géométries des plaquettes sont conçues pour être entièrement compatibles avec les porte-outils.

Alle Geometrien der Wendschneidplatten sind so gestaltet, dass sie vollständig mit den Haltern kompatibel sind.

All the geometries of the inserts are designed to be fully compatible with the holders.

|            |                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UN         |  <ul style="list-style-type: none"> <li>• géométrie positive universelle, bonne maîtrise du copeau</li> <li>• Universalgeometrie positive gute Beherrschung der Späne</li> <li>• all-round insert with efficient chip control</li> </ul>                                                                                                 |
| UR<br>UL   |                                                                                                                                                                                                                                                                                                                                                                                                                           |
| PN         |  <ul style="list-style-type: none"> <li>• géométrie légèrement positive pour les aciers, aciers au carbone, aciers alliés</li> <li>• leicht positive Geometrie für Stahl, Kohlenstoffstahl, legiertem Stahl</li> <li>• slightly positive geometry for steel, carbon steel, alloyed steel</li> </ul>                                      |
| PR         |                                                                                                                                                                                                                                                                                                                                                                                                                           |
| PNW<br>PRW |  <ul style="list-style-type: none"> <li>• géométrie neutre pour les laitons</li> <li>• neutrale Geometrie für Messing</li> <li>• neutral geometry for brasses</li> </ul>                                                                                                                                                                |
| TN         |  <ul style="list-style-type: none"> <li>• géométrie négative pour de fortes avances dans des conditions de rigidité favorables</li> <li>• negative Geometrie für hohe Vorschübe in guten Stabilitätsfällen</li> <li>• negative geometry for high feed rate in case of good stability</li> </ul>                                        |
| GN         |  <ul style="list-style-type: none"> <li>• géométrie universelle pour fonçage-tournage, peut également être utilisée en tronçonnage</li> <li>• Universalgeometrie zum einstecken-langdrehen, kann auch zum abstechen verwendet werden</li> <li>• all-round insert for grooving and turning, can also be used for parting off</li> </ul> |

## Nuances

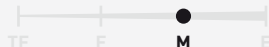
Sorten

Grades

### TiAlN



**Revêtement PVD**  
PVD Beschichtung  
PVD coating



- pour l'usinage des aciers, aciers inoxydables et alliages de titane
- 1<sup>er</sup> choix pour les avances faibles à modérées

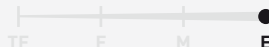
- für die Bearbeitung von Stahl, rostfreien Stahl und Titanlegierungen
- erste Wahl für niedrige bis mittlere Vorschübe

- for machining of steel, stainless steel and titanium alloys
- first choice for low to average cutting speed

### Tmax



**Revêtement PVD**  
PVD Beschichtung  
PVD coating



- nuance pour usinage moyen à lourd des aciers, aciers alliés et inoxydables
- bonne résistance aux températures d'usinage élevées
- 1<sup>er</sup> choix pour le tronçonnage des aciers au carbone et des aciers fortement alliés

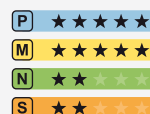
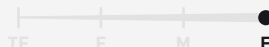
- Sorte für mittlere bis hohe Belastung in Stahl und legierter Stahlbearbeitung
- gute Bearbeitungswarmfestigkeit
- erste Wahl für die Bearbeitung von legiertem Kohlenstahl und hoch legiertem Stahl

- grade for medium to heavy machining of steel, stainless steel and alloyed steel
- high machining heat resistance
- first choice for the machining of carbon steel and high alloyed steel

### Zmax



**Revêtement PVD**  
PVD Beschichtung  
PVD coating



- pour l'usinage des aciers, aciers inoxydables et alliages de titane en conditions défavorables
- bonne résistance aux chocs à des vitesses de coupe moyennes à faibles
- 1<sup>er</sup> choix pour le tronçonnage en coupe interrompue

- für die Bearbeitung von Stahl, rostfreiem Stahl und Titanlegierungen in schwierige Bearbeitungsfälle
- gute Bruchfestigkeit mit durchschnittliche bis niedrige Schnittgeschwindigkeit
- erste Wahl für die Bearbeitung in unterbrochenen Schnitte

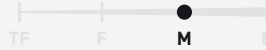
- for machining of steel, stainless steel and titanium alloys in unfavourable machining conditions
- good impact resistance with average to low cutting speed
- first choice for machining in interrupted cut

#### HTA



#### Revêtement PVD

PVD Beschichtung  
PVD coating



|   |       |
|---|-------|
| P | ★★★★★ |
| M | ★★★★★ |
| N | ★★★★★ |
| S | ★★★★★ |

- très bonne résistance à l'usure
- pour le tronçonnage des aciers, aciers inoxydables et alliages de titane
- déconseillé en coupe interrompue

- sehr gute Verschleissfestigkeit
- für die Bearbeitung von Stahl, rostfreiem Stahl und Titanlegierung
- für unterbrochene Schnitte ungeeignet

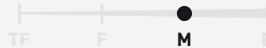
- very good wear resistance
- for steel, stainless steel and titanium alloys machining
- not suitable for interrupted cut

#### HAC



#### Revêtement PVD

PVD Beschichtung  
PVD coating



|   |       |
|---|-------|
| P | ★★★★★ |
| M | ★★★★★ |
| N | ★★★★★ |
| S | ★★★★★ |

- nuance pour métaux non ferreux
- très faible coefficient de frottement
- 1<sup>er</sup> choix pour l'usinage des aluminiums, des cuivres et titanes faiblement alliés

- Sorte für Nichteisenmetalle
- sehr geringer Reibwert
- erste Wahl für die Bearbeitung von Aluminium, Kupfer und niedriglegiertem Titan

- grade for non-ferrous materials
- very low friction ratio
- first choice for Aluminium, copper and low alloyed titanium

#### N



#### Non revêtu

Unbeschichtet  
Uncoated

|   |       |
|---|-------|
| P | ★☆☆☆☆ |
| M | ★☆☆☆☆ |
| N | ★★★★★ |
| S | ★★★★★ |

- idéal pour l'usinage du laiton, uniquement disponible en géométries PNW / PRW

- Ideal für die Bearbeitung von Messing, nur in den Geometrien PNW / PRW erhältlich

- ideal for machining brass, only available in PNW / PRW geometries

# CUT-Line

## Paramètres de coupe indicatifs

Empfohlene Schnittwerte

Standard machining data

★★★★★

★★★★

★★★

## CUT 16

CUT 16

|                                                                                     |                                                                                   |                                                                                   | P<br>Acier<br>Stahl<br>Steel                                 |          |                                                                       |           |                                                                |           | M<br>Inox<br>Rostfreistahl<br>Stainless steel                                                 |           |           |           |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------|----------|-----------------------------------------------------------------------|-----------|----------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------|-----------|-----------|-----------|
|                                                                                     |                                                                                   |                                                                                   | Acier de décolletage<br>Automatenstahl<br>Free-cutting steel |          | Acier faiblement allié<br>Leicht legierter Stahl<br>Low alloyed steel |           | Acier fortement allié<br>Legierter Stahl<br>High alloyed steel |           | Austénitique et martensitique<br>Austenitisch und martensitisch<br>Austenitic and martensitic |           |           |           |
|                                                                                     |                                                                                   |                                                                                   | VC (m/min)                                                   | F (mm/U) | VC (m/min)                                                            | F (mm/U)  | VC (m/min)                                                     | F (mm/U)  | VC (m/min)                                                                                    | F (mm/U)  |           |           |
| Avance standard<br>Standard Vorschub<br>Standard feed rate                          |  | CUT16-UN-001                                                                      | TiAlN                                                        | 90-140   | 0.03-0.07                                                             | 60-120    | 0.03-0.07                                                      | 50-100    | 0.04-0.08                                                                                     | 50-120    | 0.03-0.07 |           |
|                                                                                     |                                                                                   |                                                                                   | Tmax                                                         | 100-170  | 0.03-0.07                                                             | 70-150    | 0.03-0.07                                                      | 60-120    | 0.04-0.08                                                                                     | 60-150    | 0.03-0.07 |           |
|                                                                                     |                                                                                   |                                                                                   | Zmax                                                         | 80-130*  | 0.04-0.10                                                             | 50-110*   | 0.04-0.10                                                      | 50-90*    | 0.04-0.08                                                                                     | 50-120*   | 0.04-0.10 |           |
|                                                                                     |                                                                                   |                                                                                   | HTA                                                          | 70-120   | 0.03-0.05                                                             | 60-100    | 0.03-0.05                                                      | 50-90     | 0.03-0.05                                                                                     | 50-100    | 0.03-0.06 |           |
|                                                                                     |                                                                                   |                                                                                   | HAC                                                          |          |                                                                       |           |                                                                |           |                                                                                               |           |           |           |
|                                                                                     |  | CUT16-PR-801                                                                      | TiAlN                                                        | 90-140   | 0.03-0.07                                                             | 60-120    | 0.03-0.07                                                      | 50-100    | 0.03-0.07                                                                                     | 50-120    | 0.03-0.07 |           |
|                                                                                     |                                                                                   |                                                                                   | Tmax                                                         | 100-170  | 0.03-0.07                                                             | 70-150    | 0.03-0.07                                                      | 60-120    | 0.03-0.07                                                                                     | 60-150    | 0.03-0.07 |           |
|                                                                                     |  | CUT16-PRW-801                                                                     | N                                                            |          |                                                                       |           |                                                                |           |                                                                                               |           |           |           |
|                                                                                     | Avance modérée<br>Niedriger Vorschub<br>Low feed rate                             |  | CUT16-UN-000F                                                | TiAlN    | 80-130                                                                | 0.02-0.05 | 50-110                                                         | 0.02-0.05 | 50-90                                                                                         | 0.02-0.05 | 50-80     | 0.02-0.05 |
|                                                                                     |                                                                                   |                                                                                   |                                                              | HTA      | 60-100                                                                | 0.01-0.04 | 50-90                                                          | 0.01-0.04 | 50-80                                                                                         | 0.02-0.05 | 50-80     | 0.02-0.05 |
|                                                                                     |                                                                                   |                                                                                   | HAC                                                          |          |                                                                       |           |                                                                |           |                                                                                               |           |           |           |
|    |                                                                                   | CUT16-UL/R-800F                                                                   | TiAlN                                                        | 80-130   | 0.02-0.05                                                             | 50-110    | 0.02-0.05                                                      | 50-90     | 0.02-0.05                                                                                     | 50-80     | 0.02-0.05 |           |
|                                                                                     |                                                                                   |                                                                                   | HTA                                                          | 60-100   | 0.01-0.04                                                             | 50-90     | 0.01-0.04                                                      | 50-80     | 0.02-0.05                                                                                     | 50-80     | 0.02-0.05 |           |
|                                                                                     |                                                                                   |                                                                                   | HAC                                                          |          |                                                                       |           |                                                                |           |                                                                                               |           |           |           |
|  |                                                                                   | CUT16-UL/R-1500F                                                                  | TiAlN                                                        | 80-130   | 0.02-0.05                                                             | 50-110    | 0.02-0.05                                                      | 50-90     | 0.02-0.05                                                                                     | 50-80     | 0.02-0.05 |           |
|                                                                                     |                                                                                   |                                                                                   | HTA                                                          | 60-100   | 0.01-0.04                                                             | 50-90     | 0.01-0.04                                                      | 50-80     | 0.02-0.05                                                                                     | 50-80     | 0.02-0.05 |           |
|                                                                                     |                                                                                   |                                                                                   | HAC                                                          |          |                                                                       |           |                                                                |           |                                                                                               |           |           |           |

\* premier choix en cas  
de coupe interrompue

\*\* arête de coupe vive

\* erste Wahl für  
unterbrochener Schnitt

\*\* scharfe Schneidkante

\* first choice  
for interrupted cut

\*\* sharp cutting edge

## Paramètres de coupe indicatifs

Empfohlene Schnittwerte

Standard machining data

| [N] Alliages d'aluminium et non ferreux<br>Aluminium- und Nichteisenlegierungen<br>Aluminium and non-ferrous alloys |           |                                                                                |           |                            |           |                                                       |           | [S] Titane<br>Titan<br>Titanium |           |            |           |
|---------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------|-----------|----------------------------|-----------|-------------------------------------------------------|-----------|---------------------------------|-----------|------------|-----------|
| Aluminium                                                                                                           |           | Alu silicium max. 5%<br>Aluminiumsilicium max. 5%<br>Aluminium silicon max. 5% |           | Cuivre<br>Kupfer<br>Copper |           | Laiton & bronze<br>Messing & Bronze<br>Brass & bronze |           | Gr. 1 - 3                       |           | Gr. 4 - 5  |           |
| VC (m/min)                                                                                                          | F (mm/U)  | VC (m/min)                                                                     | F (mm/U)  | VC (m/min)                 | F (mm/U)  | VC (m/min)                                            | F (mm/U)  | VC (m/min)                      | F (mm/U)  | VC (m/min) | F (mm/U)  |
| 100-250                                                                                                             | 0.03-0.10 | 100-250                                                                        | 0.03-0.10 | 100-300                    | 0.03-0.10 | 100-300                                               | 0.03-0.10 |                                 |           | 30-60      | 0.04-0.08 |
|                                                                                                                     |           |                                                                                |           |                            |           |                                                       |           |                                 |           |            |           |
| 100-300                                                                                                             | 0.04-0.10 | 100-250                                                                        | 0.04-0.10 | 100-300                    | 0.03-0.08 | 150-300                                               | 0.03-0.08 |                                 |           | 30-60      | 0.04-0.08 |
| 150-300                                                                                                             | 0.04-0.15 | 100-300                                                                        | 0.04-0.10 | 100-300                    | 0.04-0.10 | 150-300                                               | 0.02-0.08 | 30-60                           | 0.04-0.08 | 30-60      | 0.04-0.08 |
|                                                                                                                     |           |                                                                                |           |                            |           | 150-300                                               | 0.03-0.10 |                                 |           |            |           |
|                                                                                                                     |           |                                                                                |           |                            |           |                                                       |           |                                 |           |            |           |
|                                                                                                                     |           |                                                                                |           |                            |           | 100-500                                               | 0.02-0.10 |                                 |           |            |           |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.01-0.04 | 100-250                    | 0.01-0.04 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.01-0.04 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.02-0.06 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 | 30-60                           | 0.02-0.06 | 30-60      | 0.02-0.06 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.01-0.04 | 100-250                    | 0.01-0.04 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.01-0.04 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.02-0.06 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 | 30-60                           | 0.02-0.06 | 30-60      | 0.02-0.06 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.01-0.04 | 100-250                    | 0.01-0.04 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.01-0.04 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.02-0.06 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 | 30-60                           | 0.02-0.06 | 30-60      | 0.02-0.06 |

# CUT-Line

## Paramètres de coupe indicatifs

Empfohlene Schnittwerte

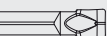
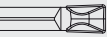
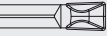
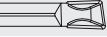
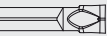
Standard machining data

★★★★★

★★★★

★★★

## CUT 22

|                                                                         |                                                                                                                            |       | <div>P</div> <div>Acier<br/>Stahl<br/>Steel</div>            |           |                                                                       |           |                                                                |           | <div>M</div> <div>Inox<br/>Rostfreistahl<br/>Stainless steel</div>                            |           |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------|--------------------------------------------------------------|-----------|-----------------------------------------------------------------------|-----------|----------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------|-----------|
|                                                                         |                                                                                                                            |       | Acier de décolletage<br>Automatenstahl<br>Free-cutting steel |           | Acier faiblement allié<br>Leicht legierter Stahl<br>Low alloyed steel |           | Acier fortement allié<br>Legierter Stahl<br>High alloyed steel |           | Austénitique et martensitique<br>Austenitisch und martensitisch<br>Austenitic and martensitic |           |
|                                                                         |                                                                                                                            |       | VC (m/min)                                                   | F (mm/U)  | VC (m/min)                                                            | F (mm/U)  | VC (m/min)                                                     | F (mm/U)  | VC (m/min)                                                                                    | F (mm/U)  |
| <div>Avance standard<br/>Standard Vorschub<br/>Standard feed rate</div> | <div>CUT22-UN-002<br/>CUT22-UR-802</div>  | TiAlN | 90-140                                                       | 0.04-0.08 | 60-120                                                                | 0.04-0.08 | 50-100                                                         | 0.04-0.08 | 50-120                                                                                        | 0.04-0.08 |
|                                                                         |                                                                                                                            | Tmax  | 100-170                                                      | 0.04-0.08 | 70-150                                                                | 0.04-0.08 | 60-120                                                         | 0.04-0.08 | 60-150                                                                                        | 0.04-0.08 |
|                                                                         |                                                                                                                            | Zmax  | 80-130*                                                      | 0.04-0.10 | 50-110*                                                               | 0.04-0.10 | 50-90*                                                         | 0.04-0.08 | 50-120*                                                                                       | 0.04-0.10 |
|                                                                         |                                                                                                                            | HTA   | 70-120                                                       | 0.04-0.06 | 60-100                                                                | 0.04-0.06 | 50-90                                                          | 0.04-0.06 | 50-100                                                                                        | 0.04-0.06 |
|                                                                         |                                                                                                                            | HAC   |                                                              |           |                                                                       |           |                                                                |           |                                                                                               |           |
|                                                                         |                                                                                                                            |       |                                                              |           |                                                                       |           |                                                                |           |                                                                                               |           |
|                                                                         | <div>CUT22-PN-002</div>                   | TiAlN | 90-140                                                       | 0.04-0.10 | 60-120                                                                | 0.04-0.08 | 50-100                                                         | 0.04-0.08 |                                                                                               |           |
|                                                                         |                                                                                                                            | Tmax  | 100-170                                                      | 0.04-0.10 | 70-150                                                                | 0.04-0.10 | 60-120                                                         | 0.04-0.10 |                                                                                               |           |
|                                                                         | <div>CUT22-PNW-002</div>                  | N     |                                                              |           |                                                                       |           |                                                                |           |                                                                                               |           |
|                                                                         | <div>CUT22-PR-002</div>                   | TiAlN | 90-140                                                       | 0.04-0.08 | 60-120                                                                | 0.04-0.08 | 50-100                                                         | 0.04-0.08 | 50-120                                                                                        | 0.04-0.08 |
|                                                                         |                                                                                                                            | Tmax  | 100-170                                                      | 0.04-0.08 | 70-150                                                                | 0.04-0.08 | 60-120                                                         | 0.04-0.08 | 60-150                                                                                        | 0.04-0.08 |
|                                                                         | <div>CUT22-PRW-002</div>                  | N     |                                                              |           |                                                                       |           |                                                                |           |                                                                                               |           |
|                                                                         | <div>CUT22-TN-002</div>                   | TiAlN | 90-140                                                       | 0.08-0.18 | 60-120                                                                | 0.08-0.18 | 50-100                                                         | 0.08-0.15 | 50-120                                                                                        | 0.08-0.20 |
|                                                                         |                                                                                                                            | Tmax  | 100-170                                                      | 0.08-0.18 | 70-150                                                                | 0.08-0.18 | 60-120                                                         | 0.08-0.15 | 60-150                                                                                        | 0.08-0.20 |
|                                                                         |                                                                                                                            | Zmax  | 80-130*                                                      | 0.08-0.18 | 50-110*                                                               | 0.08-0.18 | 50-90*                                                         | 0.08-0.15 |                                                                                               |           |
|                                                                         |                                                                                                                            |       |                                                              |           |                                                                       |           |                                                                |           |                                                                                               |           |
|                                                                         | <div>CUT22-GN-002</div> <div>***</div>  | TiAlN | 90-140                                                       | 0.03-0.12 | 60-120                                                                | 0.03-0.12 | 50-100                                                         | 0.03-0.10 | 50-120                                                                                        | 0.03-0.08 |
|                                                                         |                                                                                                                            | Tmax  | 100-170                                                      | 0.03-0.12 | 70-150                                                                | 0.03-0.12 | 60-120                                                         | 0.03-0.10 | 70-120                                                                                        | 0.03-0.08 |
|                                                                         |                                                                                                                            | AC    |                                                              |           |                                                                       |           |                                                                |           |                                                                                               |           |
| <div>Avance modérée<br/>Niedriger Vorschub<br/>Low feed rate</div>      | <div>CUT22-UN-000F</div>                | TiAlN | 80-130                                                       | 0.02-0.05 | 50-110                                                                | 0.02-0.05 | 50-90                                                          | 0.02-0.05 | 50-80                                                                                         | 0.02-0.05 |
|                                                                         |                                                                                                                            | HTA   | 60-100                                                       | 0.01-0.04 | 50-90                                                                 | 0.01-0.04 | 50-80                                                          | 0.02-0.05 | 50-80                                                                                         | 0.02-0.05 |
|                                                                         |                                                                                                                            | HAC   |                                                              |           |                                                                       |           |                                                                |           |                                                                                               |           |
|                                                                         | <div>CUT22-UL/R-800F</div>              | TiAlN | 80-130                                                       | 0.02-0.05 | 50-110                                                                | 0.02-0.05 | 50-90                                                          | 0.02-0.05 | 50-80                                                                                         | 0.02-0.05 |
|                                                                         |                                                                                                                            | HTA   | 60-100                                                       | 0.01-0.04 | 50-90                                                                 | 0.01-0.04 | 50-80                                                          | 0.02-0.05 | 50-80                                                                                         | 0.02-0.05 |
|                                                                         |                                                                                                                            | HAC   |                                                              |           |                                                                       |           |                                                                |           |                                                                                               |           |
|                                                                         | <div>CUT22-UL/R-802F</div>              | TiAlN | 80-130                                                       | 0.02-0.05 | 50-110                                                                | 0.02-0.05 | 50-90                                                          | 0.02-0.05 | 50-80                                                                                         | 0.02-0.05 |
|                                                                         |                                                                                                                            | HTA   | 60-100                                                       | 0.01-0.04 | 50-90                                                                 | 0.01-0.04 | 50-80                                                          | 0.02-0.05 | 50-80                                                                                         | 0.02-0.05 |
|                                                                         |                                                                                                                            | HAC   |                                                              |           |                                                                       |           |                                                                |           |                                                                                               |           |
|                                                                         | <div>CUT22-UL/R-1500F</div>             | TiAlN | 80-130                                                       | 0.02-0.05 | 50-110                                                                | 0.02-0.05 | 50-90                                                          | 0.02-0.05 | 50-80                                                                                         | 0.02-0.05 |
|                                                                         |                                                                                                                            | HTA   | 60-100                                                       | 0.01-0.04 | 50-90                                                                 | 0.01-0.04 | 50-80                                                          | 0.02-0.05 | 50-80                                                                                         | 0.02-0.05 |
|                                                                         |                                                                                                                            | HAC   |                                                              |           |                                                                       |           |                                                                |           |                                                                                               |           |

\* premier choix en cas de coupe interrompue

\*\* arête de coupe vive

\*\*\* Pour opérations de fonçage-tournage (évent. tronçonnage)

\* erste Wahl für unterbrochener Schnitt

\*\* scharfe Schneidkante

\*\*\* Für Stech- und Drehoperationen (event. abstechen)

\* first choice

for interrupted cut

\*\* sharp cutting edge

\*\*\* For grooving and turning operations (event. parting off)

## Paramètres de coupe indicatifs

Empfohlene Schnittwerte

Standard machining data

| [N] Alliages d'aluminium et non ferreux<br>Aluminium- und Nichteisenlegierungen<br>Aluminium and non-ferrous alloys |           |                                                                                |           |                            |           |                                                       |           | [S] Titane<br>Titan<br>Titanium |           |            |           |
|---------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------|-----------|----------------------------|-----------|-------------------------------------------------------|-----------|---------------------------------|-----------|------------|-----------|
| Aluminium                                                                                                           |           | Alu silicium max. 5%<br>Aluminiumsilicium max. 5%<br>Aluminium silicon max. 5% |           | Cuivre<br>Kupfer<br>Copper |           | Laiton & bronze<br>Messing & Bronze<br>Brass & bronze |           | Gr. 1 - 3                       |           | Gr. 4 - 5  |           |
| VC (m/min)                                                                                                          | F (mm/U)  | VC (m/min)                                                                     | F (mm/U)  | VC (m/min)                 | F (mm/U)  | VC (m/min)                                            | F (mm/U)  | VC (m/min)                      | F (mm/U)  | VC (m/min) | F (mm/U)  |
| 100-250                                                                                                             | 0.03-0.10 | 100-250                                                                        | 0.03-0.10 | 100-300                    | 0.03-0.10 | 100-300                                               | 0.03-0.10 |                                 |           | 30-60      | 0.04-0.08 |
|                                                                                                                     |           |                                                                                |           |                            |           |                                                       |           |                                 |           |            |           |
| 100-300                                                                                                             | 0.04-0.10 | 100-250                                                                        | 0.04-0.10 | 100-300                    | 0.03-0.08 | 150-300                                               | 0.03-0.08 |                                 |           | 30-60      | 0.04-0.08 |
| 150-300                                                                                                             | 0.04-0.15 | 100-300                                                                        | 0.04-0.10 | 100-300                    | 0.04-0.10 | 150-300                                               | 0.02-0.08 | 30-60                           | 0.04-0.08 | 30-60      | 0.04-0.08 |
|                                                                                                                     |           |                                                                                |           |                            |           | 150-300                                               | 0.03-0.10 |                                 |           |            |           |
|                                                                                                                     |           |                                                                                |           |                            |           |                                                       |           |                                 |           |            |           |
|                                                                                                                     |           |                                                                                |           |                            |           | 100-500                                               | 0.02-0.10 |                                 |           |            |           |
|                                                                                                                     |           |                                                                                |           |                            |           | 150-300                                               | 0.03-0.10 |                                 |           |            |           |
|                                                                                                                     |           |                                                                                |           |                            |           |                                                       |           |                                 |           |            |           |
|                                                                                                                     |           |                                                                                |           |                            |           | 100-500                                               | 0.02-0.10 |                                 |           |            |           |
|                                                                                                                     |           |                                                                                |           |                            |           | 150-300                                               | 0.05-0.20 |                                 |           |            |           |
|                                                                                                                     |           |                                                                                |           |                            |           |                                                       |           |                                 |           |            |           |
| 100-300                                                                                                             | 0.03-0.12 | 100-200                                                                        | 0.03-0.10 | 100-200                    | 0.03-0.10 | 100-300                                               | 0.03-0.12 |                                 |           | 30-60      | 0.04-0.08 |
|                                                                                                                     |           |                                                                                |           |                            |           | 100-300                                               | 0.03-0.12 |                                 |           |            |           |
| 100-300                                                                                                             | 0.03-0.12 | 100-200                                                                        | 0.03-0.10 | 100-200                    | 0.03-0.10 | 100-300                                               | 0.03-0.12 | 30-60                           | 0.04-0.08 | 30-60      | 0.04-0.08 |
|                                                                                                                     |           |                                                                                |           |                            |           |                                                       |           |                                 |           |            |           |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.01-0.04 | 100-250                    | 0.01-0.04 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.01-0.04 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.02-0.06 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 | 30-60                           | 0.02-0.06 | 30-60      | 0.02-0.06 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.01-0.04 | 100-250                    | 0.01-0.04 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.01-0.04 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.02-0.06 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 | 30-60                           | 0.02-0.06 | 30-60      | 0.02-0.06 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.01-0.04 | 100-250                    | 0.01-0.04 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.01-0.04 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.02-0.06 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 | 30-60                           | 0.02-0.06 | 30-60      | 0.02-0.06 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.01-0.04 | 100-250                    | 0.01-0.04 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.01-0.04 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.02-0.06 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 | 30-60                           | 0.02-0.06 | 30-60      | 0.02-0.06 |

# CUT-Line

## Paramètres de coupe indicatifs

Empfohlene Schnittwerte

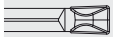
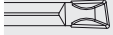
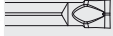
Standard machining data

★★★★★

★★★★

★★★

## CUT 31

|                                                                         |                                                                                                                            |       | <div>P</div> <div>Acier<br/>Stahl<br/>Steel</div>            |           |                                                                       |           |                                                                |           | <div>M</div> <div>Inox<br/>Rostfreistahl<br/>Stainless steel</div>                            |           |
|-------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------|--------------------------------------------------------------|-----------|-----------------------------------------------------------------------|-----------|----------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------|-----------|
|                                                                         |                                                                                                                            |       | Acier de décolletage<br>Automatenstahl<br>Free-cutting steel |           | Acier faiblement allié<br>Leicht legierter Stahl<br>Low alloyed steel |           | Acier fortement allié<br>Legierter Stahl<br>High alloyed steel |           | Austénitique et martensitique<br>Austenitisch und martensitisch<br>Austenitic and martensitic |           |
|                                                                         |                                                                                                                            |       | VC (m/min)                                                   | F (mm/U)  | VC (m/min)                                                            | F (mm/U)  | VC (m/min)                                                     | F (mm/U)  | VC (m/min)                                                                                    | F (mm/U)  |
| <div>Avance standard<br/>Standard Vorschub<br/>Standard feed rate</div> | <div>CUT31-UN-002</div>                   | TiAlN | 90-140                                                       | 0.04-0.08 | 60-120                                                                | 0.04-0.08 | 50-100                                                         | 0.04-0.08 | 50-120                                                                                        | 0.04-0.10 |
|                                                                         |                                                                                                                            | Tmax  | 100-170                                                      | 0.04-0.08 | 70-150                                                                | 0.04-0.08 | 60-120                                                         | 0.04-0.08 | 60-150                                                                                        | 0.04-0.10 |
|                                                                         |                                                                                                                            | Zmax  | 80-130*                                                      | 0.04-0.10 | 50-110*                                                               | 0.04-0.10 | 50-90*                                                         | 0.04-0.08 | 50-120*                                                                                       | 0.04-0.10 |
|                                                                         |                                                                                                                            | HTA   | 70-120                                                       | 0.04-0.06 | 60-100                                                                | 0.04-0.06 | 50-90                                                          | 0.04-0.06 | 50-100                                                                                        | 0.04-0.06 |
|                                                                         |                                                                                                                            | HAC   |                                                              |           |                                                                       |           |                                                                |           |                                                                                               |           |
|                                                                         | <div>CUT31-PN-002</div>                   | TiAlN | 90-140                                                       | 0.04-0.10 | 60-120                                                                | 0.04-0.08 | 50-100                                                         | 0.04-0.08 |                                                                                               |           |
|                                                                         |                                                                                                                            | Tmax  | 100-170                                                      | 0.04-0.10 | 70-150                                                                | 0.04-0.10 | 60-120                                                         | 0.04-0.10 |                                                                                               |           |
|                                                                         | <div>CUT31-PNW-002</div>                  | N     |                                                              |           |                                                                       |           |                                                                |           |                                                                                               |           |
|                                                                         | <div>CUT31-PR-802</div>                   | TiAlN | 90-140                                                       | 0.04-0.08 | 60-120                                                                | 0.04-0.08 | 50-100                                                         | 0.04-0.08 | 50-120                                                                                        | 0.04-0.08 |
|                                                                         |                                                                                                                            | Tmax  | 100-170                                                      | 0.04-0.08 | 70-150                                                                | 0.04-0.08 | 60-120                                                         | 0.04-0.08 | 60-150                                                                                        | 0.04-0.08 |
|                                                                         | <div>CUT31-PRW-802</div>                  | N     |                                                              |           |                                                                       |           |                                                                |           |                                                                                               |           |
|                                                                         | <div>CUT31-TN-002</div>                   | TiAlN | 90-140                                                       | 0.08-0.20 | 60-120                                                                | 0.08-0.20 | 50-100                                                         | 0.08-0.15 | 50-120                                                                                        | 0.08-0.20 |
|                                                                         |                                                                                                                            | Tmax  | 100-170                                                      | 0.08-0.20 | 70-150                                                                | 0.08-0.20 | 60-120                                                         | 0.08-0.15 | 60-150                                                                                        | 0.08-0.20 |
|                                                                         |                                                                                                                            | Zmax  | 80-130*                                                      | 0.08-0.20 | 50-110*                                                               | 0.08-0.20 | 50-90*                                                         | 0.08-0.15 |                                                                                               |           |
|                                                                         | <div>CUT31-GN-002</div> <div>***</div>  | TiAlN | 90-140                                                       | 0.04-0.15 | 60-120                                                                | 0.04-0.15 | 50-100                                                         | 0.04-0.10 | 50-120                                                                                        | 0.04-0.10 |
|                                                                         |                                                                                                                            | Tmax  | 100-170                                                      | 0.04-0.15 | 70-150                                                                | 0.04-0.15 | 60-120                                                         | 0.04-0.10 | 70-120                                                                                        | 0.04-0.10 |
|                                                                         |                                                                                                                            | AC    |                                                              |           |                                                                       |           |                                                                |           |                                                                                               |           |
| <div>Avance modérée<br/>Niedriger Vorschub<br/>Low feed rate</div>      | <div>CUT31-UN-000F</div>                | TiAlN | 80-130                                                       | 0.02-0.05 | 50-110                                                                | 0.02-0.05 | 50-90                                                          | 0.02-0.05 | 50-80                                                                                         | 0.02-0.05 |
|                                                                         |                                                                                                                            | HTA   | 60-100                                                       | 0.01-0.04 | 50-90                                                                 | 0.01-0.04 | 50-80                                                          | 0.02-0.05 | 50-80                                                                                         | 0.02-0.05 |
|                                                                         |                                                                                                                            | HAC   |                                                              |           |                                                                       |           |                                                                |           |                                                                                               |           |
|                                                                         | <div>CUT31-UL/R-800F</div>              | TiAlN | 80-130                                                       | 0.02-0.05 | 50-110                                                                | 0.02-0.05 | 50-90                                                          | 0.02-0.05 | 50-80                                                                                         | 0.02-0.05 |
|                                                                         |                                                                                                                            | HTA   | 60-100                                                       | 0.01-0.04 | 50-90                                                                 | 0.01-0.04 | 50-80                                                          | 0.02-0.05 | 50-80                                                                                         | 0.02-0.05 |
|                                                                         |                                                                                                                            | HAC   |                                                              |           |                                                                       |           |                                                                |           |                                                                                               |           |
|                                                                         | <div>CUT31-UL/R-802F</div>              | TiAlN | 80-130                                                       | 0.02-0.05 | 50-110                                                                | 0.02-0.05 | 50-90                                                          | 0.02-0.05 | 50-80                                                                                         | 0.02-0.05 |
|                                                                         |                                                                                                                            | HTA   | 60-100                                                       | 0.01-0.04 | 50-90                                                                 | 0.01-0.04 | 50-80                                                          | 0.02-0.05 | 50-80                                                                                         | 0.02-0.05 |
|                                                                         |                                                                                                                            | HAC   |                                                              |           |                                                                       |           |                                                                |           |                                                                                               |           |
|                                                                         | <div>CUT31-UL/R-1500F</div>             | TiAlN | 80-130                                                       | 0.02-0.05 | 50-110                                                                | 0.02-0.05 | 50-90                                                          | 0.02-0.05 | 50-80                                                                                         | 0.02-0.05 |
|                                                                         |                                                                                                                            | HTA   | 60-100                                                       | 0.01-0.04 | 50-90                                                                 | 0.01-0.04 | 50-80                                                          | 0.02-0.05 | 50-80                                                                                         | 0.02-0.05 |
|                                                                         |                                                                                                                            | HAC   |                                                              |           |                                                                       |           |                                                                |           |                                                                                               |           |

\* premier choix en cas de coupe interrompue

\*\* arête de coupe vive

\*\*\* Pour opérations de fonçage-tournage (évent. tronçonnage)

\* erste Wahl für unterbrochener Schnitt

\*\* scharfe Schneidkante

\*\*\* Für Stech- und Drehoperationen (event. abstechen)

\* first choice

for interrupted cut

\*\* sharp cutting edge

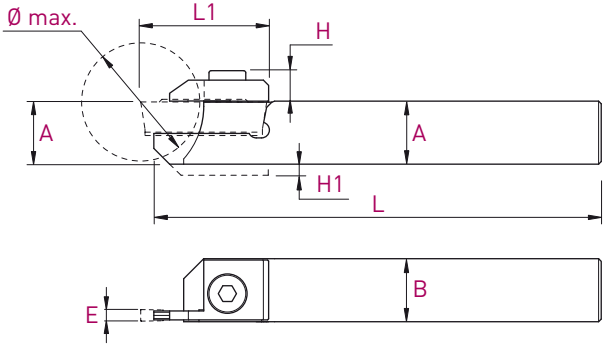
\*\*\* For grooving and turning operations (event. parting off)

## Paramètres de coupe indicatifs

Empfohlene Schnittwerte

Standard machining data

| [N] Alliages d'aluminium et non ferreux<br>Aluminium- und Nichteisenlegierungen<br>Aluminium and non-ferrous alloys |           |                                                                                |           |                            |           |                                                       |           | [S] Titane<br>Titan<br>Titanium |           |            |           |
|---------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------|-----------|----------------------------|-----------|-------------------------------------------------------|-----------|---------------------------------|-----------|------------|-----------|
| Aluminium                                                                                                           |           | Alu silicium max. 5%<br>Aluminiumsilicium max. 5%<br>Aluminium silicon max. 5% |           | Cuivre<br>Kupfer<br>Copper |           | Laiton & bronze<br>Messing & Bronze<br>Brass & bronze |           | Gr. 1 - 3                       |           | Gr. 4 - 5  |           |
| VC (m/min)                                                                                                          | F (mm/U)  | VC (m/min)                                                                     | F (mm/U)  | VC (m/min)                 | F (mm/U)  | VC (m/min)                                            | F (mm/U)  | VC (m/min)                      | F (mm/U)  | VC (m/min) | F (mm/U)  |
| 100-250                                                                                                             | 0.03-0.10 | 100-250                                                                        | 0.03-0.10 | 100-300                    | 0.03-0.10 | 100-300                                               | 0.03-0.10 |                                 |           | 30-60      | 0.04-0.08 |
|                                                                                                                     |           |                                                                                |           |                            |           |                                                       |           |                                 |           |            |           |
| 100-300                                                                                                             | 0.04-0.10 | 100-250                                                                        | 0.04-0.10 | 100-300                    | 0.03-0.08 | 150-300                                               | 0.03-0.08 |                                 |           | 30-60      | 0.04-0.08 |
| 150-300                                                                                                             | 0.04-0.15 | 100-300                                                                        | 0.04-0.10 | 100-300                    | 0.04-0.10 | 150-300                                               | 0.02-0.08 | 30-60                           | 0.04-0.08 | 30-60      | 0.04-0.08 |
|                                                                                                                     |           |                                                                                |           |                            |           | 150-300                                               | 0.03-0.10 |                                 |           |            |           |
|                                                                                                                     |           |                                                                                |           |                            |           |                                                       |           |                                 |           |            |           |
|                                                                                                                     |           |                                                                                |           |                            |           | 100-500                                               | 0.02-0.15 |                                 |           |            |           |
|                                                                                                                     |           |                                                                                |           |                            |           | 150-300                                               | 0.03-0.10 |                                 |           |            |           |
|                                                                                                                     |           |                                                                                |           |                            |           |                                                       |           |                                 |           |            |           |
|                                                                                                                     |           |                                                                                |           |                            |           | 100-500                                               | 0.02-0.15 |                                 |           |            |           |
|                                                                                                                     |           |                                                                                |           |                            |           | 150-300                                               | 0.05-0.20 |                                 |           |            |           |
|                                                                                                                     |           |                                                                                |           |                            |           |                                                       |           |                                 |           |            |           |
| 100-300                                                                                                             | 0.04-0.15 | 100-200                                                                        | 0.04-0.10 | 100-200                    | 0.04-0.10 | 100-300                                               | 0.04-0.15 |                                 |           | 30-60      | 0.04-0.08 |
|                                                                                                                     |           |                                                                                |           |                            |           | 100-300                                               | 0.04-0.15 |                                 |           |            |           |
| 100-300                                                                                                             | 0.04-0.15 | 100-200                                                                        | 0.04-0.10 | 100-200                    | 0.04-0.10 | 100-300                                               | 0.04-0.15 | 30-60                           | 0.04-0.08 | 30-60      | 0.04-0.08 |
|                                                                                                                     |           |                                                                                |           |                            |           |                                                       |           |                                 |           |            |           |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.01-0.04 | 100-250                    | 0.01-0.04 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.01-0.04 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.02-0.06 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 | 30-60                           | 0.02-0.06 | 30-60      | 0.02-0.06 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.01-0.04 | 100-250                    | 0.01-0.04 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.01-0.04 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.02-0.06 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 | 30-60                           | 0.02-0.06 | 30-60      | 0.02-0.06 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.01-0.04 | 100-250                    | 0.01-0.04 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.01-0.04 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.02-0.06 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 | 30-60                           | 0.02-0.06 | 30-60      | 0.02-0.06 |
|                                                                                                                     |           |                                                                                |           |                            |           |                                                       |           |                                 |           |            |           |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.01-0.04 | 100-250                    | 0.01-0.04 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.01-0.04 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 |                                 |           | 30-60      | 0.02-0.06 |
| 100-300                                                                                                             | 0.02-0.05 | 100-250                                                                        | 0.02-0.05 | 100-250                    | 0.02-0.05 | 100-300                                               | 0.02-0.05 | 30-60                           | 0.02-0.06 | 30-60      | 0.02-0.06 |



|                                            |             |     |           |      |     |    |  |  |
|--------------------------------------------|-------------|-----|-----------|------|-----|----|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Plaquettes<br>WSP<br>Inserts               | A x B       | L   | Ø<br>max. | L1   | H   | H1 | Art. N°                                                                           | Art. N°                                                                             |
| <b>E</b><br>1.6 mm<br><b>Type</b><br>CUT16 | 8 x 10      | 115 | 16        | 19.5 | 6.2 | 2  | CUT16-H0810L                                                                      | CUT16-H0810R                                                                        |
|                                            | 10 x 10     | 115 | 16        | 19.5 | 6.2 | -  | CUT16-H1010L                                                                      | CUT16-H1010R                                                                        |
|                                            | 12 x 12     | 130 | 16        | 19.5 | 6.2 | -  | CUT16-H1212L                                                                      | CUT16-H1212R                                                                        |
|                                            | 12 x 12     | 90  | 16        | 19.5 | 6.2 | -  | CUT16-H1212L-90                                                                   | CUT16-H1212R-90                                                                     |
|                                            | 12.7 x 12.7 | 130 | 16        | 19.5 | 6.2 | -  | CUT16-H127127L                                                                    | CUT16-H127127R                                                                      |
|                                            | 16 x 16     | 130 | 16        | 19.5 | 6.2 | -  | CUT16-H1616L                                                                      | CUT16-H1616R                                                                        |
| <b>E</b><br>2.2 mm<br><b>Type</b><br>CUT22 | 10 x 12     | 115 | 20        | 24   | 6.4 | -  | CUT22-H1012L                                                                      | CUT22-H1012R                                                                        |
|                                            | 12 x 12     | 130 | 20        | 24   | 6.4 | -  | CUT22-H1212L                                                                      | CUT22-H1212R                                                                        |
|                                            | 12 x 12     | 90  | 20        | 24   | 6.4 | -  | CUT22-H1212L-90                                                                   | CUT22-H1212R-90                                                                     |
|                                            | 12.7 x 12.7 | 130 | 20        | 24   | 6.4 | -  | CUT22-H127127L                                                                    | CUT22-H127127R                                                                      |
|                                            | 16 x 16     | 130 | 20        | 24   | 6.4 | -  | CUT22-H1616L                                                                      | CUT22-H1616R                                                                        |
|                                            | 20 x 20     | 120 | 20        | 24   | 6.4 | -  | CUT22-H2020L                                                                      | CUT22-H2020R                                                                        |
| <b>E</b><br>3.1 mm<br><b>Type</b><br>CUT31 | 16 x 16     | 130 | 34        | 35   | 7.8 | -  | CUT31-H1616L                                                                      | CUT31-H1616R                                                                        |
|                                            | 20 x 20     | 120 | 34        | 35   | 7.8 | -  | CUT31-H2020L                                                                      | CUT31-H2020R                                                                        |
|                                            | 25 x 25     | 140 | 34        | 35   | 7.8 | -  | CUT31-H2525L                                                                      | CUT31-H2525R                                                                        |

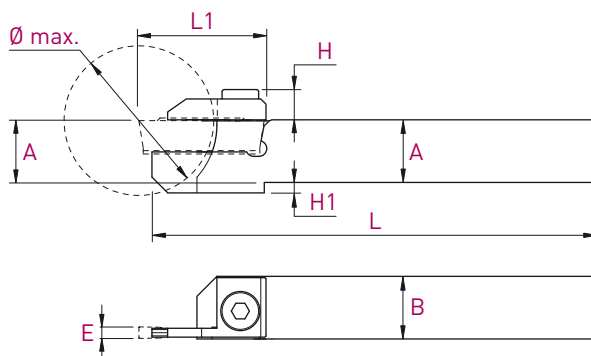
| Pièces de rechange<br>Ersatzteile<br>Spare parts |  |  |  | Serrage<br>Anzug<br>Torque |
|--------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------|
|                                                  | Art. N°                                                                             | Art. N°                                                                             | Art. N°                                                                             |                            |
| CUT 16                                           | CUT16L-SET                                                                          | CUT16R-SET                                                                          | V-M4X10-BN7                                                                         | 3.5 Nm                     |
| CUT 22                                           | CUT22L-SET                                                                          | CUT22R-SET                                                                          | V-M4X10-BN7                                                                         | 3.5 Nm                     |
| CUT 31                                           | CUT31L-SET                                                                          | CUT31R-SET                                                                          | V-M5X10-BN7                                                                         | 4.5 Nm                     |

## Porte-outils

Halter  
Holders

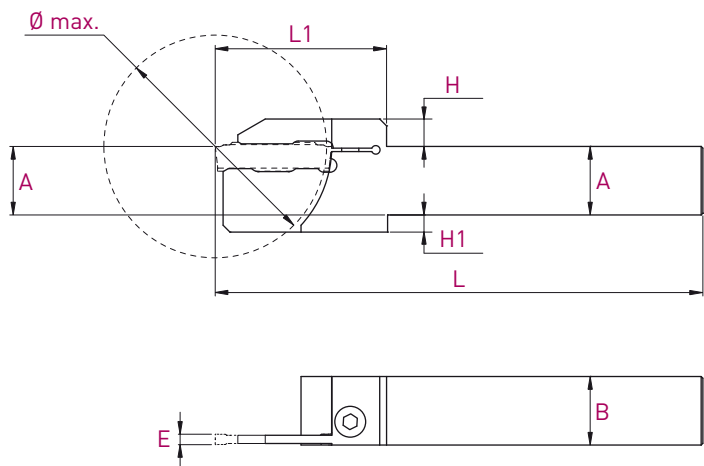
Ø max 42 mm

HX



| Plaquettes<br>WSP<br>Inserts                   | A x B       | L   | Ø<br>max. | L1 | H   | H1 | Art. N°          | Art. N°          |
|------------------------------------------------|-------------|-----|-----------|----|-----|----|------------------|------------------|
|                                                |             |     |           |    |     |    |                  |                  |
| <b>E</b><br>1.6 mm<br><br><b>Type</b><br>CUT16 | 10 x 12     | 115 | 20        | 21 | 6.2 | 2  | CUT16-H1012LX    | CUT16-H1012RX    |
|                                                | 12 x 12     | 130 | 20        | 21 | 6.2 | -  | CUT16-H1212LX    | CUT16-H1212RX    |
|                                                | 12 x 12     | 90  | 20        | 21 | 6.2 | -  | CUT16-H1212LX-90 | CUT16-H1212RX-90 |
|                                                | 12.7 x 12.7 | 130 | 20        | 21 | 6.2 | -  | CUT16-H127127LX  | CUT16-H127127RX  |
|                                                | 16 x 16     | 130 | 20        | 21 | 6.2 | -  | CUT16-H1616LX    | CUT16-H1616RX    |
|                                                | 20 x 20     | 120 | 20        | 21 | 6.2 | -  | CUT16-H2020LX    | CUT16-H2020RX    |
| <b>E</b><br>2.2 mm<br><br><b>Type</b><br>CUT22 | 10 x 12     | 115 | 26        | 25 | 6.4 | 4  | CUT22-H1012LX    | CUT22-H1012RX    |
|                                                | 12 x 12     | 130 | 26        | 25 | 6.4 | 2  | CUT22-H1212LX    | CUT22-H1212RX    |
|                                                | 12 x 12     | 90  | 26        | 25 | 6.4 | 2  | CUT22-H1212LX-90 | CUT22-H1212RX-90 |
|                                                | 12.7 x 12.7 | 130 | 26        | 25 | 6.4 | -  | CUT22-H127127LX  | CUT22-H127127RX  |
|                                                | 16 x 16     | 130 | 26        | 25 | 6.4 | -  | CUT22-H1616LX    | CUT22-H1616RX    |
|                                                | 20 x 20     | 120 | 26        | 25 | 6.4 | -  | CUT22-H2020LX    | CUT22-H2020RX    |
|                                                | 25 x 25     | 140 | 26        | 25 | 6.4 | -  | CUT22-H2525LX    | CUT22-H2525RX    |
| <b>E</b><br>3.1 mm<br><br><b>Type</b><br>CUT31 | 16 x 16     | 120 | 42        | 37 | 7.8 | 4  | CUT31-H1616LX    | CUT31-H1616RX    |
|                                                | 20 x 20     | 120 | 42        | 37 | 7.8 | -  | CUT31-H2020LX    | CUT31-H2020RX    |
|                                                | 25 x 25     | 140 | 42        | 37 | 7.8 | -  | CUT31-H2525LX    | CUT31-H2525RX    |

| Pièces de rechange<br>Ersatzteile<br>Spare parts | <b>L</b>    | <b>R</b>    |             | Serrage<br>Anzug<br>Torque |
|--------------------------------------------------|-------------|-------------|-------------|----------------------------|
|                                                  | Art. N°     | Art. N°     | Art. N°     |                            |
| CUT 16                                           | CUT16LX-SET | CUT16RX-SET | V-M4X10-BN7 | 3.5 Nm                     |
| CUT 22                                           | CUT22LX-SET | CUT22RX-SET | V-M4X10-BN7 | 3.5 Nm                     |
| CUT 31                                           | CUT31LX-SET | CUT31RX-SET | V-M5X10-BN7 | 4.5 Nm                     |



L

R

| Plaquettes<br>WSP<br>Inserts               | A x B   | L   | Ø<br>max. | L1 | H | H1 | Art. N°           | Art. N°           |
|--------------------------------------------|---------|-----|-----------|----|---|----|-------------------|-------------------|
| <b>E</b><br>2.2 mm<br><b>Type</b><br>CUT22 | 16 x 16 | 130 | 32        | 30 | 7 | -  | CUT22-H1616LZ-D32 | CUT22-H1616RZ-D32 |
|                                            | 20 x 20 | 130 | 32        | 30 | 7 | -  | CUT22-H2020LZ-D32 | CUT22-H2020RZ-D32 |
|                                            | 16 x 16 | 130 | 42        | 35 | 7 | 4  | CUT22-H1616LZ-D42 | CUT22-H1616RZ-D42 |
|                                            | 20 x 20 | 130 | 42        | 35 | 7 | -  | CUT22-H2020LZ-D42 | CUT22-H2020RZ-D42 |
| <b>E</b><br>3.1 mm<br><b>Type</b><br>CUT31 | 20 x 20 | 140 | 52        | 44 | 8 | 5  | CUT31-H2020LZ-D52 | CUT31-H2020RZ-D52 |
|                                            | 25 x 25 | 140 | 52        | 44 | 8 | -  | CUT31-H2525LZ-D52 | CUT31-H2525RZ-D52 |
|                                            | 20 x 20 | 140 | 65        | 50 | 8 | 5  | CUT31-H2020LZ-D65 | CUT31-H2020RZ-D65 |
|                                            | 25 x 25 | 140 | 65        | 50 | 8 | -  | CUT31-H2525LZ-D65 | CUT31-H2525RZ-D65 |

Pièces de rechange  
Ersatzteile  
Spare parts



Serrage  
Anzug  
Torque

Art. N°

CUT 22

V-M4X10-BN7

3.5 Nm

CUT 31

V-M5X10-BN7

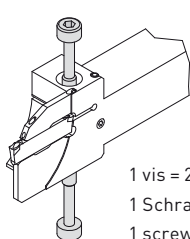
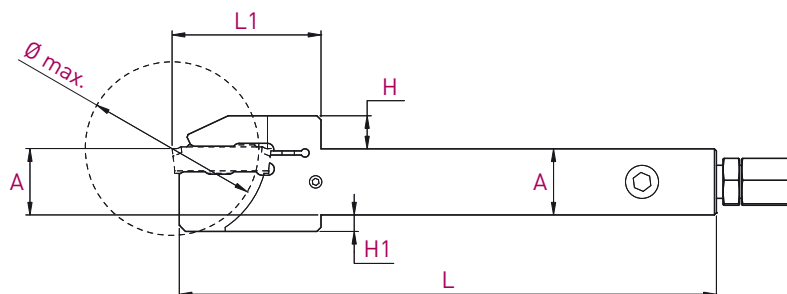
4.5 Nm

**Porte-outils avec arrosage intégré**

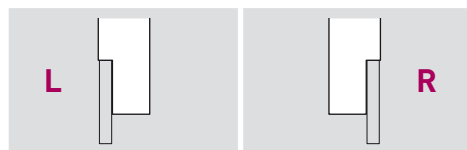
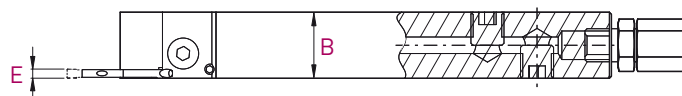
Halter mit integrierter Kühlmittelzufuhr  
 Holders with integrated coolant supply

Ø max 65 mm

HZ-JET

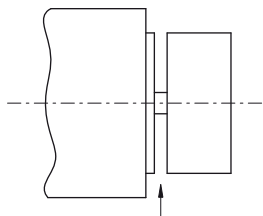
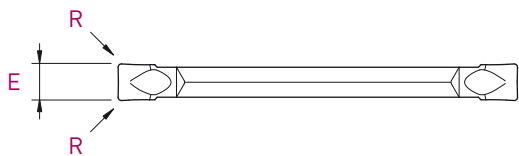
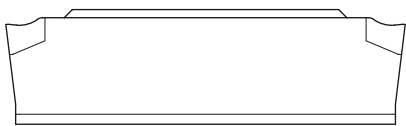


1 vis = 2 possibilités de serrage  
 1 Schraube = 2 Spannmöglichkeiten  
 1 screw = 2 clamp possibilities



| Plaquettes<br>WSP<br>Inserts | A x B   | L   | Ø<br>max. | L1 | H | H1 | Art. N°             | Art. N°             |
|------------------------------|---------|-----|-----------|----|---|----|---------------------|---------------------|
| <b>E</b><br>2.2 mm           | 16 x 16 | 130 | 42        | 36 | 8 | 4  | CUT22-H1616LZ-JET42 | CUT22-H1616RZ-JET42 |
| <b>Type</b><br>CUT22         | 20 x 20 | 130 | 42        | 36 | 8 | -  | CUT22-H2020LZ-JET42 | CUT22-H2020RZ-JET42 |
| <b>E</b><br>3.1 mm           | 16 x 16 | 140 | 65        | 49 | 9 | 9  | CUT31-H1616LZ-JET65 | CUT31-H1616RZ-JET65 |
| <b>Type</b><br>CUT31         | 20 x 20 | 140 | 65        | 51 | 9 | 5  | CUT31-H2020LZ-JET65 | CUT31-H2020RZ-JET65 |
|                              | 25 x 25 | 140 | 65        | 51 | 9 | -  | CUT31-H2525LZ-JET65 | CUT31-H2525RZ-JET65 |

| Pièces de rechange<br>Ersatzteile<br>Spare parts | Art. N°     | Serrage<br>Anzug<br>Torque | Art. N°   | Art. N° |
|--------------------------------------------------|-------------|----------------------------|-----------|---------|
| CUT 22                                           | V-M4X22-CUT | 3.5 Nm                     | J-M8X1-D6 | JB-M8X1 |
| CUT 31                                           | V-M5X25-CUT | 4.5 Nm                     | J-M8X1-D6 | JB-M8X1 |



UN



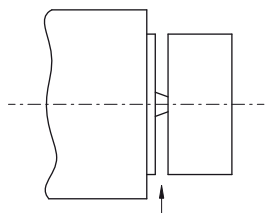
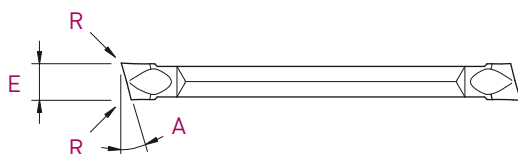
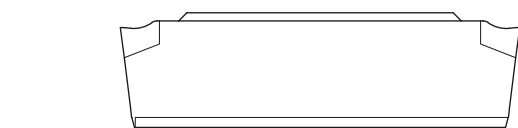
| Type  | E $\pm 0.1$ | R    | Art. N°       | P     | P    | P    | P   |     |
|-------|-------------|------|---------------|-------|------|------|-----|-----|
|       |             |      |               | M     | M    | M    | M   |     |
|       |             |      |               | N     |      |      | N   | N   |
|       |             |      |               | S     |      |      | S   | S   |
|       |             |      |               | TiAlN | Tmax | Zmax | HTA | HAC |
| CUT16 | 1.6         | 0.02 | CUT16-UN-000F | •     |      |      | •   | •   |
|       | 1.6         | 0.10 | CUT16-UN-001  | •     | •    | •    | •   | •   |
| CUT22 | 2.2         | 0.02 | CUT22-UN-000F | •     |      |      | •   | •   |
|       | 2.2         | 0.20 | CUT22-UN-002  | •     | •    | •    | •   | •   |
| CUT31 | 3.1         | 0.02 | CUT31-UN-000F | •     |      |      | •   | •   |
|       | 3.1         | 0.20 | CUT31-UN-002  | •     | •    | •    | •   | •   |

## Plaquettes de tronçonnage

Abstechwendeplatten

Cut off inserts

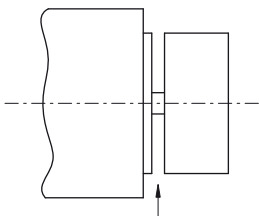
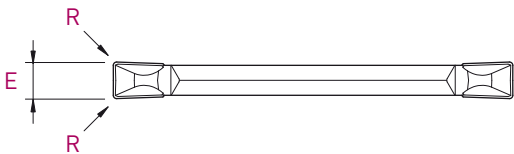
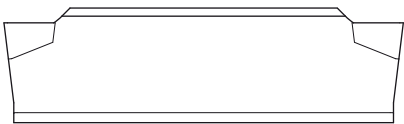
UL-UR



UL

UR

| Type  | E $\pm 0.1$ | A   | R    | Art. N°        | P     | P   |     | Art. N°        | P     | P    | P    | P   |     |
|-------|-------------|-----|------|----------------|-------|-----|-----|----------------|-------|------|------|-----|-----|
|       |             |     |      |                | M     | M   |     |                | M     | M    | M    | M   |     |
|       |             |     |      |                | N     | N   | N   |                | N     | N    | N    | N   | N   |
|       |             |     |      |                | S     | S   | S   |                | S     |      |      | S   | S   |
|       |             |     |      |                | TiAlN | HTA | HAC |                | TiAlN | Tmax | Zmax | HTA | HAC |
|       |             |     |      |                |       |     |     |                |       |      |      |     |     |
| CUT16 | 1.6         | 8°  | 0.02 | CUT16-UL-800F  | •     | •   | •   | CUT16-UR-800F  | •     |      |      | •   | •   |
|       | 1.6         | 15° | 0.02 | CUT16-UL-1500F | •     | •   | •   | CUT16-UR-1500F | •     |      |      | •   | •   |
| CUT22 | 2.2         | 8°  | 0.02 | CUT22-UL-800F  | •     | •   | •   | CUT22-UR-800F  | •     |      |      | •   | •   |
|       | 2.2         | 8°  | 0.20 | -              |       |     |     | CUT22-UR-802   |       | •    | •    |     |     |
|       | 2.2         | 8°  | 0.20 | CUT22-UL-802F  | •     | •   | •   | CUT22-UR-802F  | •     |      |      | •   | •   |
|       | 2.2         | 15° | 0.02 | CUT22-UL-1500F | •     | •   | •   | CUT22-UR-1500F | •     |      |      | •   | •   |
| CUT31 | 3.1         | 8°  | 0.02 | CUT31-UL-800F  | •     | •   | •   | CUT31-UR-800F  | •     |      |      | •   | •   |
|       | 3.1         | 8°  | 0.20 | CUT31-UL-802F  | •     | •   | •   | CUT31-UR-802F  | •     |      |      | •   | •   |
|       | 3.1         | 15° | 0.02 | CUT31-UL-1500F | •     | •   | •   | CUT31-UR-1500F | •     |      |      | •   | •   |



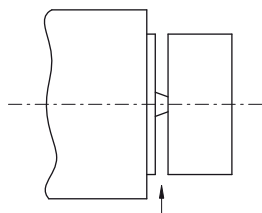
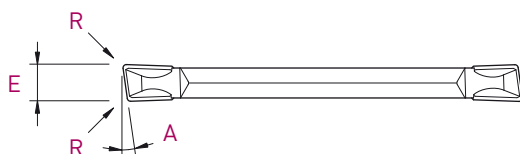
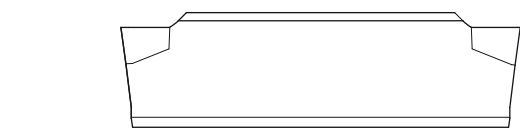
| Type  | E $\pm 0.1$ | R    | Art. N°      | <div><div>P</div><div>M</div><div>N</div><div>S</div></div> TiAlN | <div><div>P</div><div>M</div><div></div><div></div></div> Tmax |
|-------|-------------|------|--------------|-------------------------------------------------------------------|----------------------------------------------------------------|
| CUT22 | 2.2         | 0.20 | CUT22-PN-002 | ●                                                                 | ●                                                              |
| CUT31 | 3.1         | 0.20 | CUT31-PN-002 | ●                                                                 | ●                                                              |

## Plaquettes de tronçonnage

Abstechwendeplatten

Cut off inserts

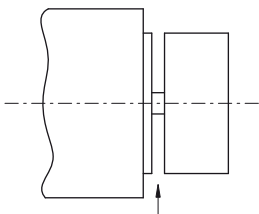
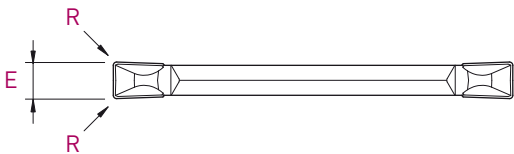
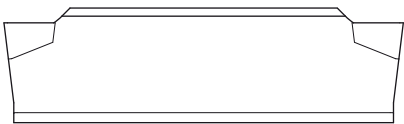
PR



PR



| Type  | E <sub>±0.1</sub> | A  | R    | Art. N°      | <div><div>P</div></div> | <div><div>P</div></div> |
|-------|-------------------|----|------|--------------|-------------------------|-------------------------|
|       |                   |    |      |              | <div><div>M</div></div> | <div><div>M</div></div> |
|       |                   |    |      |              | <div><div>N</div></div> | <div><div></div></div>  |
|       |                   |    |      |              | <div><div>S</div></div> | <div><div></div></div>  |
|       |                   |    |      |              | TiAlN                   | Tmax                    |
| CUT16 | 1.6               | 8° | 0.10 | CUT16-PR-801 | ●                       | ●                       |
| CUT22 | 2.2               | 8° | 0.20 | CUT22-PR-802 | ●                       | ●                       |
| CUT31 | 3.1               | 8° | 0.20 | CUT31-PR-802 | ●                       | ●                       |



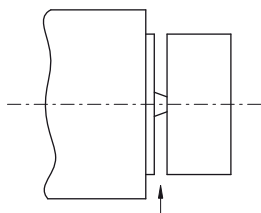
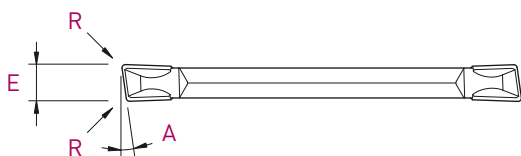
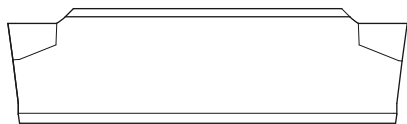
| Type  | E $\pm 0.1$ | R    | Art. N°       | <div><input type="checkbox"/><br/><input checked="" type="checkbox"/> N<br/><input checked="" type="checkbox"/> S<br/>z</div> |
|-------|-------------|------|---------------|-------------------------------------------------------------------------------------------------------------------------------|
| CUT22 | 2.2         | 0.20 | CUT22-PNW-002 | •                                                                                                                             |
| CUT31 | 3.1         | 0.20 | CUT31-PNW-002 | •                                                                                                                             |

## Plaquettes de tronçonnage

Abstechwendeplatten

Cut off inserts

PRW



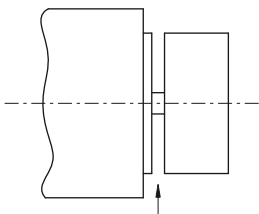
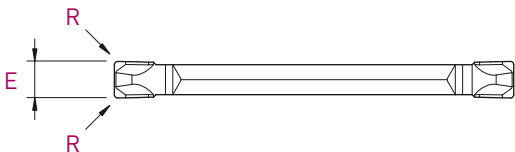
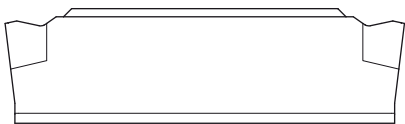
PRW



| Type  | E $\pm 0.1$ | A  | R    | Art. N°       | z |
|-------|-------------|----|------|---------------|---|
| CUT16 | 1.6         | 8° | 0.10 | CUT16-PRW-801 | ● |
| CUT22 | 2.2         | 8° | 0.20 | CUT22-PRW-802 | ● |
| CUT31 | 3.1         | 8° | 0.20 | CUT31-PRW-802 | ● |



z

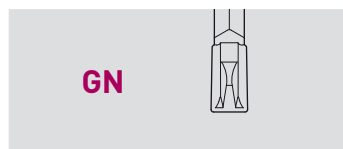
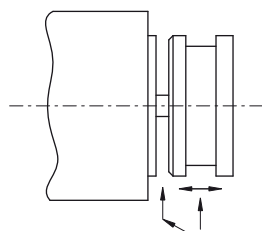
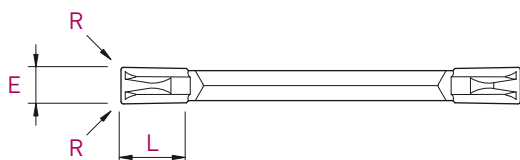
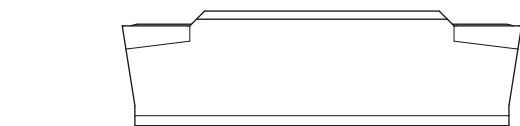


| Type  | E $\pm 0.1$ | R    | Art. N°      | T:AlN                                                       | Tmax                                | Zmax                                |
|-------|-------------|------|--------------|-------------------------------------------------------------|-------------------------------------|-------------------------------------|
| CUT22 | 2.2         | 0.20 | CUT22-TN-002 | <div><div>P</div><div>M</div><div>N</div><div>S</div></div> | <div><div>P</div><div>M</div></div> | <div><div>P</div><div>M</div></div> |
| CUT31 | 3.1         | 0.20 | CUT31-TN-002 | <div><div>P</div><div>M</div><div>N</div><div>S</div></div> | <div><div>P</div><div>M</div></div> | <div><div>P</div><div>M</div></div> |

**Plaquettes de fonçage, tournage et tronçonnage**

WSP zum einstecken, drehen und abstechen

Solid carbide inserts for grooving, turning and cut off

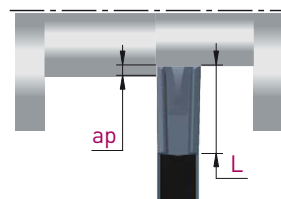
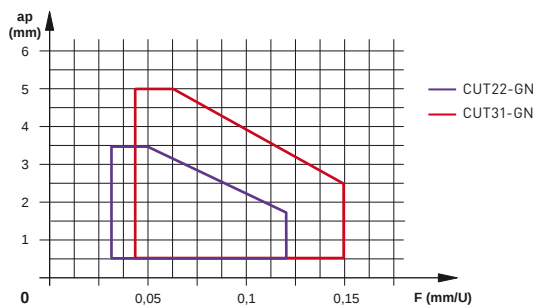


| Type  | E $\pm 0.1$ | L   | R    | Art. N°      | TiAlN | Tmax | AC |
|-------|-------------|-----|------|--------------|-------|------|----|
| CUT22 | 2.2         | 3.5 | 0.15 | CUT22-GN-002 | ●     | ●    | ●  |
| CUT31 | 3.1         | 5.0 | 0.15 | CUT31-GN-002 | ●     | ●    | ●  |

**Conseils d'utilisation pour plaquettes type GN**

Anwendungsempfehlungen für GN-Wendelplatten

Application recommendations for GN inserts



$a_p \max = L$  dans matière à bonne usinabilité  
 $a_p \max = L$  in Werkstoffe mit gute Zerspanbarkeit  
 $a_p \max = L$  in material with good machinability

# SYMBOL

## Légende des symboles

Symbollegende

Symbol Legend

| E   | L | Art. N°   | TiAlN | TiN | N (µK20) | HTA | HTiN | HN (µK10) |
|-----|---|-----------|-------|-----|----------|-----|------|-----------|
| 1.0 | 5 | 731RU-1.0 | •     | •   |          |     |      |           |
| 1.2 | 5 | 731RU-1.2 | •     | •   |          |     |      |           |
| 1.5 | 7 | 731RU-1.5 | •     | •   | •        | •   | •    | •         |
| 2.0 | 7 | 731RU-2.0 | •     | •   |          |     |      |           |

• Article standard  
Standardartikel  
Standard item

**P**

Acier  
Stahl  
Steel

**M**

Inox  
Rostfreistahl  
Stainless steel

**N**

Alliages d'aluminium et non ferreux  
Aluminium- und Nichtisenlegierungen  
Aluminium and non-ferrous alloys

**S**

Titane et superalliages  
Titan und Superlegierungen  
Titanium and superalloys

**H**

Acier trempé  
Gehärteter Stahl  
Hardened steel

**K**

Fonte  
Gusseisen  
Cast iron

**O**

Matière exotique  
Exotisches material  
Exotic material



Carbure  
Hartmetall  
Carbide



TiAlN

● K20

µK20 + revêtement PVD  
µK20 + PVD Beschichtung  
µK20 + PVD coating

**P** ★★★★★  
**M** ★★★★★  
**N** ★★★★★  
**S** ★★★★★

TF F M E

Épaisseur du revêtement  
Dicken der Beschichtung  
Thickness of the coating

**TF**

Très fin  
Sehr dünn  
Very thin

**F**

Fin  
Dünn  
Thin

**M**

Moyen  
Mittel  
Medium

**E**

Épais  
Dick  
Thick