

TURNING-**TOOLS**

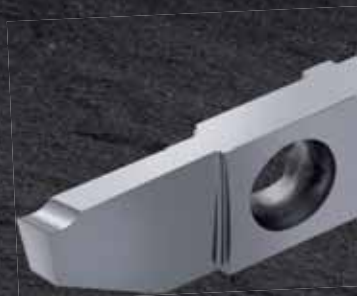
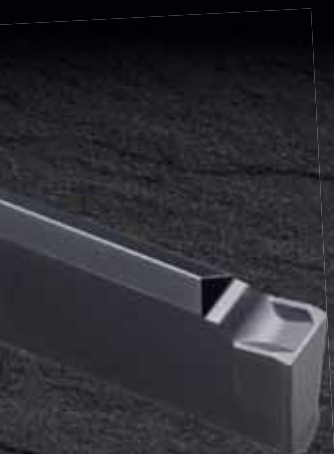


*Alfa***tool**

SWISS



MADE





ALFA-**ISO**



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ALFA-ISO



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Halter und WSP 80°
Holders and inserts 80°



SCA



SCL



SCM

80°

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Holders and inserts 55°



SDA



SDJ



SDN



SDH

55°

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SVA



SVJ



SVV



SVX



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35°

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Nuances Sorten Grades

TiALN

revêtement PVD
PVD Beschichtung
PVD coating

- nuance universelle
- bonne résistance à la température
- 1^{er} choix pour l'usinage finition des aciers, aciers inoxydables et alliages de titane

- Universal-Sorte
- sehr gute Warmfestigkeit
- für die Bearbeitung von Stahl, rostfreiem Stahl und Titanlegierungen bestens geeignet

- universal grade
- good heat resistance
- first choice for steel, stainless steel and titanium alloys machining

TiN

revêtement PVD
PVD Beschichtung
PVD coating

- nuance universelle pour travaux légers
- très faible coefficient de frottement
- 1^{er} choix pour l'usinage des matières peu résistantes qui créent des arêtes rapportées
- à éviter pour l'usinage du titane

- Universal-Sorte für leichte Bearbeitung
- sehr geringer Reibwert
- für die Bearbeitung von weichen Werkstoffen mit Tendenz zur Bildung von Aufbauschneiden bestens geeignet
- für die Bearbeitung von Titan nicht geeignet

- universal grade for light machining
- very low friction ratio
- first choice for low resistance materials which causes edge build-up
- not suitable for titanium machining

K20

non revêtu
unbeschichtet
uncoated

- nuance micro-grain tenace
- 1^{er} choix comme base pour un revêtement
- supporte les coupes interrompues

- zähe Feinkornsorte
- beste Basis für eine Beschichtung
- für unterbrochene Schnitte geeignet

- tough micro-grain grade
- first choice as base for coating
- suitable for interrupted cut

HTA

revêtement PVD
PVD Beschichtung
PVD coating

- nuance très résistante à l'usure
- très bonne résistance à la température
- déconseillé en cas de coupe interrompue et autres conditions d'usinage défavorables

- sehr verschleißfeste Sorte
- sehr gute Warmfestigkeit
- für unterbrochene Schnitte und andere ungünstige Bearbeitungsbedingungen nicht geeignet

- very wear resistant grade
- very good heat resistance
- not suitable for interrupted cut and other unfavourable machining conditions

HTiN

revêtement PVD
PVD Beschichtung
PVD coating

- nuance pour l'usinage den finition des matières peu résistantes qui créent des arêtes rapportées
- à éviter pour l'usinage du titane
- µK10 + revêtement PVD

- Sorte für die Feinbearbeitung von weichen Werkstoffen mit Tendenz zur Bildung von Aufbauschneiden
- für die Bearbeitung von Titan nicht geeignet
- µK10 + PVD Beschichtung

- grade for light machining of low resistance materials which causes edge build-up
- not suitable for titanium machining
- µK10 + PVD coating

K10

non revêtu
unbeschichtet
uncoated

- nuance micro-grain très résistante à l'usure
- recommandé pour l'usinage du titane
- déconseillé en cas de coupe interrompue

- verschleißfeste Feinkorn-Sorte
- empfehlenswert für Titanbearbeitung
- für unterbrochene Schnitte nicht geeignet

- wear resistant micro-grain grade
- suitable for titanium machining
- not suitable for interrupted cut

Nuances Sorten Grades

Tmax

revêtement PVD
PVD Beschichtung
PVD coating

- nuance pour l'usinage ébauche et semi-finition des aciers inoxydables
- très faible coefficient de frottement
- résiste aux températures d'usinage élevées

- Sorte für die Bearbeitung von mittlere bis hohe Belastung in rostfreier Stahl
- sehr geringer Reibwert
- hohe Bearbeitungswarmfestigkeit

- grade for medium to heavy machining of stainless steel
- very low friction ratio
- high machining heat resistance

TAC

revêtement PVD
PVD Beschichtung
PVD coating

- nuance résistante à l'usure pour finition et semi-finition
- 1^{er} choix pour les aciers inoxydables et superalliages
- supporte les coupes interrompues

- verschleissfeste Sorte für mittlere bis Schlichtbearbeitung
- für Rostfreier Stahl und Superlegierung bestens geeignet
- für unterbrochene Schnitte geeignet

- wear resistant for finishing and semi-finishing
- first choice for stainless steel and superalloy
- suitable for interrupted cut

HTAC

revêtement PVD
PVD Beschichtung
PVD coating

- nuance très résistante à l'usure pour finition et semi-finition
- 1^{er} choix pour les aciers inoxydables et superalliages
- déconseillé en cas de coupe interrompue défavorable

- sehr verschleissfeste Sorte für mittlere bis Schlichtbearbeitung
- für Rostfreier Stahl und Superlegierung bestens geeignet
- für unterbrochene Schnitte nicht geeignet

- very wear resistant for finishing and semi-finishing
- first choice for stainless steel and superalloy
- not suitable for interrupted cut

Ti4

revêtement CVD
CVD Beschichtung
CVD coating

- nuance tenace très polyvalente pour usinage moyen à lourd des aciers et aciers alliés
- résiste aux températures d'usinage élevées

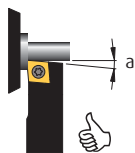
- zähe und vielseitige Sorte für mittlere bis hohe Belastung in Stahl und Stahllegierung
- hohe Bearbeitungswarmfestigkeit

- strong and very versatile grade for medium to heavy machining of steel and alloyed steel
- high machining heat resistance

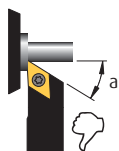
Paramètres de coupe indicatifs Empfohlene Schnittwerte Standard machining data

VC (m/min)	Nuances / Sorten / Grades						
Matière Werkstoff Material	PVD				CVD	non revêtu unbeschichtet uncoated	
	TiAlN HTA	TiN HTiN	Tmax	TAC HTAC	Ti4	K10	K20
Acier de décolletage Automatenstahl Free-cutting steel	120 - 200	120 - 180	120 - 220	120 - 200	120 - 250		
Acier Stahl Steel < 600 N/mm ²	80 - 170	80 - 150	80 - 200	80 - 180	100 - 220		
Acier Stahl Steel < 800 N/mm ²	60 - 150	60 - 120	60 - 180	60 - 150	100 - 200		
Acier Stahl Steel > 800 N/mm ²	50 - 120		60 - 150	50 - 120	80 - 180		
Acier inoxydable Rostfreistahl Stainless steel	60 - 140	80 - 120	80 - 160	60 - 150	100 - 200		
Aluminium Si < 12%		250 - 2000				250 - 2000	250 - 1500
Aluminium Si > 12%		250 - 1500		150 - 400		200 - 1500	200 - 1000
Titane Titan Titanium	30 - 80			30 - 70		30 - 70	30 - 60
Cuivre, laiton, bronze Kupfer, Messing, Bronze Copper, brass, bronze		100 - 500		100 - 300		100 - 500	100 - 300

Conseils d'utilisation Anwendungsempfehlungen Application recommendations



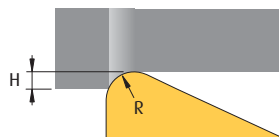
- pour un meilleur état de surface et une meilleure stabilité d'usinage, choisir une géométrie d'outil permettant un angle "a" le plus petit possible



- für bessere Oberflächegüte und Bearbeitungsstabilität, muss die Werkzeuggeometrie mit kleinstmöglichem Winkel "a" ausgewählt werden

- for a better surface finish and better machining stability, choose a tool geometry with angle "a" as small as possible

rapport hauteur de passe / rayon d'outil
Verhältnis zwischen Spantiefe und Werkzeugradius
machining depth / tool radius ratio



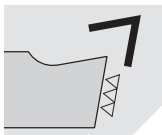
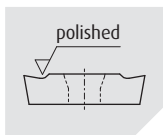
$$H_{\min} = 0.7 \times R$$

$$R_{\max} = 1.4 \times H$$

Géométries de coupe Spanformgeometrien Cutting geometries

FN-X8° / ENP-X8°

FN-X8°



Arête de coupe vive
Scharfe Schneidkante
Sharp edge

f [mm/U]
0.01 - 0.15
0.01 - 0.15
0.01 - 0.12
0.01 - 0.18

DESCRIPTIF

- plaquette polie et rectifiée
- arête de coupe vive
- coupe positive 8° avec maîtrise des copeaux
- nuances micro-grain avec revêtements PVD

BESCHREIBUNG

- polierte und geschliffene Wendeplatte
- scharfe Schneidkante
- 8° positiver Schnitt mit kontrolliertem Spanbruch
- Feinkornsorten mit PVD-Beschichtungen

DESCRIPTION

- polished and ground insert
- sharp cutting edge
- 8° positive cut with controlled chip-breaking
- micrograin grades with PVD coatings

APPLICATION

- finition
- géométrie universelle pour l'usinage de toutes matières

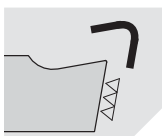
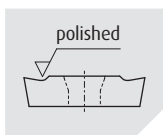
ANWENDUNG

- Schlichtbearbeitung
- allgemeine Geometrie für die Bearbeitung aller Werkstoffe

APPLICATION

- finishing
- general purpose geometry for the machining of all materials

ENP-X8°



Arête de coupe honée
Gehonte Schneidkante
Honed edge

f [mm/U]
0.03 - 0.18
0.03 - 0.18
-
0.03 - 0.20

DESCRIPTIF

- plaquette polie et rectifiée
- arête de coupe renforcée par polissage
- coupe positive 8° avec maîtrise des copeaux
- nuances micro-grain avec revêtements PVD

BESCHREIBUNG

- polierte und geschliffene Wendeplatte
- verstärkte und polierte Schneidkante
- 8° positiver Schnitt mit kontrolliertem Spanbruch
- Feinkornsorten mit PVD-Beschichtungen

DESCRIPTION

- polished and ground insert
- reinforced and polished cutting edge
- 8° positive cut with controlled chip-breaking
- micrograin grades with PVD coatings

APPLICATION

- finition et semi-finition
- usinage des aciers et aciers inoxydables

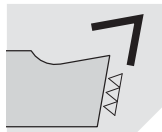
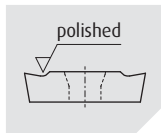
ANWENDUNG

- mittlere bis Schlichtbearbeitung
- für die Bearbeitung von Stahl und rostfreiem Stahl

APPLICATION

- finishing and semi-finishing
- steel and stainless steel machining

FN-X17°



Arête de coupe vive
Scharfe Schneidkante
Sharp edge

f [mm/U]

-

0.015 - 0.18

0.015 - 0.15

0.015 - 0.20

DESCRIPTIF

- plaquette polie et rectifiée
- arête de coupe vive
- coupe positive 17° avec maîtrise des copeaux
- nuances micro-grain avec revêtements PVD

BESCHREIBUNG

- polierte und geschliffene Wendeplatte
- scharfe Schneidkante
- 17° positiver Schnitt mit kontrolliertem Spanbruch
- Feinkornsorten mit PVD-Beschichtungen

DESCRIPTION

- polished and ground insert
- sharp cutting edge
- 17° positive cut with controlled chip-breaking
- micrograin grades with PVD coatings

APPLICATION

- finition
- usinage des alliages d'aluminium et de titane, des matières non-ferreuses, ainsi que des aciers inoxydables

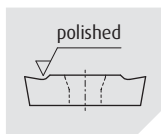
ANWENDUNG

- Schlichtbearbeitung
- Bearbeitung von Aluminium und Titan, Nichteisenmetalle und rostfreiem Stahl

APPLICATION

- finishing
- machining of aluminium alloys, non-ferrous materials and stainless steel

ENP-X17°



Arête de coupe honée
Gehonte Schneidkante
Honed edge

f [mm/U]

0.03 - 0.20

0.03 - 0.20

0.03 - 0.15

0.03 - 0.25

DESCRIPTIF

- plaquette polie et rectifiée
- arête de coupe renforcée par polissage
- coupe positive 17° avec maîtrise des copeaux
- nuances micro-grain avec revêtements PVD

BESCHREIBUNG

- polierte und geschliffene Wendeplatte
- verstärkte und polierte Schneidkante
- 17° positiver Schnitt mit kontrolliertem Spanbruch
- Feinkornsorten mit PVD-Beschichtungen

DESCRIPTION

- polished and ground insert
- reinforced and polished cutting edge
- 17° positive cut with controlled chip-breaking
- micrograin grades with PVD coatings

APPLICATION

- finition et semi-finition
- usinage des aciers et aciers inoxydables

ANWENDUNG

- mittlere bis Schlichtbearbeitung
- für die Bearbeitung von Stahl und rostfreiem Stahl

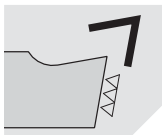
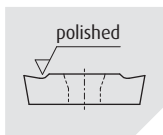
APPLICATION

- finishing and semi-finishing
- steel and stainless steel machining

Géométries de coupe Spanformgeometrien Cutting geometries

FN-X25° / ENP-X25°

FN-X25°



Arête de coupe vive
Scharfe Schneidkante
Sharp edge

f [mm/U]
-
0.015 - 0.15
0.015 - 0.15
0.015 - 0.30

DESCRIPTIF

- plaquette polie et rectifiée
- arête de coupe vive
- coupe positive 25° avec maîtrise des copeaux
- nuances micro-grain avec revêtements PVD

BESCHREIBUNG

- polierte und geschliffene Wendeplatte
- scharfe Schneidkante
- 25° positiver Schnitt mit kontrolliertem Spanbruch
- Feinkornsorten mit PVD-Beschichtungen

DESCRIPTION

- polished and ground insert
- sharp cutting edge
- 25° positive cut with controlled chip-breaking
- micrograin grades with PVD coatings

APPLICATION

- finition
- usinage des alliages d'aluminium et des matières non-ferreuses, ainsi que des aciers inoxydables

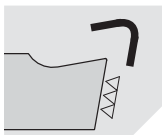
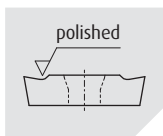
ANWENDUNG

- Schlichtbearbeitung
- Bearbeitung von Aluminium-Liegierungen, Nichteisenmetalle und rostfreiem Stahl

APPLICATION

- finishing
- machining of aluminium alloys, non-ferrous materials and stainless steel

ENP-X25°



Arête de coupe honée
Gehonte Schneidkante
Honed edge

f [mm/U]
-
0.03 - 0.15
0.03 - 0.15
0.03 - 0.30

DESCRIPTIF

- plaquette polie et rectifiée
- arête de coupe renforcée par polissage
- coupe positive 25° avec maîtrise des copeaux
- nuances micro-grain avec revêtements PVD

BESCHREIBUNG

- polierte und geschliffene Wendeplatte
- verstärkte und polierte Schneidkante
- 25° positiver Schnitt mit kontrollierte Spanbruch
- Feinkornsorten mit PVD-Beschichtungen

DESCRIPTION

- polished and ground insert
- reinforced and polished cutting edge
- 25° positive cut with controlled chip-breaking
- micrograin grades with PVD coatings

APPLICATION

- finition et semi-finition
- usinage des aciers et aciers inoxydables

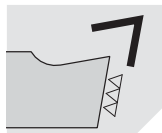
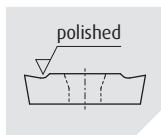
ANWENDUNG

- mittlere bis Schlichtbearbeitung
- für die Bearbeitung von Stahl und rostfreiem Stahl

APPLICATION

- finishing and semi-finishing
- steel and stainless steel machining

FL/FR-X10°



Arête de coupe vive
Scharfe Schneidkante
Sharp edge

*disponible uniquement en version 35° type VCGT-1103...
nur in 35°-Ausführung Typ VCGT-1103... erhältlich
available only in 35° execution type VCGT-1103*

f [mm/U]

0.015 - 0.12

0.015 - 0.12

0.015 - 0.10

0.015 - 0.15

DESRIPTIF

- plaquette polie et rectifiée
- arête de coupe vive
- coupe positive 10° avec maîtrise des copeaux
- nuances micro-grain avec revêtements PVD

BESCHREIBUNG

- polierte und geschliffene Wendeplatte
- scharfe Schneidkante
- 10° positiver Schnitt mit kontrolliertem Spanbruch
- Feinkornsorten mit PVD - Beschichtungen

DESCRIPTION

- polished and ground insert
- sharp cutting edge
- 10° positive cut with controlled chip-breaking
- micrograin grades with PVD coatings

APPLICATION

- finition
- géométrie universelle pour l'usinage de toutes matières

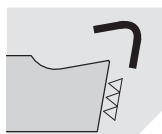
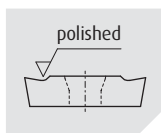
ANWENDUNG

- Schlichtbearbeitung
- allgemeine Geometrie für die Bearbeitung aller Werkstoffe

APPLICATION

- finishing
- general purpose geometry for the machining of all materials

ELP/ERP-X10°



Arête de coupe honée
Gehonte Schneidkante
Honed edge

*disponible uniquement en version 35° type VCGT-1103...
nur in 35°-Ausführung Typ VCGT-1103... erhältlich
available only in 35° execution type VCGT-1103*

f [mm/U]

0.015 - 0.12

0.015 - 0.12

0.015 - 0.10

0.015 - 0.15

DESRIPTIF

- plaquette polie et rectifiée
- arête de coupe renforcée par polissage
- coupe positive 10° avec maîtrise des copeaux
- nuances micro-grain avec revêtements PVD

BESCHREIBUNG

- polierte und geschliffene Wendeplatte
- verstärkte und polierte Schneidkante
- 10° positiver Schnitt mit kontrollierte Spanbruch
- Feinkornsorten mit PVD-Beschichtungen

DESCRIPTION

- polished and ground insert
- reinforced and polished cutting edge
- 10° positive cut with controlled chip-breaking
- micrograin grades with PVD coatings

APPLICATION

- finition et semi-finition
- usinage des aciers et aciers inoxydables

ANWENDUNG

- mittlere bis Schlichtbearbeitung
- für die Bearbeitung von Stahl und rostfreiem Stahl

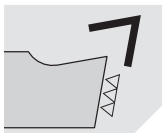
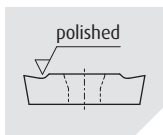
APPLICATION

- finishing and semi-finishing
- steel and stainless steel machining

Géométries de coupe Spanformgeometrien Cutting geometries

FN-K18° / FN-O°

FN-K18°



Arête de coupe vive
Scharfe Schneidkante
Sharp edge

disponible uniquement en version 35° type VCGT-1103...
nur in 35°-Ausführung Typ VCGT-1103... erhältlich
available only in 35° execution type VCGT-1103

f [mm/U]
0.01 - 0.10
0.01 - 0.10
0.01 - 0.08
0.01 - 0.15

DESCRIPTIF

- plaquette polie et rectifiée
- arête de coupe vive
- coupe positive 18° avec maîtrise des copeaux
- nuances micro-grain avec revêtements PVD

BESCHREIBUNG

- polierte und geschliffene Wendeplatte
- scharfe Schneidkante
- 18°positiver Schnitt mit kontrolliertem Spanbruch
- Feinkornsorten mit PVD-Beschichtungen

DESCRIPTION

- polished and ground insert
- sharp cutting edge
- 18° positive cut with controlled chip-breaking
- micrograin grades with PVD coatings

APPLICATION

- finition
- géométrie universelle pour l'usinage de toutes matières
- avance F = 0.01-0.10 mm / U

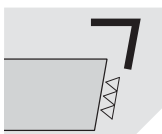
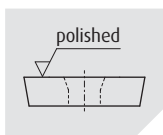
ANWENDUNG

- Schlichtbearbeitung
- allgemeine Geometrie für die Bearbeitung aller Werkstoffe
- Vorschub F = 0.01-0.10 mm / U

APPLICATION

- finishing
- general purpose geometry for the machining of all materials
- feed rat F = 0.01-0.10 mm / U

FN-O°



Arête de coupe vive
Scharfe Schneidkante
Sharp edge

disponible uniquement en version 35° type VCGW-1103...
nur in 35°-Ausführung Typ VCGW-1103... erhältlich
available only in 35° execution type VCGW-1103

f [mm/U]
0.01 - 0.10
-
-
0.01 - 0.18

DESCRIPTIF

- plaquette polie et rectifiée
- arête de coupe vive
- coupe neutre 0°
- nuances micro-grain avec revêtements PVD

BESCHREIBUNG

- polierte und geschliffene Wendeplatte
- scharfe Schneidkante
- 0° neutral Schnitt
- Feinkornsorten mit PVD-Beschichtungen

DESCRIPTION

- polished and ground insert
- sharp cutting edge
- neutral cut 0°
- micrograin grades with PVD coating

APPLICATION

- finition
- usinage du laiton

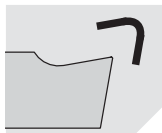
ANWENDUNG

- Schlichtbearbeitung
- Messingbearbeitung

APPLICATION

- finishing
- brass machining

EN-XF2



Arête de coupe honée
Gehonte Schneidkante
Honed edge

f [mm/U]

0.03 - 0.15

0.03 - 0.15

0.03 - 0.18

0.03 - 0.18

DESCRIPTIF

- plaquette non rectifiée
- coupe positive avec maîtrise des copeaux
- traitement spécial des arêtes de coupe
- revêtements PVD

BESCHREIBUNG

- ungeschliffene Wendeplatte
- positiver Schnitt mit kontrolliertem Spanbruch
- Schneidkantenabrundung durch Sonderbehandlungprozess
- PVD Beschichtungen

DESCRIPTION

- unground insert
- positive cut with controlled chip-breaking
- special treatment for cutting edge rounding
- PVD coatings

APPLICATION

- finition et semi-finition
- usinage des aciers et acier inoxydables
- très bonne maîtrise du copeau avec des avances faibles et peu de profondeur de passe

ANWENDUNG

- mittlere bis Schlichtbearbeitung
- für die Bearbeitung von Stahl und rostfreiem Stahl
- sehr gute Spankontrolle

APPLICATION

- finishing and semi-finishing
- steel and stainless steel machining
- very efficient chip control with low feed rate and small cutting depth

EN-MF



Arête de coupe honée
Gehonte Schneidkante
Honed edge

f [mm/U]

0.05 - 0.30

0.05 - 0.25

-

-

DESCRIPTIF

- plaquette non rectifiée
- coupe positive avec maîtrise des copeaux
- traitement spécial des arêtes de coupe
- revêtements PVD et CVD

BESCHREIBUNG

- ungeschliffene Wendeplatte
- positiver Schnitt mit kontrolliertem Spanbruch
- Schneidkantenabrundung durch Sonderbehandlungsprozess
- PVD und CVD Beschichtungen

DESCRIPTION

- unground insert
- positive cut with controlled chip-breaking
- special treatment for cutting edge rounding
- PVD and CVD coatings

APPLICATION

- travaux moyens
- usinage des aciers et aciers inoxydables

ANWENDUNG

- mittlere Bearbeitung
- für die Bearbeitung von Stahl und rostfreiem Stahl

APPLICATION

- medium turning
- steel and stainless steel machining

Géometries de coupe Spanformgeometrien Cutting geometries

EN-HF

EN-HF



Arête de coupe honée
Gehonte Schneidkante
Honed edge

f [mm/U]

0.1 - 0.35

0.1 - 0.30

-

-

DESCRIPTIF

- plaquette non rectifiée
- coupe positive avec maîtrise des copeaux
- traitement spécial des arêtes de coupe
- revêtement PVD et CVD

BESCHREIBUNG

- ungeschliffene Wendeplatte
- positiver Schnitt mit kontrolliertem Spanbruch
- Schneidkantenabrundung durch Sonderbehandlungsprozess
- PVD und CVD Beschichtung

DESCRIPTION

- unground insert
- positive cut with controlled chip-breaking
- special treatment for cutting edge rounding
- PVD and CVD coating

APPLICATION

- ébauche et travaux moyens
- usinage des aciers et acier inoxydables
- excellente finition des aciers au carbone

ANWENDUNG

- Schruppen bis mittlere Bearbeitung
- für die Bearbeitung von Stahl und rostfreiem Stahl
- sehr effizient für die Oberflächengüte im Kohlenstoffstahl

APPLICATION

- roughing to semi-finishing
- steel and stainless steel machining
- very efficient surface finish in carbon steel



SCA



SCL

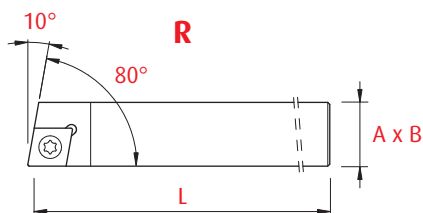


SCM

Porte-outils
Halter
Holders

80°

SCA

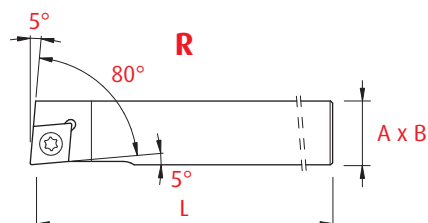


Art. N° L	Art. N° R	Plaquette WSP Insert	A x B x L
SCACL-0808X-06-N	SCACR-0808X-06-N	CC...0602..	8 x 8 x 115
SCACL-1010X-06-N	SCACR-1010X-06-N		10 x 10 x 115
SCACL-1212X-06-N	SCACR-1212X-06-N		12 x 12 x 130
SCACL-1212G-06-N	SCACR-1212G-06-N		12 x 12 x 90
SCACL-1616X-06-N	SCACR-1616X-06-N		16 x 16 x 130
SCACL-1616F-06-N	SCACR-1616F-06-N		16 x 16 x 75
SCACL-1212X-09-N	SCACR-1212X-09-N	CC...09T3..	12 x 12 x 130
SCACL-1212G-09-N	SCACR-1212G-09-N		12 x 12 x 90
SCACL-1616X-09-N	SCACR-1616X-09-N		16 x 16 x 130
SCACL-1616F-09-N	SCACR-1616F-09-N		16 x 16 x 75
SCACL-2020X-09-N	SCACR-2020X-09-N		20 x 20 x 120

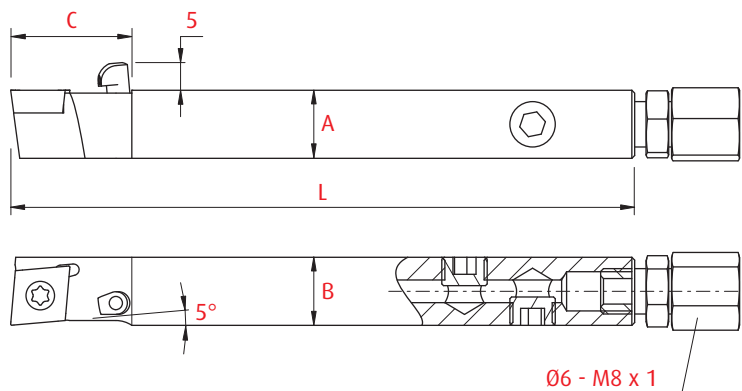
Porte-outils Halter Holders

80°

SCL

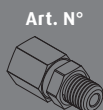


Art. N° L	Art. N° R	Plaquette WSP Insert	A x B x L
SCLCL-0808X-06-N	SCLCR-0808X-06-N	CC...0602..	8 x 8 x 115
SCLCL-1010X-06-N	SCLCR-1010X-06-N		10 x 10 x 115
SCLCL-1212X-06-N	SCLCR-1212X-06-N		12 x 12 x 130
SCLCL-1212G-06-N	SCLCR-1212G-06-N		12 x 12 x 90
SCLCL-1616X-06-N	SCLCR-1616X-06-N		16 x 16 x 130
SCLCL-1616F-06-N	SCLCR-1616F-06-N		16 x 16 x 75
SCLCL-1212X-09-N	SCLCR-1212X-09-N	CC...09T3..	12 x 12 x 130
SCLCL-1212G-09-N	SCLCR-1212G-09-N		12 x 12 x 90
SCLCL-1616X-09-N	SCLCR-1616X-09-N		16 x 16 x 130
SCLCL-1616F-09-N	SCLCR-1616F-09-N		16 x 16 x 75
SCLCL-2020X-09-N	SCLCR-2020X-09-N		20 x 20 x 120



Art. N° R	Plaquette WSP Insert	A x B x L	C
SCLCR-1010J-06-JET-N	CC...0602..	10 x 10 x 110	21
SCLCR-1212J-06-JET-N		12 x 12 x 110	21
SCLCR-1616J-06-JET-N		16 x 16 x 110	21
SCLCR-1212J-09-JET-N	CC...09T3..	12 x 12 x 110	21
SCLCR-1616J-09-JET-N		16 x 16 x 110	21
SCLCR-2020J-09-JET-N		20 x 20 x 110	21

Pièces de rechange
Ersatzteile
Spare parts



J-M8X1-D6

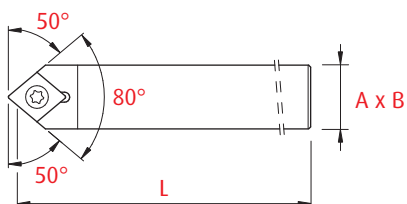


JB-M8X1

Porte-outils Halter Holders

80°

SCM



Art. N°	Plaquette WSP Insert	A x B x L
SCMCN-0808X-06-N	CC..-0602..	8 x 8 x 115
SCMCN-1010X-06-N		10 x 10 x 115
SCMCN-1212X-06-N		12 x 12 x 130
SCMCN-1212G-06-N		12 x 12 x 90
SCMCN-1616X-06-N		16 x 16 x 130
SCMCN-1616F-06-N		16 x 16 x 75
SCMCN-1212X-09-N	CC..-09T3..	12 x 12 x 130
SCMCN-1212G-09-N		12 x 12 x 90
SCMCN-1616X-09-N		16 x 16 x 130
SCMCN-1616F-09-N		16 x 16 x 75
SCMCN-2020X-09-N		20 x 20 x 120



**CCGT
FN-X8°**



Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN	K20	HTA	K10	
CCGT-0602005-FN-X8	0.05	■	■	■	■	■	
CCGT-060201-FN-X8	0.1	■	■	■	■	■	
CCGT-060202-FN-X8	0.2	■	■	■	■	■	
CCGT-060204-FN-X8	0.4	■	■	■	■	■	
CCGT-09T3005-FN-X8	0.05	■	■	■	■	■	
CCGT-09T301-FN-X8	0.1	■	■	■	■	■	
CCGT-09T302-FN-X8	0.2	■	■	■	■	■	
CCGT-09T304-FN-X8	0.4	■	■	■	■	■	



**CCGT
ENP-X8°**

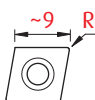


Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN	K20	HTA	K10	
CCGT-0602005-ENP-X8	0.05	■	■	■			
CCGT-060201-ENP-X8	0.1	■	■	■			
CCGT-060202-ENP-X8	0.2	■	■	■			
CCGT-060204-ENP-X8	0.4	■	■	■			
CCGT-09T3005-ENP-X8	0.05	■	■	■			
CCGT-09T301-ENP-X8	0.1	■	■	■			
CCGT-09T302-ENP-X8	0.2	■	■	■			
CCGT-09T304-ENP-X8	0.4	■	■	■			

Plaquettes en métal dur VHM-Wendeplatten Solid carbide inserts

80°

CCGT-X17°


**CCGT
FN-X17°**


Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN	K20	HTA	K10	
CCGT-0602005-FN-X17	0.05	■	■	■	■	■	
CCGT-060201-FN-X17	0.1	■	■	■	■	■	
CCGT-060202-FN-X17	0.2	■	■	■	■	■	
CCGT-060204-FN-X17	0.4	■	■	■	■	■	
CCGT-09T3005-FN-X17	0.05	■	■	■	■	■	
CCGT-09T301-FN-X17	0.1	■	■	■	■	■	
CCGT-09T302-FN-X17	0.2	■	■	■	■	■	
CCGT-09T304-FN-X17	0.4	■	■	■	■	■	
CCGT-09T308-FN-X17	0.8	■	■	■	■	■	


**CCGT
ENP-X17°**


Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN	K20	HTA	K10	
CCGT-0602005-ENP-X17	0.05	■	■	■			
CCGT-060201-ENP-X17	0.1	■	■	■			
CCGT-060202-ENP-X17	0.2	■	■	■			
CCGT-060204-ENP-X17	0.4	■	■	■			
CCGT-09T3005-ENP-X17	0.05	■	■	■			
CCGT-09T301-ENP-X17	0.1	■	■	■			
CCGT-09T302-ENP-X17	0.2	■	■	■			
CCGT-09T304-ENP-X17	0.4	■	■	■			
CCGT-09T308-ENP-X17	0.8	■	■	■			



**CCGT
FN-X25°**



Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN	K20	HTA	K10	
CCGT-0602005-FN-X25	0.05	■	■	■	■	■	
CCGT-060201-FN-X25	0.1	■	■	■	■	■	
CCGT-060202-FN-X25	0.2	■	■	■	■	■	
CCGT-060204-FN-X25	0.4	■	■	■	■	■	
CCGT-09T3005-FN-X25	0.05	■	■	■	■	■	
CCGT-09T301-FN-X25	0.1	■	■	■	■	■	
CCGT-09T302-FN-X25	0.2	■	■	■	■	■	
CCGT-09T304-FN-X25	0.4	■	■	■	■	■	
CCGT-09T308-FN-X25	0.8	■	■	■	■	■	



**CCGT
ENP-X25°**



Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN	K20	HTA	K10	
CCGT-0602005-ENP-X25	0.05	■	■	■			
CCGT-060201-ENP-X25	0.1	■	■	■			
CCGT-060202-ENP-X25	0.2	■	■	■			
CCGT-060204-ENP-X25	0.4	■	■	■			
CCGT-09T3005-ENP-X25	0.05	■	■	■			
CCGT-09T301-ENP-X25	0.1	■	■	■			
CCGT-09T302-ENP-X25	0.2	■	■	■			
CCGT-09T304-ENP-X25	0.4	■	■	■			
CCGT-09T308-ENP-X25	0.8	■	■	■			

Plaquettes en métal dur
VHM-Wendeplatten
Solid carbide inserts

80°

CCMT



**CCMT
EN-XF2**



Art. N°	R	PVD			CVD
		Tmax	TAC	HTAC	Ti4
CCMT-060202-EN-XF2	0.2	■	■		
CCMT-060204-EN-XF2	0.4	■	■		
CCMT-09T302-EN-XF2	0.2	■	■		
CCMT-09T304-EN-XF2	0.4	■	■		



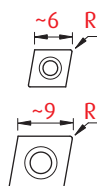
**CCMT
EN-MF**



Art. N°	R	PVD			CVD
		Tmax	TAC	HTAC	Ti4
CCMT-060202-EN-MF	0.2	■			■
CCMT-060204-EN-MF	0.4	■			■
CCMT-09T302-EN-MF	0.2	■			■
CCMT-09T304-EN-MF	0.4	■			■



**CCMT
EN-HF**



Art. N°	R	PVD			CVD
		Tmax	TAC	HTAC	Ti4
CCMT-060204-EN-HF	0.4	■			■
CCMT-060208-EN-HF	0.8	■			■
CCMT-09T304-EN-HF	0.4	■			■
CCMT-09T308-EN-HF	0.8	■			■



SDA



SDJ



SDN



SDH

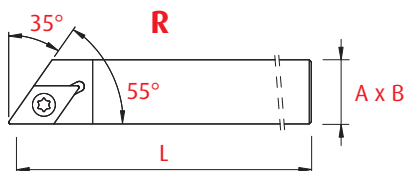
Porte-outils
Halter
Holders

55°

SDA



L



R

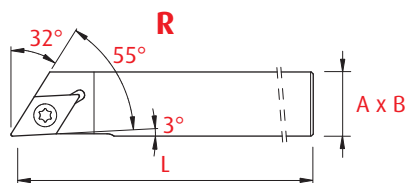
A x B

Art. N° L	Art. N° R	Plaquette WSP Insert	A x B x L
SDACL-0808X-07-N	SDACR-0808X-07-N	DC...0702..	8 x 8 x 115
SDACL-1010X-07-N	SDACR-1010X-07-N		10 x 10 x 115
SDACL-1212X-07-N	SDACR-1212X-07-N		12 x 12 x 130
SDACL-1212G-07-N	SDACR-1212G-07-N		12 x 12 x 90
SDACL-1616X-07-N	SDACR-1616X-07-N		16 x 16 x 130
SDACL-1616F-07-N	SDACR-1616F-07-N		16 x 16 x 75
SDACL-1212X-11-N	SDACR-1212X-11-N	DC...11T3..	12 x 12 x 130
SDACL-1212G-11-N	SDACR-1212G-11-N		12 x 12 x 90
SDACL-1616X-11-N	SDACR-1616X-11-N		16 x 16 x 130
SDACL-1616F-11-N	SDACR-1616F-11-N		16 x 16 x 75
SDACL-2020X-11-N	SDACR-2020X-11-N		20 x 20 x 120

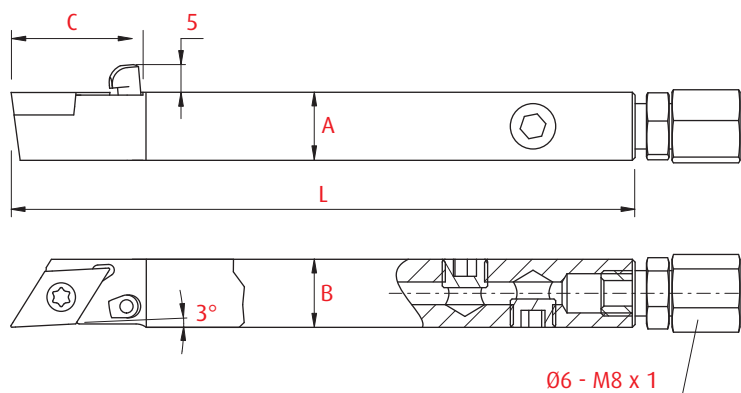
Porte-outils
Halter
Holders

55°

SDJ

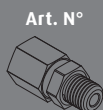


Art. N° L	Art. N° R	Plaquette WSP Insert	A x B x L
SDJCL-0808X-07-N	SDJCR-0808X-07-N	DC...0702..	8 x 8 x 115
SDJCL-1010X-07-N	SDJCR-1010X-07-N		10 x 10 x 115
SDJCL-1212X-07-N	SDJCR-1212X-07-N		12 x 12 x 130
SDJCL-1212G-07-N	SDJCR-1212G-07-N		12 x 12 x 90
SDJCL-1616X-07-N	SDJCR-1616X-07-N		16 x 16 x 130
SDJCL-1616F-07-N	SDJCR-1616F-07-N		16 x 16 x 75
SDJCL-2020X-07-N	SDJCR-2020X-07-N		20 x 20 x 120
SDJCL-1212X-11-N	SDJCR-1212X-11-N	DC...11T3..	12 x 12 x 130
SDJCL-1212G-11-N	SDJCR-1212G-11-N		12 x 12 x 90
SDJCL-1616X-11-N	SDJCR-1616X-11-N		16 x 16 x 130
SDJCL-1616F-11-N	SDJCR-1616F-11-N		16 x 16 x 75
SDJCL-2020X-11-N	SDJCR-2020X-11-N		20 x 20 x 120



Art. N° R	Plaquette WSP Insert	A x B x L	C
SDJCR-1010J-07-JET-N	DC...-0702..	10 x 10 x 110	20
SDJCR-1212J-07-JET-N		12 x 12 x 110	20
SDJCR-1616J-07-JET-N		16 x 16 x 110	20
SDJCR-2020J-07-JET-N		20 x 20 x 110	20
SDJCR-1212J-11-JET-N	DC...-11T3..	12 x 12 x 110	23
SDJCR-1616J-11-JET-N		16 x 16 x 110	23
SDJCR-2020J-11-JET-N		20 x 20 x 110	23

Pièces de rechange
Ersatzteile
Spare parts



J-M8X1-D6

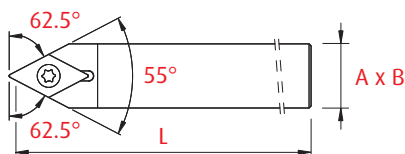


JB-M8X1

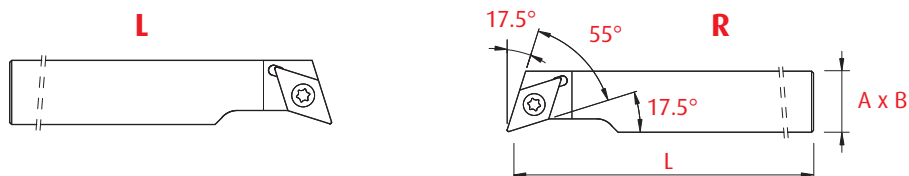
Porte-outils
Halter
Holders

55°

SDN



Art. N°	Plaquette WSP Insert	A x B x L
SDNCN-0808X-07-N	DC...0702..	8 x 8 x 115
SDNCN-1010X-07-N		10 x 10 x 115
SDNCN-1212X-07-N		12 x 12 x 130
SDNCN-1212G-07-N		12 x 12 x 90
SDNCN-1616X-07-N		16 x 16 x 130
SDNCN-1616F-07-N		16 x 16 x 75
SDNCN-1212X-11-N	DC...11T3..	12 x 12 x 130
SDNCN-1212G-11-N		12 x 12 x 90
SDNCN-1616X-11-N		16 x 16 x 130
SDNCN-1616F-11-N		16 x 16 x 75
SDNCN-2020X-11-N		20 x 20 x 120

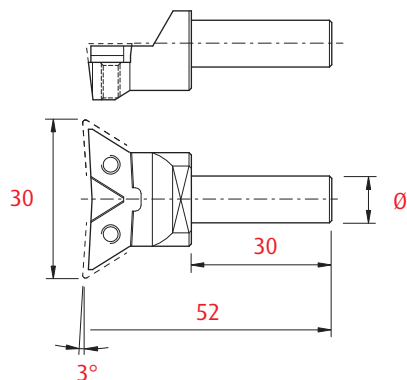


Art. N° L	Art. N° R	Plaquette WSP Insert	A x B x L
SDHCL-1010X-07-N	SDHCR-1010X-07-N	DC..-0702..	10 x 10 x 115
SDHCL-1212X-07-N	SDHCR-1212X-07-N		12 x 12 x 130
SDHCL-1212G-07-N	SDHCR-1212G-07-N		12 x 12 x 90
SDHCL-1616X-07-N	SDHCR-1616X-07-N		16 x 16 x 130
SDHCL-1616F-07-N	SDHCR-1616F-07-N		16 x 16 x 75
SDHCL-1616X-11-N	SDHCR-1616X-11-N	DC..-11T3..	16 x 16 x 130
SDHCL-1616F-11-N	SDHCR-1616F-11-N		16 x 16 x 75
SDHCL-2020X-11-N	SDHCR-2020X-11-N		20 x 20 x 120

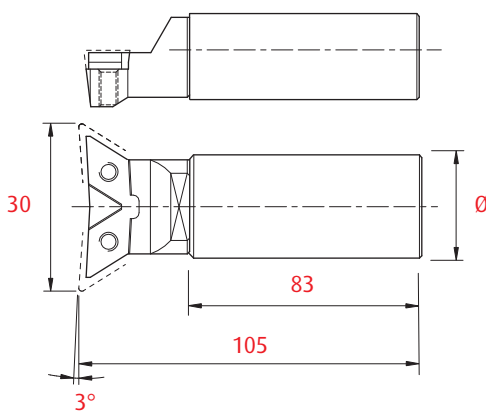
Porte-outils
Halter
Holders

55°

SDU



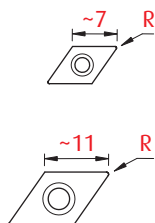
Art. N°	Plaquette WSP Insert	Ø
SDUC-D10X-11-N	DC..-11T3..	10



Art. N°	Plaquette WSP Insert	Ø
SDUC-D20X-11-N	DC..-11T3..	20
SDUC-D25.4X-11-N		25.4



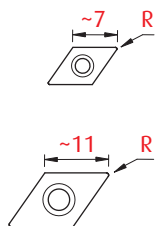
**DCGT
FN-X8°**



Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN		HTA	K10	
DCGT-0702005-FN-X8	0.05	■	■	■	■	■	■
DCGT-070201-FN-X8	0.1	■	■	■	■	■	■
DCGT-070202-FN-X8	0.2	■	■	■	■	■	■
DCGT-070204-FN-X8	0.4	■	■	■	■	■	■
DCGT-11T3005-FN-X8	0.05	■	■	■	■	■	■
DCGT-11T301-FN-X8	0.1	■	■	■	■	■	■
DCGT-11T302-FN-X8	0.2	■	■	■	■	■	■
DCGT-11T304-FN-X8	0.4	■	■	■	■	■	■



**DCGT
ENP-X8°**



Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN		HTA	K10	
DCGT-0702005-ENP-X8	0.05	■	■	■			
DCGT-070201-ENP-X8	0.1	■	■	■			
DCGT-070202-ENP-X8	0.2	■	■	■			
DCGT-070204-ENP-X8	0.4	■	■	■			
DCGT-11T3005-ENP-X8	0.05	■	■	■			
DCGT-11T301-ENP-X8	0.1	■	■	■			
DCGT-11T302-ENP-X8	0.2	■	■	■			
DCGT-11T304-ENP-X8	0.4	■	■	■			

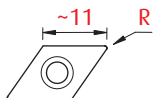
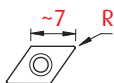
Plaquettes en métal dur
VHM-Wendeplatten
Solid carbide inserts

55°

DCGT-X17°



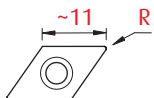
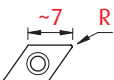
**DCGT
FN-X17°**



Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN	K20	HTA	K10	
DCGT-0702005-FN-X17	0.05	■	■	■	■	■	
DCGT-070201-FN-X17	0.1	■	■	■	■	■	
DCGT-070202-FN-X17	0.2	■	■	■	■	■	
DCGT-070204-FN-X17	0.4	■	■	■	■	■	
DCGT-11T3005-FN-X17	0.05	■	■	■	■	■	
DCGT-11T301-FN-X17	0.1	■	■	■	■	■	
DCGT-11T302-FN-X17	0.2	■	■	■	■	■	
DCGT-11T304-FN-X17	0.4	■	■	■	■	■	
DCGT-11T308-FN-X17	0.8	■	■	■	■	■	



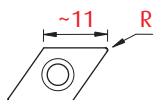
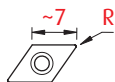
**DCGT
ENP-X17°**



Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN	K20	HTA	K10	
DCGT-0702005-ENP-X17	0.05	■	■	■			
DCGT-070201-ENP-X17	0.1	■	■	■			
DCGT-070202-ENP-X17	0.2	■	■	■			
DCGT-070204-ENP-X17	0.4	■	■	■			
DCGT-11T3005-ENP-X17	0.05	■	■	■			
DCGT-11T301-ENP-X17	0.1	■	■	■			
DCGT-11T302-ENP-X17	0.2	■	■	■			
DCGT-11T304-ENP-X17	0.4	■	■	■			
DCGT-11T308-ENP-X17	0.8	■	■	■			



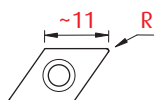
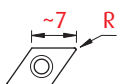
**DCGT
FN-X25°**



Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN		HTA	K10	
DCGT-0702005-FN-X25	0.05	■	■	■	■	■	■
DCGT-070201-FN-X25	0.1	■	■	■	■	■	■
DCGT-070202-FN-X25	0.2	■	■	■	■	■	■
DCGT-070204-FN-X25	0.4	■	■	■	■	■	■
DCGT-11T3005-FN-X25	0.05	■	■	■	■	■	■
DCGT-11T301-FN-X25	0.1	■	■	■	■	■	■
DCGT-11T302-FN-X25	0.2	■	■	■	■	■	■
DCGT-11T304-FN-X25	0.4	■	■	■	■	■	■
DCGT-11T308-FN-X25	0.8	■	■	■	■	■	■



**DCGT
ENP-X25°**



Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN		HTA	K10	
DCGT-0702005-ENP-X25	0.05	■	■	■			
DCGT-070201-ENP-X25	0.1	■	■	■			
DCGT-070202-ENP-X25	0.2	■	■	■			
DCGT-070204-ENP-X25	0.4	■	■	■			
DCGT-11T3005-ENP-X25	0.05	■	■	■			
DCGT-11T301-ENP-X25	0.1	■	■	■			
DCGT-11T302-ENP-X25	0.2	■	■	■			
DCGT-11T304-ENP-X25	0.4	■	■	■			
DCGT-11T308-ENP-X25	0.8	■	■	■			

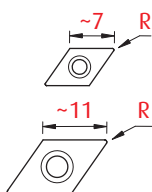
Plaquettes en métal dur
VHM-Wendeplatten
Solid carbide inserts

55°

DCMT



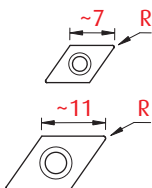
**DCMT
EN-XF2**



Art. N°	R	PVD			CVD
		Tmax	TAC	HTAC	Ti4
DCMT-070202-EN-XF2	0.2	■	■		
DCMT-070204-EN-XF2	0.4	■	■		
DCMT-11T302-EN-XF2	0.2	■	■		
DCMT-11T304-EN-XF2	0.4	■	■		



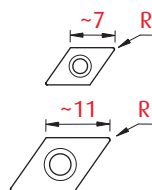
**DCMT
EN-MF**



Art. N°	R	PVD			CVD
		Tmax	TAC	HTAC	Ti4
DCMT-070202-EN-MF	0.2	■			■
DCMT-070204-EN-MF	0.4	■			■
DCMT-11T302-EN-MF	0.2	■			■
DCMT-11T304-EN-MF	0.4	■			■



**DCMT
EN-HF**



Art. N°	R	PVD			CVD
		Tmax	TAC	HTAC	Ti4
DCMT-070204-EN-HF	0.4	■			■
DCMT-070208-EN-HF	0.8	■			■
DCMT-11T304-EN-HF	0.4	■			■
DCMT-11T308-EN-HF	0.8	■			■



SVA



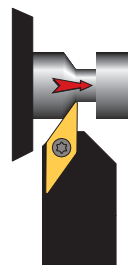
SVJ



SVV



SVX

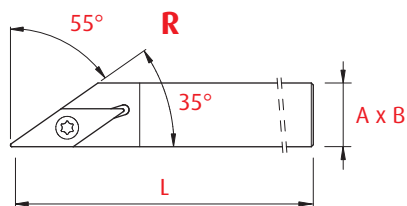
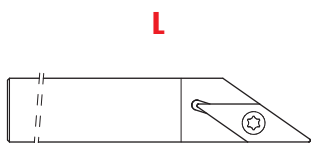


SV-CL/R

Porte-outils
Halter
Holders

35°

SVA

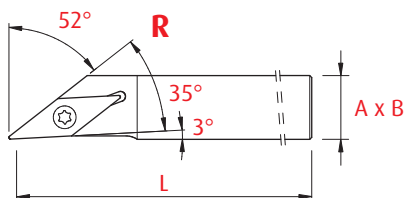
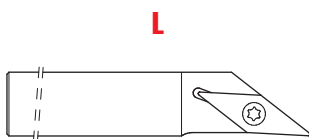


Art. N° L	Art. N° R	Plaquette WSP Insert	A x B x L
SVACL-0808X-11-N	SVACR-0808X-11-N	VC...-1103..	8 x 8 x 115
SVACL-1010X-11-N	SVACR-1010X-11-N		10 x 10 x 115
SVACL-1212X-11-N	SVACR-1212X-11-N		12 x 12 x 130
SVACL-1212G-11-N	SVACR-1212G-11-N		12 x 12 x 90
SVACL-1616X-11-N	SVACR-1616X-11-N		16 x 16 x 130
SVACL-1616F-11-N	SVACR-1616F-11-N		16 x 16 x 75
SVACL-2020X-11-N	SVACR-2020X-11-N		20 x 20 x 120
SVACL-1212X-16-N	SVACR-1212X-16-N	VC...-1604..	12 x 12 x 130
SVACL-1212G-16-N	SVACR-1212G-16-N		12 x 12 x 90
SVACL-1616X-16-N	SVACR-1616X-16-N		16 x 16 x 130
SVACL-1616F-16-N	SVACR-1616F-16-N		16 x 16 x 75
SVACL-2020X-16-N	SVACR-2020X-16-N		20 x 20 x 120

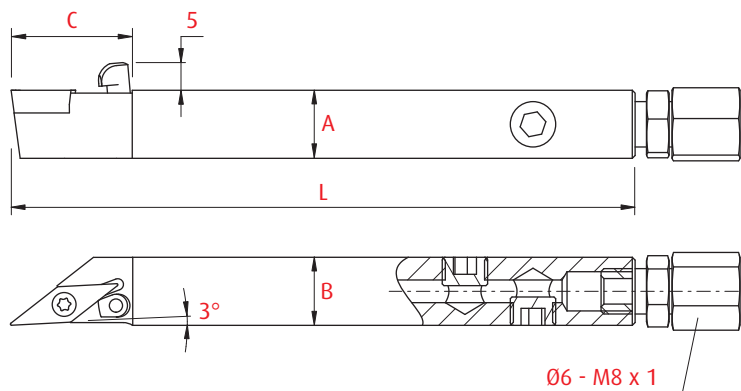
Porte-outils Halter Holders

35°

SVJ



Art. N° L	Art. N° R	Plaquette WSP Insert	A x B x L
SVJCL-0808X-11-N	SVJCR-0808X-11-N	VC..-1103..	8 x 8 x 115
SVJCL-1010X-11-N	SVJCR-1010X-11-N		10 x 10 x 115
SVJCL-1212X-11-N	SVJCR-1212X-11-N		12 x 12 x 130
SVJCL-1212G-11-N	SVJCR-1212G-11-N		12 x 12 x 90
SVJCL-1616X-11-N	SVJCR-1616X-11-N		16 x 16 x 130
SVJCL-1616F-11-N	SVJCR-1616F-11-N		16 x 16 x 75
SVJCL-2020X-11-N	SVJCR-2020X-11-N		20 x 20 x 120
SVJCL-1212X-16-N	SVJCR-1212X-16-N	VC..-1604..	12 x 12 x 130
SVJCL-1212G-16-N	SVJCR-1212G-16-N		12 x 12 x 90
SVJCL-1616X-16-N	SVJCR-1616X-16-N		16 x 16 x 130
SVJCL-1616F-16-N	SVJCR-1616F-16-N		16 x 16 x 75
SVJCL-2020X-16-N	SVJCR-2020X-16-N		20 x 20 x 120



Art. N° R	Plaquette WSP Insert	A x B x L	C
SVJCR-1010J-11-JET-N	VC...-1103..	10 x 10 x 110	21
SVJCR-1212J-11-JET-N		12 x 12 x 110	21
SVJCR-1616J-11-JET-N		16 x 16 x 110	21
SVJCR-2020J-11-JET-N		20 x 20 x 110	21
SVJCR-1212J-16-JET-N	VC...-1604..	12 x 12 x 110	30
SVJCR-1616J-16-JET-N		16 x 16 x 110	30
SVJCR-2020J-16-JET-N		20 x 20 x 110	30

Pièces de rechange
 Ersatzteile
 Spare parts



J-M8X1-D6

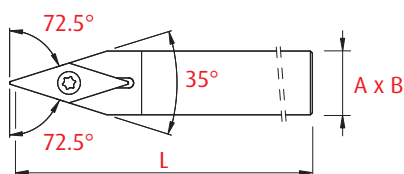


JB-M8X1

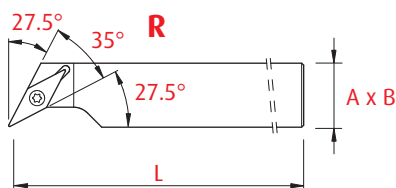
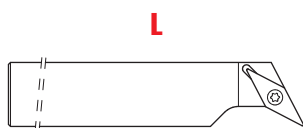
Porte-outils Halter Holders

35°

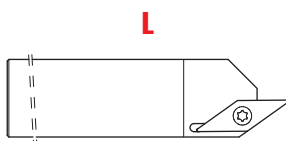
SVV



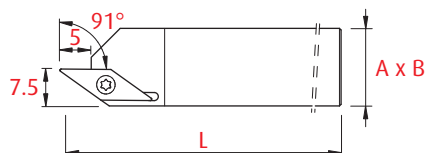
Art. N°	Plaquette WSP Insert	A x B x L
SVVCN-0808X-11-N	VC...1103..	8 x 8 x 115
SVVCN-1010X-11-N		10 x 10 x 115
SVVCN-1212X-11-N		12 x 12 x 130
SVVCN-1212G-11-N		12 x 12 x 90
SVVCN-1616X-11-N		16 x 16 x 130
SVVCN-1616F-11-N		16 x 16 x 75
SVVCN-2020X-11-N		20 x 20 x 120
SVVCN-1212X-16-N	VC...1604..	12 x 12 x 130
SVVCN-1212G-16-N		12 x 12 x 90
SVVCN-1616X-16-N		16 x 16 x 130
SVVCN-1616F-16-N		16 x 16 x 75
SVVCN-2020X-16-N		20 x 20 x 120



Art. N° L	Art. N° R	Plaquette WSP Insert	A x B x L
SVXCL-1616X-11-N	SVXCR-1616X-11-N	VC...1103..	16 x 16 x 130
SVXCL-1616F-11-N	SVXCR-1616F-11-N		16 x 16 x 75
SVXCL-2020X-11-N	SVXCR-2020X-11-N		20 x 20 x 120



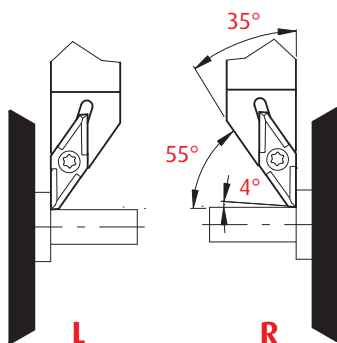
tournage arrière
rückwärts drehen
back turning



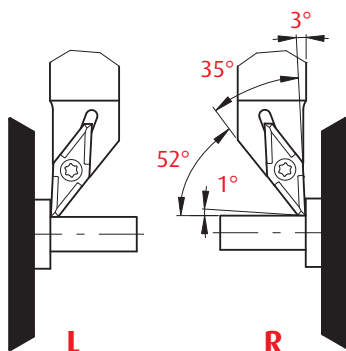
Art. N° L	Art. N° R	Plaquette WSP Insert	A x B x L
SV-CL-1212X-11-N	SV-CR-1212X-11-N	VC...1103..	12 x 12 x 130
SV-CL-1212G-11-N	SV-CR-1212G-11-N		12 x 12 x 90
SV-CL-1616X-11-N	SV-CR-1616X-11-N		16 x 16 x 130
SV-CL-1616F-11-N	SV-CR-1616F-11-N		16 x 16 x 75
SV-CL-2020X-11-N	SV-CR-2020X-11-N		20 x 20 x 120

Porte-outils compatibles avec plaquettes VCGT FL/FR-X10°
Passende Halter zu den Wendepplatten VCGT FL/FR-X10°
Holders compatible with inserts VCGT FL/FR-X10°

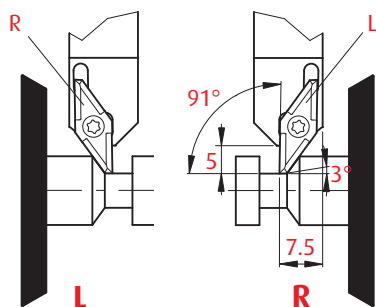
35°



Art. N°	
SVACR-...-11-N	R
SVACL-...-11-N	L



Art. N°	
SVJCR-...-11-N	R
SVJCL-...-11-N	L



Art. N°	
SV-CR-...-11-N	R
SV-CL-...-11-N	L

Plaquettes en métal dur
VHM-Wendplatten
Solid carbide inserts

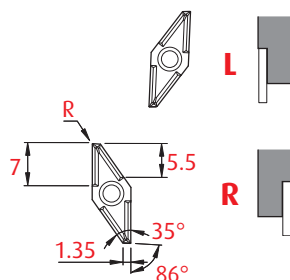
35°

VC GT-FL / FR-X10°



**VC GT
FL / FR-X10°**

Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN	K20	HTA	K10	
VC GT-1103003-FL-X10	0.03	■	■	■	■	■	
VC GT-1103008-FL-X10	0.08	■	■	■	■	■	
VC GT-110301-FL-X10	0.1	■	■	■	■	■	
VC GT-110302-FL-X10	0.2	■	■	■	■	■	
VC GT-1103003-FR-X10	0.03	■	■	■	■	■	
● VC GT-1103008-FR-X10	0.08	■	■	■	■	■	
VC GT-110301-FR-X10	0.1	■	■	■	■	■	
VC GT-110302-FR-X10	0.2	■	■	■	■	■	



Plaquettes en métal dur
VHM-Wendplatten
Solid carbide inserts

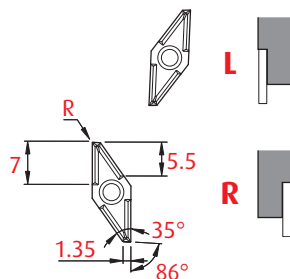
35°

VC GT-ELP / ERP-X10°



**VC GT
ELP/ERP-X10°**

Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN	K20	HTA	K10	
VC GT-1103003-ELP-X10	0.03	■	■	■	■	■	
VC GT-1103008-ELP-X10	0.08	■	■	■	■	■	
VC GT-110301-ELP-X10	0.1	■	■	■	■	■	
VC GT-110302-ELP-X10	0.2	■	■	■	■	■	
VC GT-1103003-ERP-X10	0.03	■	■	■	■	■	
VC GT-1103008-ERP-X10	0.08	■	■	■	■	■	
VC GT-110301-ERP-X10	0.1	■	■	■	■	■	
VC GT-110302-ERP-X10	0.2	■	■	■	■	■	



Plaquettes en métal dur
VHM-Wendeplatten
Solid carbide inserts

35°

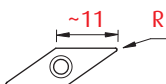
VCGT



VCGT
FN-K18°

PVD

non revêtu
unbeschichtet
uncoated



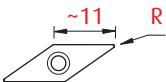
Art. N°	R	HTA	HTiN	K10
VCGT-1103005-FN-K18	0.05	■	■	■
VCGT-110301-FN-K18	0.1	■	■	■
VCGT-110302-FN-K18	0.2	■	■	■
VCGT-110304-FN-K18	0.4	■	■	■



VCGW-0°

PVD

non revêtu
unbeschichtet
uncoated

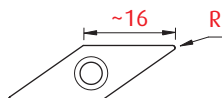
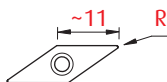


Art. N°	R	HTA	HTiN	K10
VCGW-1103005-FN-0	0.05	■	■	■
VCGW-110301-FN-0	0.1	■	■	■
VCGW-110302-FN-0	0.2	■	■	■
VCGW-110304-FN-0	0.4	■	■	■



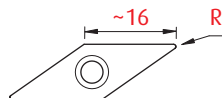
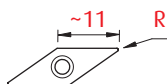
**VCGT
FN-X8°**

Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN	K20	HTA	K10	
VCGT-1103005-FN-X8	0.05	■	■	■	■	■	
VCGT-110301-FN-X8	0.1	■	■	■	■	■	
VCGT-110302-FN-X8	0.2	■	■	■	■	■	
VCGT-110304-FN-X8	0.4	■	■	■	■	■	
VCGT-1604005-FN-X8	0.05	■	■	■	■	■	
VCGT-160401-FN-X8	0.1	■	■	■	■	■	
VCGT-160402-FN-X8	0.2	■	■	■	■	■	
VCGT-160404-FN-X8	0.4	■	■	■	■	■	



**VCGT
ENP-X8°**

Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN	K20	HTA	K10	
VCGT-1103005-ENP-X8	0.05	■	■	■			
VCGT-110301-ENP-X8	0.1	■	■	■			
VCGT-110302-ENP-X8	0.2	■	■	■			
VCGT-110304-ENP-X8	0.4	■	■	■			
VCGT-1604005-ENP-X8	0.05	■	■	■			
VCGT-160401-ENP-X8	0.1	■	■	■			
VCGT-160402-ENP-X8	0.2	■	■	■			
VCGT-160404-ENP-X8	0.4	■	■	■			



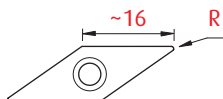
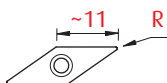
Plaquettes en métal dur VHM-Wendeplatten Solid carbide inserts

35°

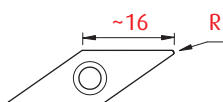
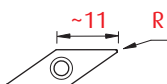
VCGT-X17°


**VCGT
FN-X17°**

Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN	K20	HTA	K10	
VCGT-1103005-FN-X17	0.05	■	■	■	■	■	
VCGT-110301-FN-X17	0.1	■	■	■	■	■	
VCGT-110302-FN-X17	0.2	■	■	■	■	■	
VCGT-110304-FN-X17	0.4	■	■	■	■	■	
VCGT-1604005-FN-X17	0.05	■	■	■	■	■	
VCGT-160401-FN-X17	0.1	■	■	■	■	■	
VCGT-160402-FN-X17	0.2	■	■	■	■	■	
VCGT-160404-FN-X17	0.4	■	■	■	■	■	
VCGT-160408-FN-X17	0.8	■	■	■	■	■	


**VCGT
ENP-X17°**

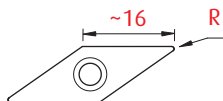
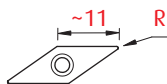
Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN	K20	HTA	K10	
VCGT-1103005-ENP-X17	0.05	■	■	■			
VCGT-110301-ENP-X17	0.1	■	■	■			
VCGT-110302-ENP-X17	0.2	■	■	■			
VCGT-110304-ENP-X17	0.4	■	■	■			
VCGT-1604005-ENP-X17	0.05	■	■	■			
VCGT-160401-ENP-X17	0.1	■	■	■			
VCGT-160402-ENP-X17	0.2	■	■	■			
VCGT-160404-ENP-X17	0.4	■	■	■			
VCGT-160408-ENP-X17	0.8	■	■	■			





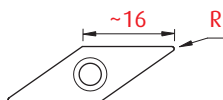
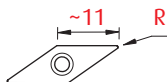
**VCGT
FN-X25°**

Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN	K20	HTA	K10	
VCGT-1103005-FN-X25	0.05	■	■	■	■	■	
VCGT-110301-FN-X25	0.1	■	■	■	■	■	
VCGT-110302-FN-X25	0.2	■	■	■	■	■	
VCGT-110304-FN-X25	0.4	■	■	■	■	■	
VCGT-1604005-FN-X25	0.05	■	■	■	■	■	
VCGT-160401-FN-X25	0.1	■	■	■	■	■	
VCGT-160402-FN-X25	0.2	■	■	■	■	■	
VCGT-160404-FN-X25	0.4	■	■	■	■	■	
VCGT-160408-FN-X25	0.8	■	■	■	■	■	



**VCGT
ENP-X25°**

Art. N°	R	PVD		non revêtu unbeschichtet uncoated	PVD		non revêtu unbeschichtet uncoated
		TiAlN	TiN	K20	HTA	K10	
VCGT-1103005-ENP-X25	0.05	■	■	■			
VCGT-110301-ENP-X25	0.1	■	■	■			
VCGT-110302-ENP-X25	0.2	■	■	■			
VCGT-110304-ENP-X25	0.4	■	■	■			
VCGT-1604005-ENP-X25	0.05	■	■	■			
VCGT-160401-ENP-X25	0.1	■	■	■			
VCGT-160402-ENP-X25	0.2	■	■	■			
VCGT-160404-ENP-X25	0.4	■	■	■			
VCGT-160408-ENP-X25	0.8	■	■	■			



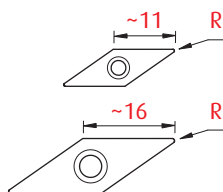
Plaquettes en métal dur VHM-Wendeleplatten Solid carbide inserts

35°

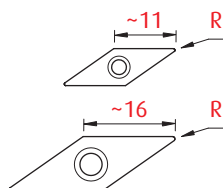
VCMT


**VCMT
EN-XF2**

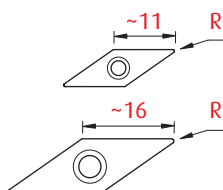
Art. N°	R	PVD			CVD
		Tmax	TAC	HTAC	Ti4
VCMT-110302-EN-XF2	0.2		■	■	
VCMT-110304-EN-XF2	0.4		■	■	
VCMT-160404-EN-XF2	0.4		■	■	


**VCMT
EN-MF**

Art. N°	R	PVD			CVD
		Tmax	TAC	HTAC	Ti4
VCMT-110302-EN-MF	0.2	■			■
VCMT-110304-EN-MF	0.4	■			■
VCMT-160404-EN-MF	0.4	■			■


**VCMT
EN-HF**

Art. N°	R	PVD			CVD
		Tmax	TAC	HTAC	Ti4
VCMT-110304-EN-HF	0.4	■			■
VCMT-110308-EN-HF	0.8	■			■
VCMT-160404-EN-HF	0.4	■			■
VCMT-160408-EN-HF	0.8	■			■



Accessoires Zubehör Accessories

Vis et clés de rechange Ersatzschrauben und Schlüsseln Spare screws and keys	Porte-outils Halter Holders	Vis Schrauben Screw	Clé Schlüssel Key	Option	Serrage Torque
	Series SC...-06 Series SD...-07 Series SV...-11	V-M2.5X7.8-T8 	C-T8 	SET-NM-TX15	1.3 Nm
	Series SC...-09 Series SD...-11 Series SV...-16	V-M4X9-T15-ISO 	C-T15 	SET-NM-TX8	3 Nm

Recommandation de serrage
Drehmoment Empfehlung
Clamping recommendation



SET-NM-TX15
SET-NM-TX8



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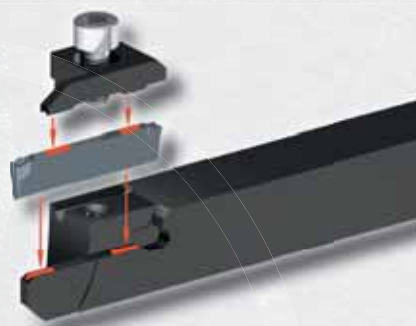
Very rigid clamping system!

H

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

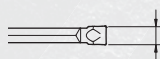
HX

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



CUT 16

=

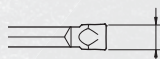


1.6 mm

Ø max 20 mm

CUT 22

=

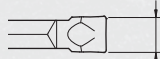


2.2 mm

Ø max 42 mm

CUT 31

=



3.1 mm

Ø max 65 mm



U

P

T

G

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Nuances Sorten Grades

TiALN

revêtement PVD
PVD Beschichtung
PVD coating

- pour l'usinage des aciers, aciers inoxydables et alliages de titane
- 1^{er} choix pour les avances faibles à modérées

- für die Bearbeitung von Stahl, rostfreiem Stahl und Titanlegierungen
- beste 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^{er} 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
- bestens geeignet 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 moyenne à faible
- 1^{er} 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
- für die Bearbeitung in unterbrochenen Schnitte bestens geeignet

- 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

- 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 bestens geeignet
- für unterbrochene Schnitte ungeeignet

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

AS

revêtement PVD
PVD Beschichtung
PVD coating

- nuance pour métaux non ferreux
- très faible coefficient de frottement
- 1^{er} choix pour l'usinage des aluminiums jusqu'à 5% Si, des cuivres et titanes faiblement alliés

- Sorte für Nichteisenmetalle
- sehr geringer Reibwert
- für die Bearbeitung von Aluminium bis 5% Si, Kupfer und niedriglegiertem Titan bestens geeignet

- grade for non-ferrous materials
- very low friction ratio
- first choice for Aluminium up to 5% Si, copper and low alloyed titanium

Géométries de coupe Spanformgeometrie Cutting geometries

UN

**UR
UL**

- Géométrie positive universelle, bonne maîtrise du copeau
- Allgemeine Geometrie, sehr gute Spankontrolle
- All-round insert with efficient chip control



PN

PR

- Géométrie légèrement positive pour les aciers, aciers au carbone, aciers alliés
- Leicht positive Geometrie für Stahl, Kohlenstoffstahl, legiertem Stahl
- Slightly positive geometry for steel, carbon steel, alloyed steel



TN

- Géométrie négative pour de fortes avances dans des conditions de rigidité favorable
- Negative Geometrie für hohe Vorschübe in guten Stabilitätsfällen
- Negative geometry for high feed rate in case of good stability

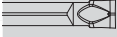


GN

- Géométrie universelle pour fonder-tourner, peut également être utilisée en tronçonnage
- Allgemeine Geometrie zum einsteckenlangdrehen, kann auch zum abstechen verwendet werden
- All-round insert for grooving and turning, can also be used for parting off



Paramètres de coupe indicatifs Empfohlene Schnittwerte Standard machining data

CUT 16			Acier Stahl Steel						Inox Rostfreistahl Stainless steel	
			Acier de décolletage Automatenstahl Free-cutting steel		Acier faiblement allié Leicht legierter Stahl Low alloyed steel		Acier fortement allié Legierter Stahl High alloyed steel		Austénitique et martensitique Austenitisch und martensitisch 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 Standard Vorschub 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
		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
		AS								
	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
Avance modérée Niedriger Vorschub Low feed rate	CUT16-UN-000 	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
		AS								
	CUT16-UL/R-800 	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
		AS								
	CUT16-UL/R-1500 	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
		AS								

** arête de coupe vive

** scharfe Schneidkante

** sharp cutting edge

CUT 16

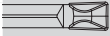
(N) Alliages d'aluminium et non ferreux Aluminium- und Nichteisenlegierungen Aluminium and non-ferrous alloys								(S) Titane Titan Titanium			
Aluminium		Alu silicium max. 5% Aluminiumsilicium max. 5% Aluminium silicon max. 5%		Cuivre Kupfer Copper		Laiton & bronze Messing & Bronze Brass & bronze		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				
100-300	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

★★★★★

★★★★★

★★★

Paramètres de coupe indicatifs Empfohlene Schnittwerte Standard machining data

CUT 22			Acier Stahl Steel						Inox Rostfreistahl Stainless steel	
			Acier de décolletage Automatenstahl Free-cutting steel		Acier faiblement allié Leicht legierter Stahl Low alloyed steel		Acier fortement allié Legierter Stahl High alloyed steel		Austénitique et martensitique Austenitisch und martensitisch 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 Standard Vorschub Standard feed rate	CUT22-UN-002 	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
		AS								
	CUT22-PN-002 	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		
	CUT22-PR-002 	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
	CUT22-TN-002 	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		
	CUT22-GN-002 *** 	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
		AS								
Avance modérée Niedriger Vorschub Low feed rate	CUT22-UN-000 	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
		AS								
	CUT22-UL/R-800 	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
		AS								
	CUT22-UL/R-802 	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
		AS								
	CUT22-UL/R-1500 	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
		AS								

* premier choix en cas de coupe interrompue

** arête de coupe vive
*** géométrie fonçage-tournage (évent. tronçonnage)

* beste Basis für unterbrochene Schnitte

** scharfe Schneidkante
*** Geometrie zum einstecken und drehen (event. abstechen)

* first choice for interrupted cut

** sharp cutting edge
*** geometry for grooving and turning (event. parting off)

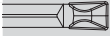
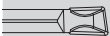
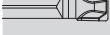
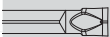
(N) Alliages d'aluminium et non ferreux Aluminium- und Nichteisenlegierungen Aluminium and non-ferrous alloys								(S) Titane Titan Titanium			
Aluminium		Alu silicium max. 5% Aluminiumsilicium max. 5% Aluminium silicon max. 5%		Cuivre Kupfer Copper		Laiton & bronze Messing & Bronze Brass & bronze		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				
						150-300	0.03-0.10				
						150-300	0.05-0.2				
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

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Paramètres de coupe indicatifs Empfohlene Schnittwerte Standard machining data

CUT 31			Acier Stahl Steel						Inox Rostfreistahl Stainless steel	
			Acier de décolletage Automatenstahl Free-cutting steel		Acier faiblement allié Leicht legierter Stahl Low alloyed steel		Acier fortement allié Legierter Stahl High alloyed steel		Austénitique et martensitique Austenitisch und martensitisch 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 Standard Vorschub Standard feed rate	CUT31-UN-002 	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
		AS								
	CUT31-PN-002 	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		
	CUT31-PR-802 	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
	CUT31-TN-002 	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		
	CUT31-GN-002 *** 	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
		AS								
Avance modérée Niedriger Vorschub Low feed rate	CUT31-UN-000 	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
		AS								
	CUT31-UL/R-800 	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
		AS								
	CUT31-UL/R-802 	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
		AS								
	CUT31-UL/R-1500 	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
		AS								

* premier choix en cas de coupe interrompue

** arête de coupe vive
*** géométrie fonçage-tournage (évent. tronçonnage)

* beste Basis für unterbrochene Schnitte

** scharfe Schneidkante
*** Geometrie zum einstechen und drehen (event. abstechen)

* first choice for interrupted cut

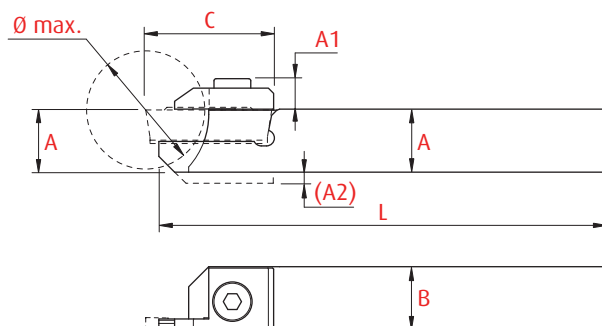
** sharp cutting edge
*** geometry for grooving and turning (event. parting off)

(N) Alliages d'aluminium et non ferreux Aluminium- und Nichteisenlegierungen Aluminium and non-ferrous alloys								(S) Titane Titan Titanium			
Aluminium		Alu silicium max. 5% Aluminiumsilicium max. 5% Aluminium silicon max. 5%		Cuivre Kupfer Copper		Laiton & bronze Messing & Bronze 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				
						150-300	0.03-0.10				
						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

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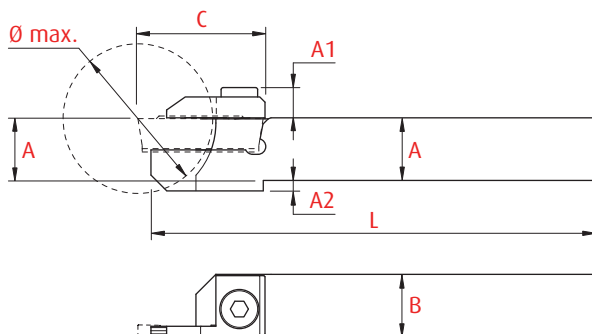


Art. N° L	Art. N° R	Plaquette WSP Insert	A x B x L	Ø max.	A1	C
CUT16-H0810L-N	CUT16-H0810R-N	W 1.6 mm Type CUT16	8 x 10 x 115 (A2=2)	16	6.2	19.5
CUT16-H1010L-N	CUT16-H1010R-N		10 x 10 x 115	16	6.2	19.5
CUT16-H1212L-N	CUT16-H1212R-N		12 x 12 x 130	16	6.2	19.5
CUT16-H1212L-90-N	CUT16-H1212R-90-N		12 x 12 x 90	16	6.2	19.5
CUT16-H127127L-N	CUT16-H127127R-N		12.7 x 12.7 x 130	16	6.2	19.5
CUT16-H1616L-N	CUT16-H1616R-N		16 x 16 x 130	16	6.2	19.5
CUT16-H2020L-N	CUT16-H2020R-N		20 x 20 x 120	16	6.2	19.5
CUT22-H1012L-N	CUT22-H1012R-N	W 2.2 mm Type CUT22	10 x 12 x 115	20	6.4	24
CUT22-H1212L-N	CUT22-H1212R-N		12 x 12 x 130	20	6.4	24
CUT22-H1212L-90-N	CUT22-H1212R-90-N		12 x 12 x 90	20	6.4	24
CUT22-H127127L-N	CUT22-H127127R-N		12.7 x 12.7 x 130	20	6.4	24
CUT22-H1616L-N	CUT22-H1616R-N		16 x 16 x 130	20	6.4	24
CUT22-H2020L-N	CUT22-H2020R-N		20 x 20 x 120	20	6.4	24
CUT31-H1616L-N	CUT31-H1616R-N	W 3.1 mm Type CUT31	16 x 16 x 130	34	7.8	35
CUT31-H2020L-N	CUT31-H2020R-N		20 x 20 x 120	34	7.8	35
CUT31-H2525L-N	CUT31-H2525R-N		25 x 25 x 140	34	7.8	35

Pièces de rechange Ersatzteile Spare parts	Art. N° L	Art. N° R	Art. N°	Serrage Anzug Torque
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

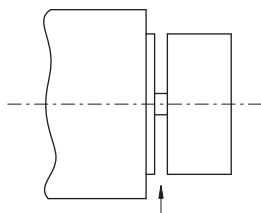
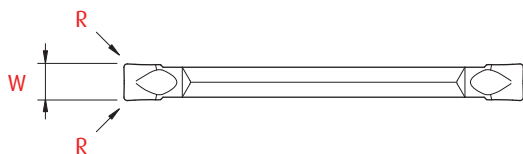
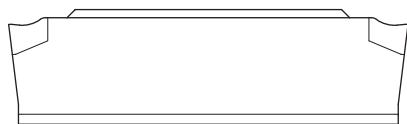
Porte-outils
Halter
Holders

Ø max 42 mm – **HX Series**



Art. N° L	Art. N° R	Plaquette WSP Insert	A x B x L	Ø max.	A1	C	A2
CUT16-H1012LX-N	CUT16-H1012RX-N	W 1.6 mm Type CUT16	10 x 12 x 115	20	6.2	21	2
CUT16-H1212LX-N	CUT16-H1212RX-N		12 x 12 x 130	20	6.2	21	-
CUT16-H1212LX-90-N	CUT16-H1212RX-90-N		12 x 12 x 90	20	6.2	21	-
CUT16-H127127LX-N	CUT16-H127127RX-N		12.7 x 12.7 x 130	20	6.2	21	-
CUT16-H1616LX-N	CUT16-H1616RX-N		16 x 16 x 130	20	6.2	21	-
CUT16-H2020LX-N	CUT16-H2020RX-N		20 x 20 x 120	20	6.2	21	-
CUT22-H1012LX-N	CUT22-H1012RX-N	W 2.2 mm Type CUT22	10 x 12 x 115	26	6.4	25	4
CUT22-H1212LX-N	CUT22-H1212RX-N		12 x 12 x 130	26	6.4	25	2
CUT22-H1212LX-90-N	CUT22-H1212RX-90-N		12 x 12 x 90	26	6.4	25	2
CUT22-H127127LX-N	CUT22-H127127RX-N		12.7 x 12.7 x 130	26	6.4	25	-
CUT22-H1616LX-N	CUT22-H1616RX-N		16 x 16 x 130	26	6.4	25	-
CUT22-H2020LX-N	CUT22-H2020RX-N		20 x 20 x 120	26	6.4	25	-
CUT22-H2525LX-N	CUT22-H2525RX-N		25 x 25 x 140	26	6.4	25	-
CUT31-H1616LX-N	CUT31-H1616RX-N	W 3.1 mm Type CUT31	16 x 16 x 120	42	7.8	37	4
CUT31-H2020LX-N	CUT31-H2020RX-N		20 x 20 x 120	42	7.8	37	-
CUT31-H2525LX-N	CUT31-H2525RX-N		25 x 25 x 140	42	7.8	37	-

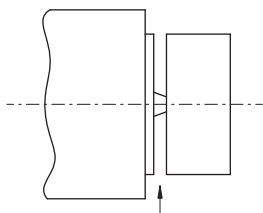
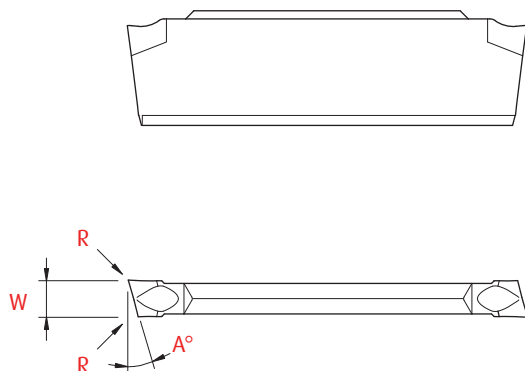
Pièces de rechange Ersatzteile Spare parts	Art. N° L	Art. N° R	Art. N°	Serrage Anzug Torque
CUT 16	CUT16LX-SET	CUT16RX-SET	V-M4X10-BN7	3.5 Nm
CUT 22	CUT22LX-SET	CUT22RX-SET	V-M4X10-BN7	3.5 Nm
CUT 31	CUT31LX-SET	CUT31RX-SET	V-M5X10-BN7	4.5 Nm



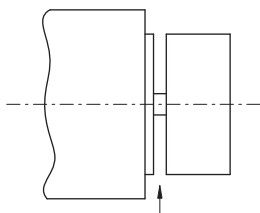
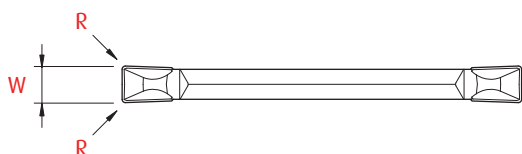
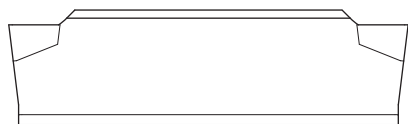
Type	Art. N°						W ±0,05	R
	UN	TiAlN	T _{max}	Z _{max}	HTA	AS		
CUT16	CUT16-UN-000	■			■	■	1.6	0.02
	CUT16-UN-001	■	■	■	■	■	1.6	0.10
CUT22	CUT22-UN-000	■			■	■	2.2	0.02
	CUT22-UN-002	■	■	■	■	■	2.2	0.20
CUT31	CUT31-UN-000	■			■	■	3.1	0.02
	CUT31-UN-002	■	■	■	■	■	3.1	0.20

Plaquettes de troncçonnage
Abstechwendeplatten
Cut off inserts

UL-UR Series



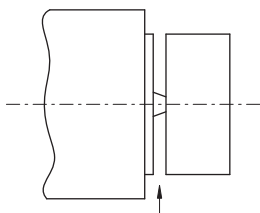
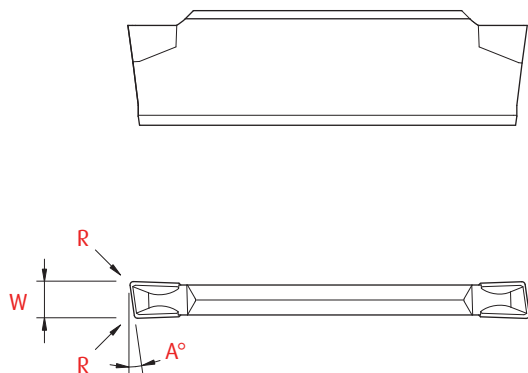
Type	Art. N°				Art. N°				W ±0,05	A	R
	UL	TIALN	HTA	AS	UR	TIALN	HTA	AS			
CUT16	CUT16-UL-800	■	■	■	CUT16-UR-800	■	■	■	1.6	8°	0.02
	CUT16-UL-1500	■	■	■	CUT16-UR-1500	■	■	■	1.6	15°	0.02
CUT22	CUT22-UL-800	■	■	■	CUT22-UR-800	■	■	■	2.2	8°	0.02
	CUT22-UL-802	■	■	■	CUT22-UR-802	■	■	■	2.2	8°	0.20
	CUT22-UL-1500	■	■	■	CUT22-UR-1500	■	■	■	2.2	15°	0.02
CUT31	CUT31-UL-800	■	■	■	CUT31-UR-800	■	■	■	3.1	8°	0.02
	CUT31-UL-802	■	■	■	CUT31-UR-802	■	■	■	3.1	8°	0.20
	CUT31-UL-1500	■	■	■	CUT31-UR-1500	■	■	■	3.1	15°	0.02



Type	Art. N° PN		TiAlN Tmax	W ±0.05	R
CUT22	CUT22-PN-002	■ ■	2.2	0.20	
CUT31	CUT31-PN-002	■ ■	3.1	0.20	

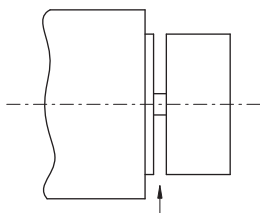
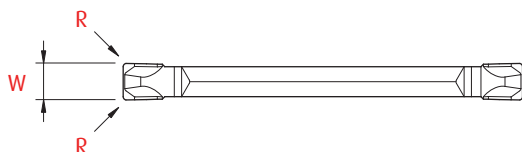
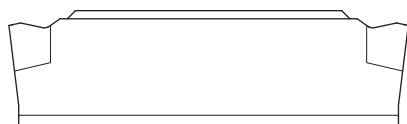
Plaquettes de tronçonnage
Abstechwendeplatten
Cut off inserts

PR Series



Type	Art. N° PR		TiAlN Tmax	W ±0.05	A	R
CUT16	CUT16-PR-801	■ ■	■ ■	1.6	8°	0.10
CUT22	CUT22-PR-802	■ ■	■ ■	2.2	8°	0.20
CUT31	CUT31-PR-802	■ ■	■ ■	3.1	8°	0.20

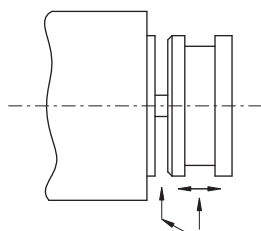
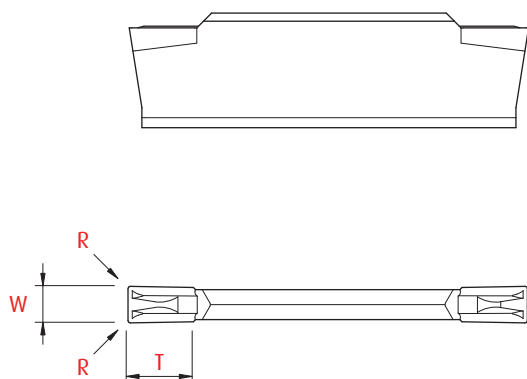
Negative cut off



Type	Art. N°		TiAlN	Tmax	Zmax	W ±0,05	R
	TN						
CUT22	CUT22-TN-002		■	■	■	2.2	0.20
CUT31	CUT31-TN-002		■	■	■	3.1	0.20

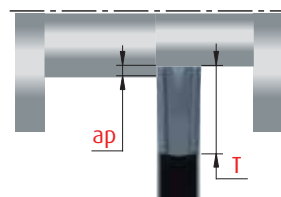
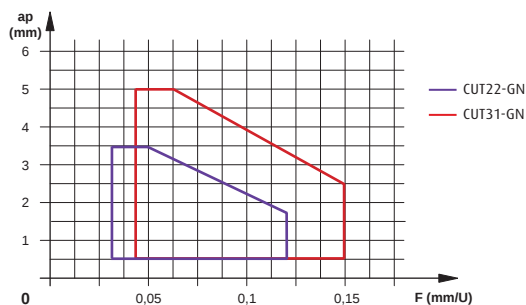
Plaquettes de fonçage, tournage et tronçonnage
WSP zum einstecken, drehen und abstechen
Solid carbide inserts for grooving, turning and cut off

GN Series



Type	Art. N° GN		TiAlN	Tmax	AS	W ±0,05	T	R
CUT22	CUT22-GN-002		■	■	■	2.2	3.5	0.15
CUT31	CUT31-GN-002		■	■	■	3.1	5.0	0.15

Conseils d'utilisation pour plaquettes type GN
Anwendungsempfehlungen für GN-Wendepplatten
Application recommendations for GN inserts



ap max = T dans matière à bonne usinabilité
 ap max = T in Werkstoffe mit gute Zerspanbarkeit
 ap max = T in material with good machinability

ALFA-SWISS



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6	4	4	X	-	2.0	-	R15	-	TiAlN				
					Dimension Abmessung Dimension		Rayon Radius Radius		Nuance Sorte Grade				
			Géométrie de coupe Schneidgeometrie Cutting geometry	brise-copeaux Spanbrecher chip breaker		particularités Sondereigenschaften special features							
Géométrie d'usinage Bearbeitungsgeometrie Machining geometry													
1		2		3		4		5		6		7	
Gamme de produit Produktserie Product series			définit la compatibilité des plaquettes avec le porte-outil bestimmt die WSP und Halter Kompatibilität shows the inset and holder compatibility										
L = 3, 5			(chiffre impair / ungerade Zahl / uneven number)										
R = 4, 6			(chiffre pair / gerade Zahl / even number)										
SERIES			L		R		SERIES			L		R	
Tournage et gorges			630		640		Tronçonnage Abstechen			650		660	
Drehen und Einstechen													
Turning and grooving													
W max = 3 mm L max = 8 mm							W max = 2.5 mm L max = 11 mm						

Système de serrage à denture avec 2 vis de fixation
Spannsystem mit Verzahnung und 2 Schrauben
Teeth clamping system with 2 screws

Nuances Sorten Grades

TiALN

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

- excellente nuance universelle
- 1^{er} choix pour l'usinage des aciers, aciers inoxydables et alliages de titane
- très bonne résistance à la température

- beste Universalsorte
- für die Bearbeitung von Stahl, rostfreiem Stahl und Titanlegierungen bestens geeignet
- sehr gute Warmfestigkeit

- best universal grade
- first choice for steel, stainless steel and titanium alloys machining
- very good heat resistance

N (μK20)

non revêtu
unbeschichtet
uncoated

- nuance micro-grain tenace
- supporte les coupes interrompues et autres conditions d'usinage défavorables

- zähe Feinkornsorte
- für unterbrochene Schnitte und andere ungünstige Bearbeitungsbedingungen geeignet

- tough micro-grain grade
- suitable for interrupted cut and other unfavourable machining conditions

HTA

μK10 + revêtement PVD
μK10 + PVD Beschichtung
μK10 + PVD coating

- nuance très résistante à l'usure
- pour l'usinage en finition dans des conditions favorables des aciers, aciers inoxydables et alliages de titane

- sehr verschleissfeste Sorte
- für die Feinbearbeitung von Stahl, rostfreiem Stahl und Titanlegierungen bei guten Bearbeitungsbedingungen

- very wear resistant grade
- for light machining of steel, stainless steel and titanium alloys under favourable machining conditions

HN (μK10)

non revêtu
unbeschichtet
uncoated

- nuance micro-grain très résistante à l'usure
- recommandé pour l'usinage du titane faiblement allié
- déconseillé en cas de coupe interrompue et autres conditions d'usinage défavorables

- verschleissfeste Feinkornsorte
- empfehlenswert für die Bearbeitung von niedrig legiertem Titan
- für unterbrochene Schnitte und andere ungünstige Bearbeitungsbedingungen nicht geeignet

- wear resistant micro-grain grade
- suitable for the machining of low alloyed titanium
- not suitable for interrupted cut and other unfavourable machining conditions

Paramètres de coupe indicatifs Empfohlene Schnittwerte Standard machining data

Matière Werkstoff Material	Tournage Drehen Turning	630/640		Tronçonnage Abstechen Parting off	650/660	
	VC	Prof. de passe Schnitttiefe Depth of cut	Avance Vorschub Feed	VC	Largeur de coupe Abstechbreite Cutting width	Avance Vorschub Feed
	(m/min)	(mm)	(mm/U)	(m/min)	(mm)	(mm/U)
Acier de décolletage Automatenstahl Free-cutting steel	120 - 200	0.05 - 1.0 1.0 - 4.0	0.01 - 0.15 0.05 - 0.25	80 - 150	0.50 - 1.50 1.50 - 2.50	0.01 - 0.08 0.03 - 0.15
Acier Stahl Steel < 600 N/mm ²	80 - 160	0.05 - 1.0 1.0 - 4.0	0.01 - 0.15 0.05 - 0.25	70 - 120	0.50 - 1.50 1.50 - 2.50	0.01 - 0.06 0.03 - 0.12
Acier Stahl Steel < 800 N/mm ²	60 - 120	0.05 - 1.0 1.0 - 4.0	0.01 - 0.10 0.05 - 0.20	60 - 100	0.50 - 1.50 1.50 - 2.50	0.01 - 0.05 0.03 - 0.10
Acier Stahl Steel > 800 N/mm ²	50 - 100	0.05 - 1.0 1.0 - 3.0	0.01 - 0.08 0.05 - 0.15	40 - 80	0.50 - 1.50 1.50 - 2.50	0.01 - 0.04 0.03 - 0.08
Acier inoxydable Rostfreistahl Stainless steel	60 - 120	0.05 - 1.0 1.0 - 3.0	0.01 - 0.08 0.05 - 0.15	60 - 100	0.50 - 1.50 1.50 - 2.50	0.01 - 0.04 0.03 - 0.08
Aluminium Si <12%	200 - 1000	0.05 - 1.0 1.0 - 4.0	0.01 - 0.20 0.05 - 0.40	180 - 400	0.50 - 1.50 1.50 - 2.50	0.01 - 0.10 0.03 - 0.20
Aluminium Si >12%	180 - 800	0.05 - 1.0 1.0 - 4.0	0.01 - 0.20 0.05 - 0.40	150 - 300	0.50 - 1.50 1.50 - 2.50	0.01 - 0.10 0.03 - 0.20
Titane Titan Titanium	30 - 70	0.05 - 1.0 1.0 - 4.0	0.01 - 0.08 0.05 - 0.15	30 - 50	0.50 - 1.50 1.50 - 2.50	0.01 - 0.03 0.03 - 0.06
Cuivre, laiton, bronze Kupfer, Messing, Bronze Copper, brass, bronze	100 - 500	0.05 - 1.0 1.0 - 4.0	0.01 - 0.20 0.05 - 0.35	100 - 300	0.50 - 1.50 1.50 - 2.50	0.01 - 0.10 0.03 - 0.20

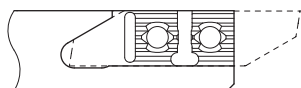
Porte-outils

Halter

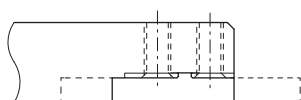
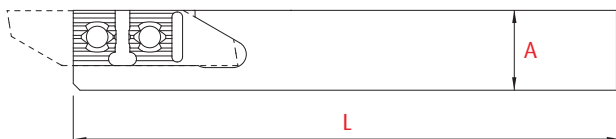
Holders

630 / 640

L



R

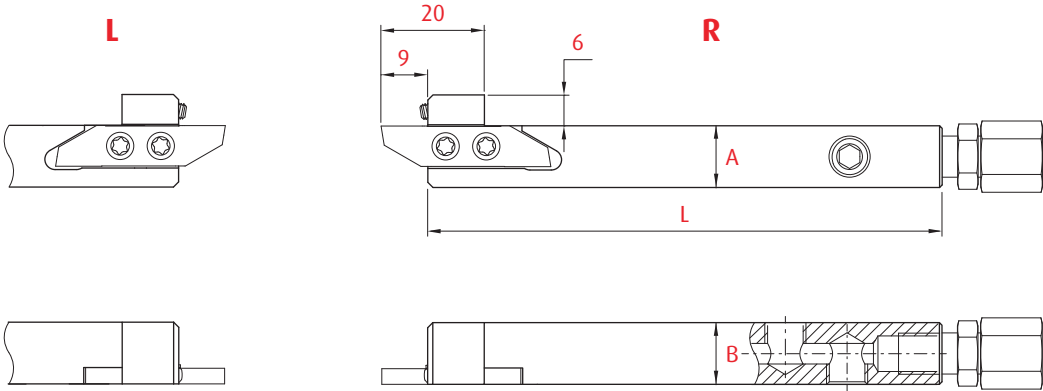


Art. N° L	Art. N° R	A x B	L
630-8-N	640-8-N	8 x 8	115
630-10-N	640-10-N	10 x 10	115
630-10-50-N	640-10-50-N	10 x 10	50
630-12-N	640-12-N	12 x 12	130
630-12-90-N	640-12-90-N	12 x 12	90
630-12.7-N	640-12.7-N	12.7 x 12.7	130
630-16-N	640-16-N	16 x 16	130
630-16-75-N	640-16-75-N	16 x 16	75
630-20-N	640-20-N	20 x 20	120

Chaque support est livré avec vis et clé.
 Jeder Halter wird mit Spannschraube(n) und Schlüssel geliefert.
 Screw(s) and key are included with each tool holder.

Porte-outils avec arrosage intégré
Halter mit integrierter Kühlmittelzufuhr
Holders with integrated coolant supply

630-JET / 640-JET



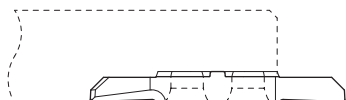
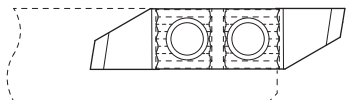
Art. N° L	Art. N° R	A x B	L
630-1012-JET-N	640-1012-JET-N	10 x 12	100
630-12-JET-N	640-12-JET-N	12 x 12	100
630-12.7-JET-N	640-12.7-JET-N	12.7 x 12.7	100
630-16-JET-N	640-16-JET-N	16 x 16	100
630-20-JET-N	640-20-JET-N	20 x 20	100

Chaque support est livré avec vis, clé, raccord droit et buse d'arrosage Ø 1.5 mm.
Jeder Halter wird mit Spannschraube(n), Schlüssel, gerader Kühlmittelanschluss und Kühlmitteldüse Ø 1.5 mm geliefert.
Screw(s), key, straight connector and coolant nozzle Ø 1.5 mm are included with each tool holder.

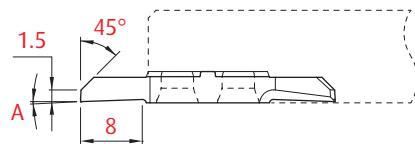
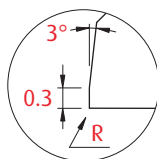
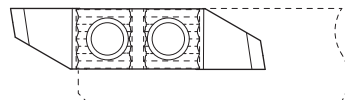
Tourneur avant
Vorwärts drehen
Front turning

632 / 642

L



R

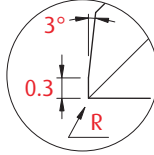
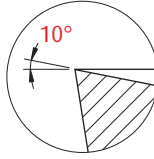
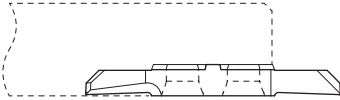
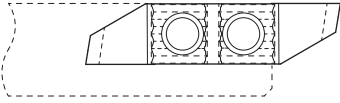


Art. N° L					Art. N° R					A	R
	TiAlN	N (μk20)	HTA	HN (μk10)		TiAlN	N (μk20)	HTA	HN (μk10)		
632	■	■	□	■	642	■	■	□	■	0°	0
-					642-R08	■	■	□	■	0°	0.08
-					642-R15	■	■	□	■	0°	0.15
632-2°	■	■	□	■	642-2°	■	■	□	■	2°	0
-					642-2°-R08	■	■	□	■	2°	0.08
-					642-2°-R15	■	■	□	■	2°	0.15

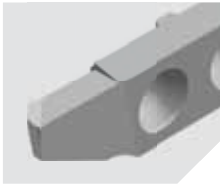
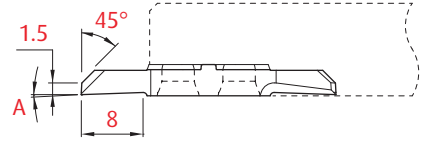
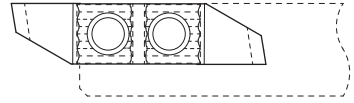
Tourneur avant
Vorwärts drehen
Front turning

632X / 642X

L



R

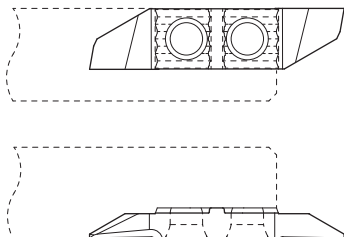


Art. N° L		TiAlN	N (μK20)	HTA	HN (μK10)	Art. N° R		TiAlN	N (μK20)	HTA	HN (μK10)	A	R
632X10		■	■	□	■	642X10		■	■	□	■	0°	0
-						642X10-R08		■	■	□	■	0°	0.08
-						642X10-R15		■	■	□	■	0°	0.15
632X10-2°		■	■	□	■	642X10-2°		■	■	□	■	2°	0
-						642X10-2°-R08		■	■	□	■	2°	0.08
-						642X10-2°-R15		■	■	□	■	2°	0.15

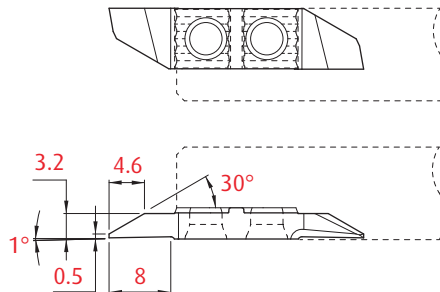
Tourneur multifonction
Mehrweck drehen
Multifunction turning

632S / 642S
633S / 643S

L



R



Art. N°	
L	
632S05	

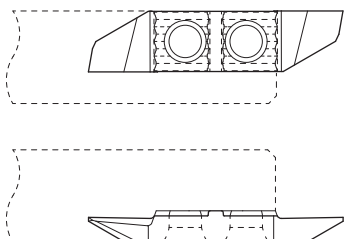
TiAlN	N (μK20)	HTA	HN (μK10)
■	■	□	■

Art. N°	
R	
642S05	

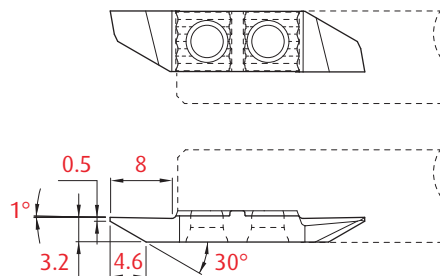
TiAlN	N (μK20)	HTA	HN (μK10)
■	■	□	■

Tourneur avant
Vorwärts drehen
Front turning

L



R



Art. N°	
L	
633S05	

TiAlN	N (μK20)	HTA	HN (μK10)
■	■	□	■

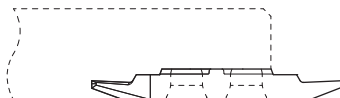
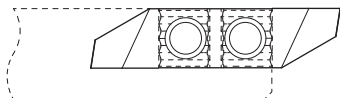
Art. N°	
R	
643S05	

TiAlN	N (μK20)	HTA	HN (μK10)
■	■	□	■

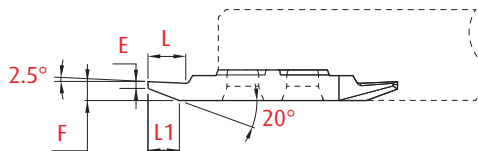
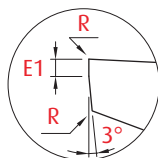
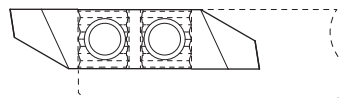
Tourneur arrière
Rückwärts drehen
Back turning

■ = disponible / verfügbar / available
□ = selon disponibilité du stock / je nach Lagerverfügbarkeit / depending the stock availability

L



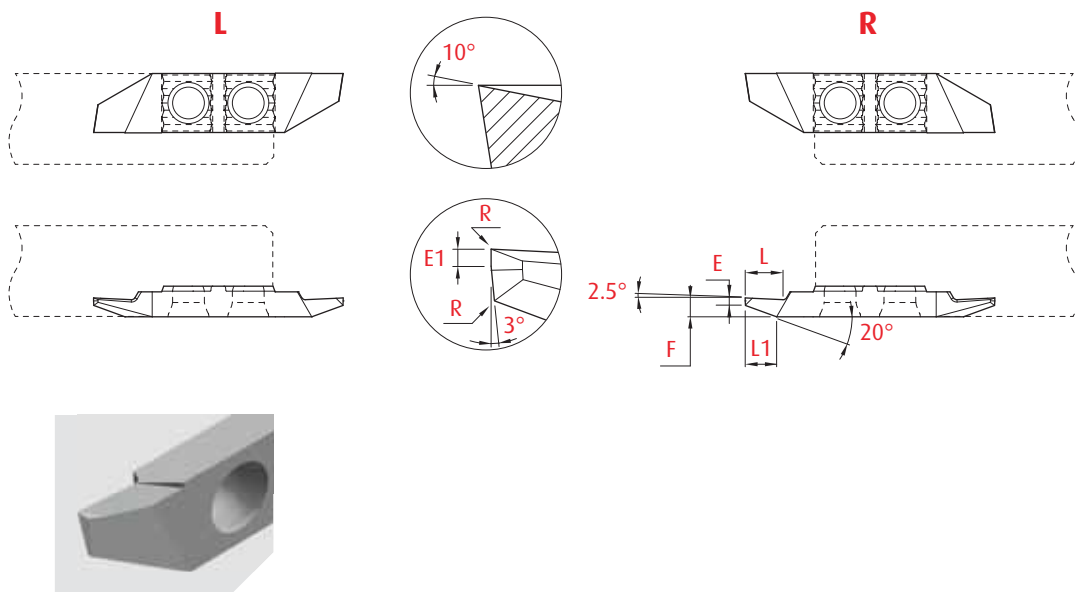
R



Art. N° L				Art. N° R				E	E1	L	L1	F	R
TiAlN	N (μK20)	HTA	HN (μK10)	TiAlN	N (μK20)	HTA	HN (μK10)						
633-0.5	■	■	□	■	643-0.5	■	■	0.5	0.25	3	2.8	1.5	0
-				■	643-0.5-R08	■	■	0.5	0.25	3	2.8	1.5	0.08
-				■	643-0.8	■	■	0.8	0.40	4.5	3.3	2.0	0
-				■	643-0.8-R08	■	■	0.8	0.40	4.5	3.3	2.0	0.08
-				■	643-1.0	■	■	1.0	0.40	5	4.2	2.5	0
-				■	643-1.0-R08	■	■	1.0	0.40	5	4.2	2.5	0.08
-				■	643-1.5	■	■	1.5	0.50	6	4.2	3.0	0
-				■	643-1.5-R08	■	■	1.5	0.50	6	4.2	3.0	0.08

Tourneur arrière
Rückwärts drehen
Back turning

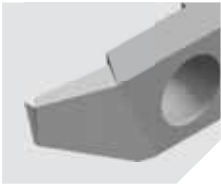
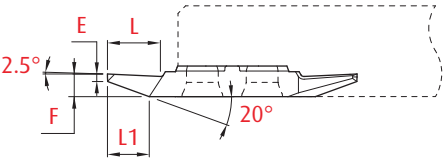
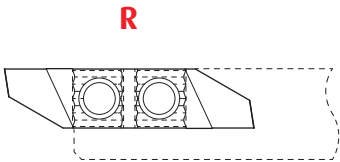
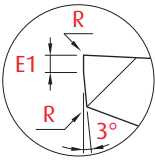
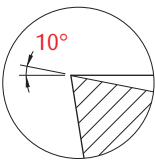
633X / 643X



Art. N° L	TiAlN N (μK20)	HTA	HN (μK10)	Art. N° R	TiAlN N (μK20)	HTA	HN (μK10)	E	E1	L	L1	F	R
633X10-0.5	■	■	□	643X10-0.5	■	■	□	0.5	0.25	3	2.8	1.5	0
-				643X10-0.5-R08	■	■	□	0.5	0.25	3	2.8	1.5	0.08
-				643X10-0.8	■	■	□	0.8	0.40	4.5	3.3	2.0	0
-				643X10-0.8-R08	■	■	□	0.8	0.40	4.5	3.3	2.0	0.08
-				643X10-1.0	■	■	□	1.0	0.40	5	4.2	2.5	0
-				643X10-1.0-R08	■	■	□	1.0	0.40	5	4.2	2.5	0.08
-				643X10-1.5	■	■	□	1.5	0.50	6	4.2	3.0	0
-				643X10-1.5-R08	■	■	□	1.5	0.50	6	4.2	3.0	0.08

Tourneur arrière
Rückwärts drehen
Back turning

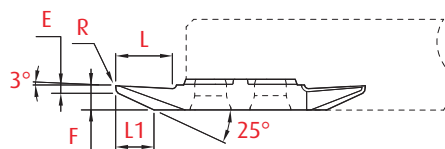
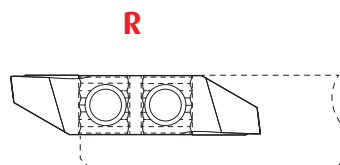
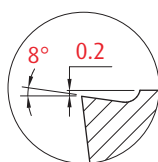
643XS



Art. N° R					E	E1	L	L1	F	R
	TiAlN	N (µK20)	HTA	HN (µK10)						
643X10S-1.0	■	■	□	■	1.0	0.4	7	5.5	3.0	0
643X10S-1.0-R08	■	■	□	■	1.0	0.4	7	5.5	3.0	0.08

Tourneur arrière
Rückwärts drehen
Back turning

643VX8

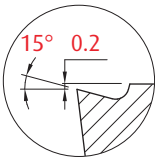
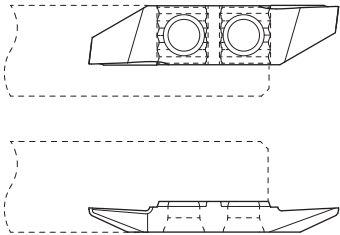


Art. N° R					E	L	L1	F	R
	TiAlN	N (μK20)	HTA	HN (μK10)					
643VX8	■	■	□	■	~1	7.5	5.0	3.2	0
643VX8-R08	■	■	□	■	~1	7.5	5.0	3.2	0.08

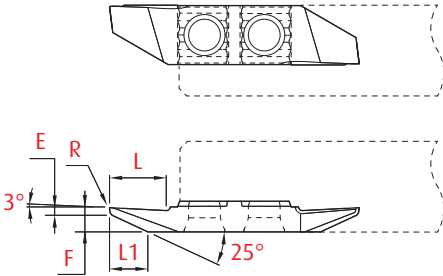
Tourneur arrière
Rückwärts drehen
Back turning

633VX15 / 643VX15

L



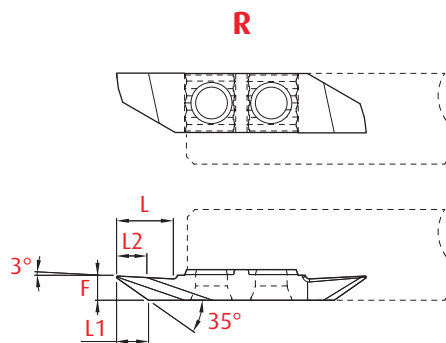
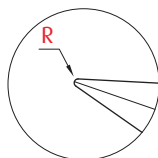
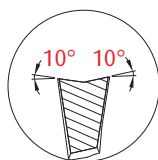
R



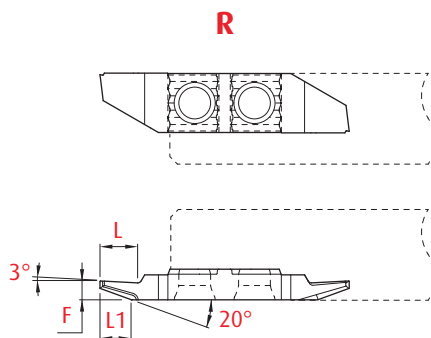
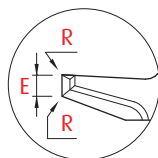
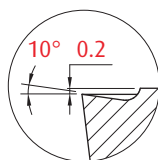
Art. N°						Art. N°						E	L	L1	F	R
L		TiAlN	N (µK20)	HTA	HN (µK10)	R		TiAlN	N (µK20)	HTA	HN (µK10)					
633VX15	■ ■ □ ■	■	■	□	■	643VX15	■ ■ □ ■	■	■	□	■	0.5	7.5	5.2	3.2	0
-						643VX15-R08	■ ■ □ ■	■	■	□	■	0.5	7.5	5.2	3.2	0.08

Tourneur arrière
Rückwärts drehen
Back turning

643VUX

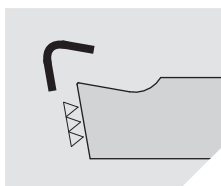


Art. N° R	TiAlN	N (μK20)	HTA	HN (μK10)	L	L1	L2	F	R
643VUX10-R15	■	■	□	■	7.5	4.2	4.0	3.2	0.15
643VUX10-R35	■	■	□	■	7.5	3.8	3.8	3.2	0.35



Pour un meilleur contrôle des copeaux
Für eine bessere Spankontrolle
For a better chip-control

Art. N° R	TIALN N (μK20)	E	L	L1	F	R
643ZX10-1.0	■	1.0	5	4	2.5	0.01
643ZX10-1.0-R08	■	1.0	5	4	2.5	0.08

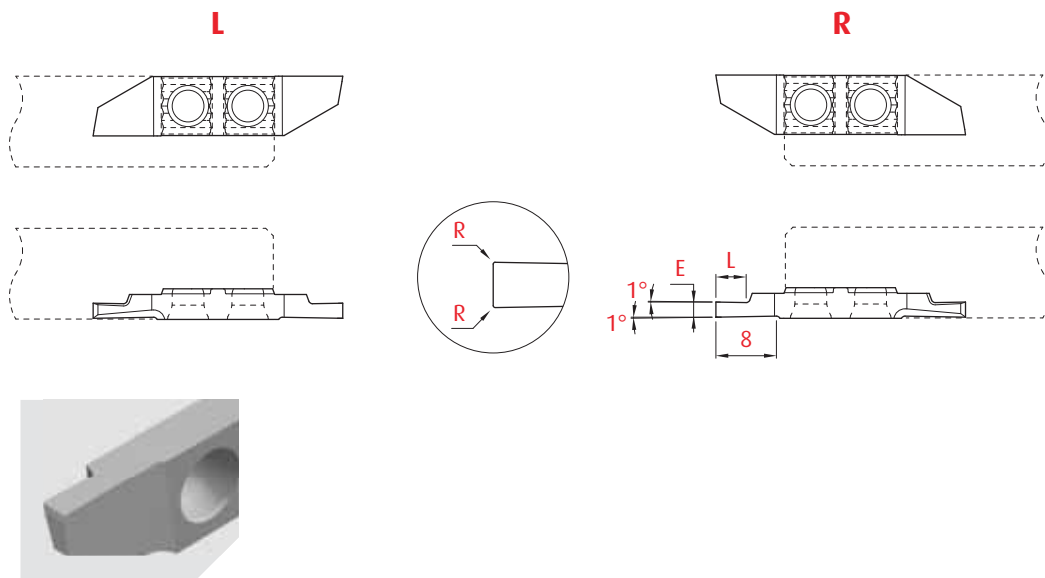


Arête de coupe honée
Gehonte Schneidkante
Honed edge

f min: 0.02 mm/U

Foncer-tourner
Einstechen und drehen
Grooving and turning

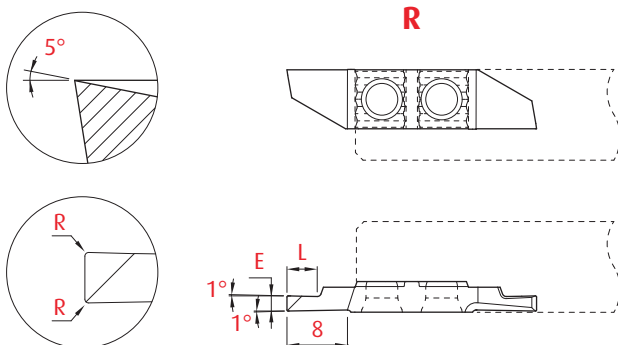
634 / 644



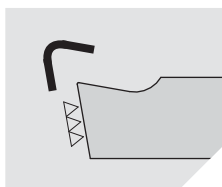
Art. N° L	TiAlN	N (μK20)	HTA	HN (μK10)	Art. N° R	TiAlN	N (μK20)	HTA	HN (μK10)	E	L	R
634-0.5	■	■	□	■	644-0.5	■	■	□	■	0.5	1.5	0
-					644-0.6	■	■	□	■	0.6	1.8	0
-					644-0.75	■	■	□	■	0.75	2	0
634-0.8	■	■	□	■	644-0.8	■	■	□	■	0.8	2	0
-					644-0.9	■	■	□	■	0.9	2.5	0
-					644-0.95	■	■	□	■	0.95	3	0
634-1.0	■	■	□	■	644-1.0	■	■	□	■	1.0	2.5	0
-					644-1.0-R08	■	■	□	■	1.0	2.5	0.08
634-1.2	■	■	□	■	644-1.2	■	■	□	■	1.2	3	0
-					644-1.2-R08	■	■	□	■	1.2	3	0.08
634-1.5	■	■	□	■	644-1.5	■	■	□	■	1.5	3	0
-					644-1.5-R08	■	■	□	■	1.5	3	0.08
-					644-1.5-R15	■	■	□	■	1.5	3	0.15
-					644-1.8	■	■	□	■	1.8	4	0
634-2.0	■	■	□	■	644-2.0	■	■	□	■	2.0	4	0
-					644-2.0-R08	■	■	□	■	2.0	4	0.08
-					644-2.0-R15	■	■	□	■	2.0	4	0.15
634-2.5	■	■	□	■	644-2.5	■	■	□	■	2.5	6	0
-					644-2.5-R08	■	■	□	■	2.5	6	0.08
-					644-2.5-R15	■	■	□	■	2.5	6	0.15
634-3.0	■	■	□	■	644-3.0	■	■	□	■	3	6	0
-					644-3.0-R08	■	■	□	■	3	6	0.08
-					644-3.0-R15	■	■	□	■	3	6	0.15

■ = disponible / verfügbar / available

□ = selon disponibilité du stock / jenach Lagerverfügbarkeit / depending the stock availability



Art. N° R	TiAlN	N (μK20)	HTA	HN (μK10)	E	L	R
644X5-1.5-R08	■	■	□	■	1.5	3	0.08
644X5-2.0-R08	■	■	□	■	2	4	0.08
644X5-2.0-R15	■	■	□	■	2	4	0.15
644X5-2.5-R08	■	■	□	■	2.5	6	0.08
644X5-2.5-R15	■	■	□	■	2.5	6	0.15
644X5-3.0-R08	■	■	□	■	3	6	0.08
644X5-3.0-R15	■	■	□	■	3	6	0.15



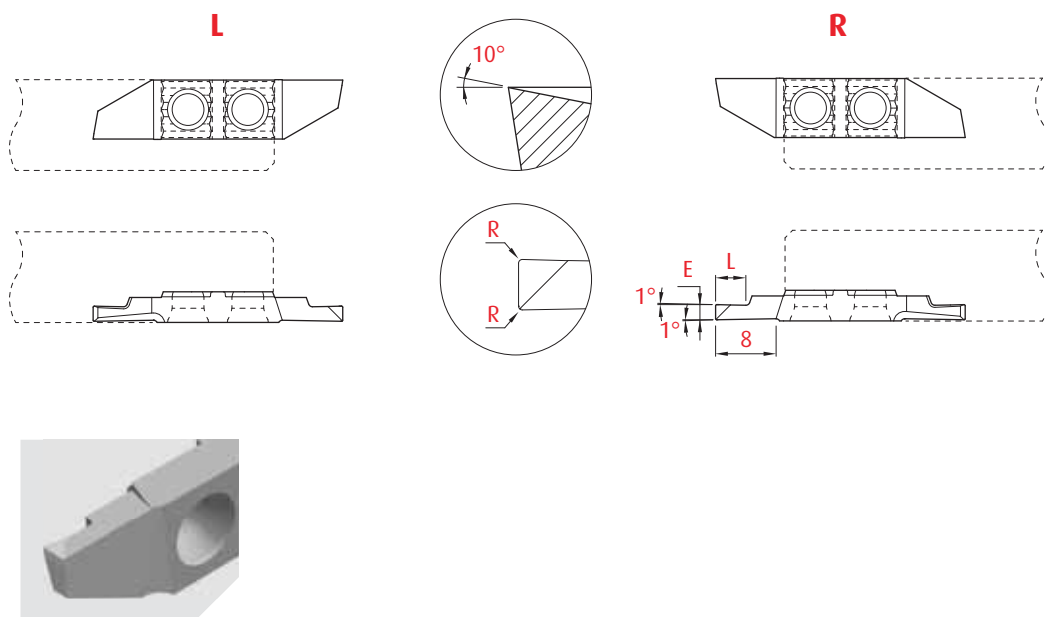
Arête de coupe honée
 Gehonte Schneidkante
 Honed edge

Art. N° R	TiAlN	N (μK20)	HTA	HN (μK10)	E	L	R
644X5-1.5-R08-EP	■	■	□	■	1.5	3	0.08
644X5-2.0-R08-EP	■	■	□	■	2	4	0.08
644X5-2.0-R15-EP	■	■	□	■	2	4	0.15
644X5-2.5-R08-EP	■	■	□	■	2.5	6	0.08
644X5-2.5-R15-EP	■	■	□	■	2.5	6	0.15
644X5-3.0-R08-EP	■	■	□	■	3	6	0.08
644X5-3.0-R15-EP	■	■	□	■	3	6	0.15

f min: 0.02 mm/U

Foncer-tourner
Einstechen und drehen
Grooving and turning

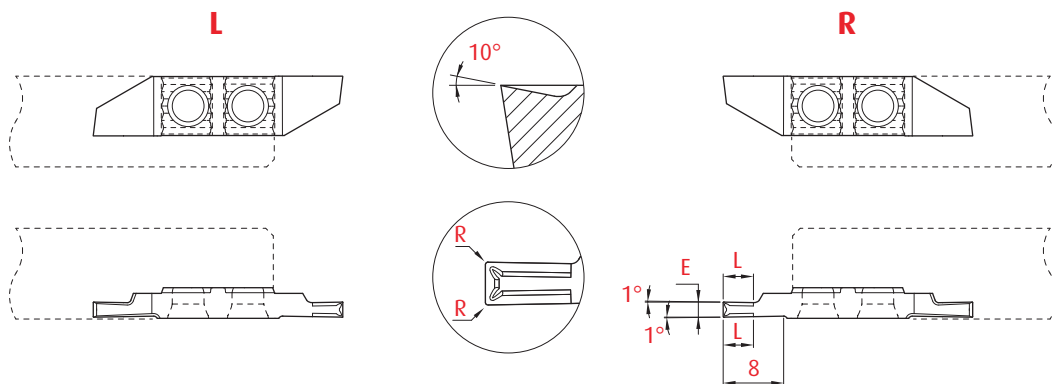
634X10 / 644X10



Art. N° L					Art. N° R					E	L	R
	TiAlN	N (μK20)	HTA	HN (μK10)		TiAlN	N (μK20)	HTA	HN (μK10)			
634X10-0.8	■	■	□	■	644X10-0.8	■	■	□	■	0.8	2	0
634X10-1.0	■	■	□	■	644X10-1.0	■	■	□	■	1.0	2.5	0
634X10-1.0-R08	■	■	□	■	644X10-1.0-R08	■	■	□	■	1.0	2.5	0.08
-					644X10-1.2	■	■	□	■	1.2	3	0
-					644X10-1.2-R08	■	■	□	■	1.2	3	0.08
634X10-1.5	■	■	□	■	644X10-1.5	■	■	□	■	1.5	3	0
634X10-1.5-R08	■	■	□	■	644X10-1.5-R08	■	■	□	■	1.5	3	0.08
634X10-1.5-R15	■	■	□	■	644X10-1.5-R15	■	■	□	■	1.5	3	0.15
-					644X10-1.8	■	■	□	■	1.8	4	0
634X10-2.0	■	■	□	■	644X10-2.0	■	■	□	■	2	4	0
634X10-2.0-R08	■	■	□	■	644X10-2.0-R08	■	■	□	■	2	4	0.08
634X10-2.0-R15	■	■	□	■	644X10-2.0-R15	■	■	□	■	2	4	0.15
634X10-2.5	■	■	□	■	644X10-2.5	■	■	□	■	2.5	6	0
634X10-2.5-R08	■	■	□	■	644X10-2.5-R08	■	■	□	■	2.5	6	0.08
634X10-2.5-R15	■	■	□	■	644X10-2.5-R15	■	■	□	■	2.5	6	0.15
634X10-3.0	■	■	□	■	644X10-3.0	■	■	□	■	3	6	0
634X10-3.0-R08	■	■	□	■	644X10-3.0-R08	■	■	□	■	3	6	0.08
634X10-3.0-R15	■	■	□	■	644X10-3.0-R15	■	■	□	■	3	6	0.15

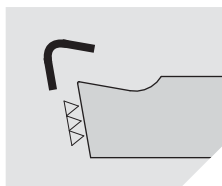
■ = disponible / verfügbar / available

□ = selon disponibilité du stock / je nach Lagerverfügbarkeit / depending the stock availability



Pour un meilleur contrôle des copeaux
Für eine bessere Spankontrolle
For a better chip-control

Art. N° L	TiAlN N (μK20)	Art. N° R	TiAlN N (μK20)	E	L	R
634ZXB10-1.0	■	644ZXB10-1.0	■	1.0	2.5	0.01
634ZXB10-1.5	■	644ZXB10-1.5	■	1.5	4	0.01
634ZXB10-1.5-R08	■	644ZXB10-1.5-R08	■	1.5	4	0.08
634ZXB10-2.0	■	644ZXB10-2.0	■	2.0	4	0.01
634ZXB10-2.0-R08	■	644ZXB10-2.0-R08	■	2.0	4	0.08
634ZXB10-2.0-R15	■	644ZXB10-2.0-R15	■	2.0	4	0.15
634ZXB10-2.5-R08	■	644ZXB10-2.5-R08	■	2.5	5	0.08
634ZXB10-2.5-R15	■	644ZXB10-2.5-R15	■	2.5	5	0.15
634ZXB10-3.0-R08	■	644ZXB10-3.0-R08	■	3.0	6	0.08
634ZXB10-3.0-R15	■	644ZXB10-3.0-R15	■	3.0	6	0.15
634ZXB10-3.0-R35	■	644ZXB10-3.0-R35	■	3.0	6	0.35

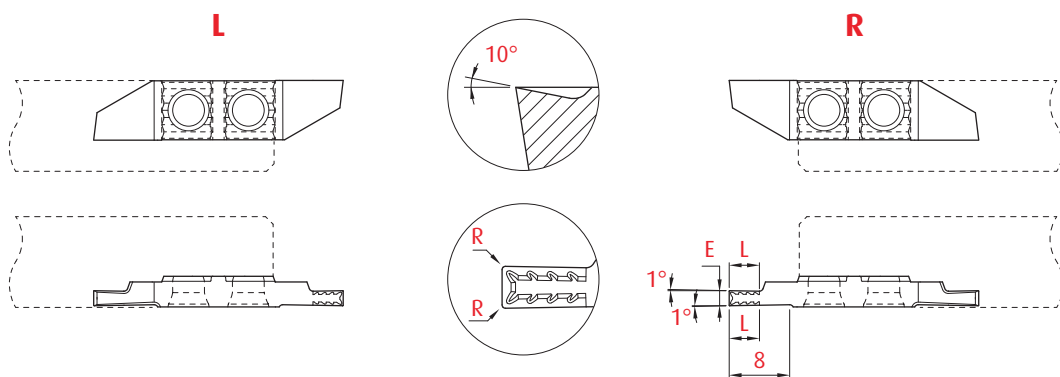


Arête de coupe honée
Gehonte Schneidkante
Honed edge

f min: 0.02 mm/U

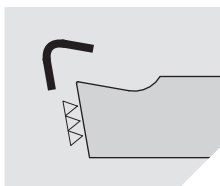
Foncer-tourner Einstechen und drehen Grooving and turning

634ZXT / 644ZXT



Pour un meilleur contrôle des copeaux
Für eine bessere Spankontrolle
For a better chip-control

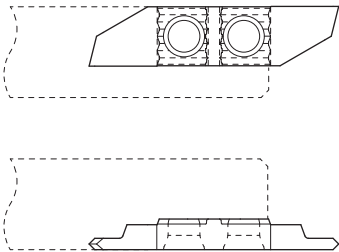
Art. N° L	TiAlN N (μK20)	Art. N° R	TiAlN N (μK20)	E	L	R
634ZXT10-1.0	■	644ZXT10-1.0	■	1.0	2.5	0.01
634ZXT10-1.5	■	644ZXT10-1.5	■	1.5	4	0.01
634ZXT10-1.5-R08	■	644ZXT10-1.5-R08	■	1.5	4	0.08
634ZXT10-2.0	■	644ZXT10-2.0	■	2.0	4	0.01
634ZXT10-2.0-R08	■	644ZXT10-2.0-R08	■	2.0	4	0.08
634ZXT10-2.0-R15	■	644ZXT10-2.0-R15	■	2.0	4	0.15
634ZXT10-2.5-R08	■	644ZXT10-2.5-R08	■	2.5	5	0.08
634ZXT10-2.5-R15	■	644ZXT10-2.5-R15	■	2.5	5	0.15
634ZXT10-3.0-R08	■	644ZXT10-3.0-R08	■	3.0	6	0.08
634ZXT10-3.0-R15	■	644ZXT10-3.0-R15	■	3.0	6	0.15
-		644ZXT10-3.0-R35	■	3.0	6	0.35



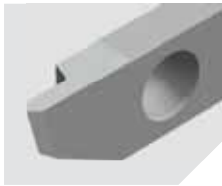
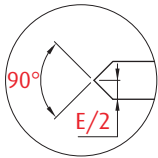
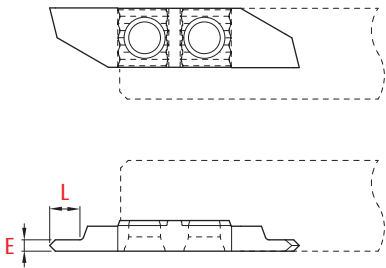
Arête de coupe honée
Gehonte Schneidkante
Honed edge

f min: 0.02 mm/U

L



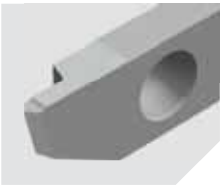
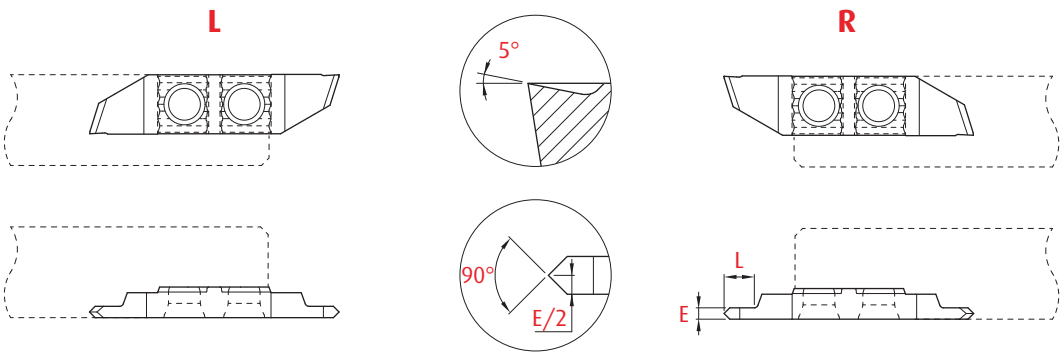
R



Art. N° L					Art. N° R					E	L
TiAlN	N (µK20)	HTA	HN (µK10)		TiAlN	N (µK20)	HTA	HN (µK10)			
■	■	□	■		■	■	□	■		1.5	4
635-90-1.5					645-90-1.5						

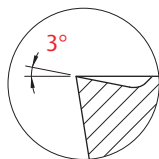
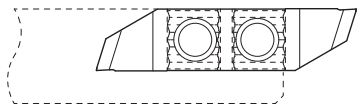
**Chamfreiner
Anfasen
Chamfering**

635X / 645X

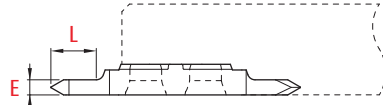
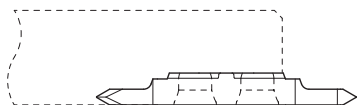
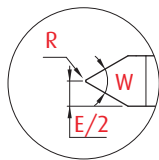
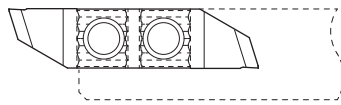


Art. N° L				Art. N° R				E	L
TiAlN	N (µK20)	HTA	HN (µK10)	TiAlN	N (µK20)	HTA	HN (µK10)		
■	■	□	■	■	■	□	■	1.5	4
635X5-90-1.5				645X5-90-1.5					

L



R

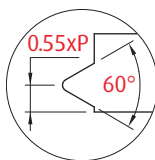
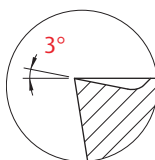
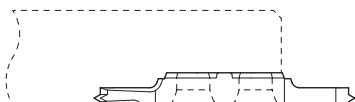
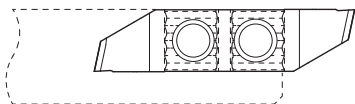
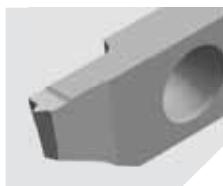
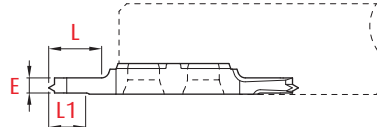
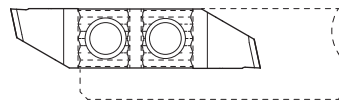


Profil partiel
Teilprofil
Partial profile

Art. N° L					Art. N° R					W	E	L	R
TiAlN	N (µK20)	HTA	HN (µK10)		TiAlN	N (µK20)	HTA	HN (µK10)					
■	■	□	■	636X3-55-1.5	■	■	□	■	646X3-55-1.5	55°	1.5	4	0
■	■	□	■	636X3-55-2.0-R03	■	■	□	■	646X3-55-2.0-R03	55°	2.0	6	0.03
■	■	□	■	636X3-60-1.5	■	■	□	■	646X3-60-1.5	60°	1.5	4	0
■	■	□	■	636X3-60-2.0-R03	■	■	□	■	646X3-60-2.0-R03	60°	2.0	6	0.03
■	■	□	■	636X3-60-2.0-R06	■	■	□	■	646X3-60-2.0-R06	60°	2.0	6	0.06
■	■	□	■	636X3-60-3.0-R06	■	■	□	■	646X3-60-3.0-R06	60°	3.0	8	0.06
■	■	□	■	636X3-60-3.0-R12	■	■	□	■	646X3-60-3.0-R12	60°	3.0	8	0.12

Fileter Gewinde drehen Threading

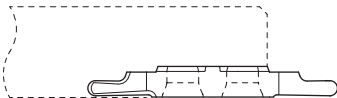
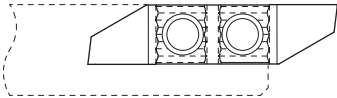
636X-M / 646X-M

L

R


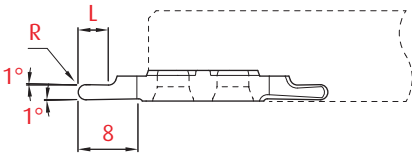
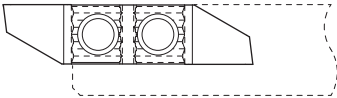
Profil complet métrique
Vollprofil metrisch
Full profile metric

Art. N° L					Art. N° R					E	L	L1	Pas Steigung Pitch P
	TiAlN	N (μK20)	HTA	HN (μK10)		TiAlN	N (μK20)	HTA	HN (μK10)				
636X3-M-0.25	■	■	□	■	646X3-M-0.25	■	■	□	■	1.0	3	3	0.25
636X3-M-0.30	■	■	□	■	646X3-M-0.30	■	■	□	■	1.0	3	3	0.30
636X3-M-0.35	■	■	□	■	646X3-M-0.35	■	■	□	■	1.0	3	3	0.35
636X3-M-0.40	■	■	□	■	646X3-M-0.40	■	■	□	■	1.0	3	3	0.40
636X3-M-0.45	■	■	□	■	646X3-M-0.45	■	■	□	■	1.0	3	3	0.45
636X3-M-0.50	■	■	□	■	646X3-M-0.50	■	■	□	■	1.0	3	3	0.50
636X3-M-0.60	■	■	□	■	646X3-M-0.60	■	■	□	■	1.5	5	5	0.60
636X3-M-0.70	■	■	□	■	646X3-M-0.70	■	■	□	■	1.5	5	5	0.70
636X3-M-0.75	■	■	□	■	646X3-M-0.75	■	■	□	■	1.5	5	5	0.75
636X3-M-0.80	■	■	□	■	646X3-M-0.80	■	■	□	■	1.5	5	5	0.80
636X3-M-1.00	■	■	□	■	646X3-M-1.00	■	■	□	■	2.0	7	5	1.00
636X3-M-1.25	■	■	□	■	646X3-M-1.25	■	■	□	■	2.0	7	5	1.25
636X3-M-1.50	■	■	□	■	646X3-M-1.50	■	■	□	■	2.0	7	5	1.50

L



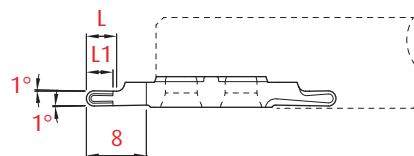
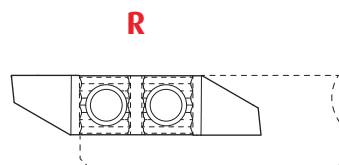
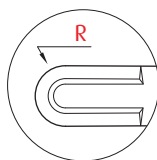
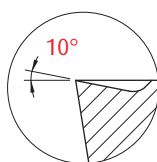
R



Art. N° L						TiAlN		N (µk20)		HTA	HN (µk10)	Art. N° R						TiAlN		N (µk20)		HTA	HN (µk10)	R	L	
-													647-R0.25	■	■	□	■								0.25	1.5
-													647-R0.4	■	■	□	■								0.40	2
637-R0.5		■	■	□	■								647-R0.5	■	■	□	■								0.5	2.5
-													647-R0.6	■	■	□	■								0.6	2.5
-													647-R0.75	■	■	□	■								0.75	3
-													647-R0.8	■	■	□	■								0.8	3
637-R1.0		■	■	□	■								647-R1.0	■	■	□	■								1.0	4
-													647-R1.5	■	■	□	■								1.5	6

Plaquettes à rayon Radius-Wendeplatten Inserts with radius

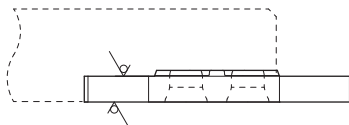
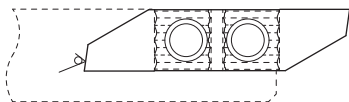
647ZX10



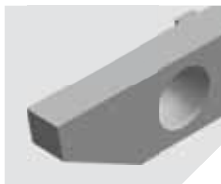
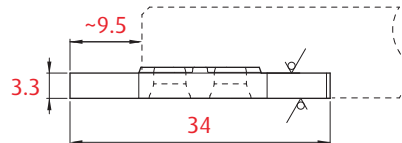
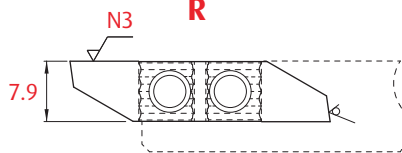
Pour un meilleur contrôle des copeaux
Für eine bessere Spankontrolle
For a better chip-control

Art. N° R	TiAlN N (μK20)	R	L	L1
647ZX10-R1.0	■	1.0	4	3.5
647ZX10-R1.5	■	1.5	6	4

L



R



Face de coupe polie
Polierte Schneidfläche
Cutting face polished

Art. N° L	TiAlN	N (µK20)	HTA	HN (µK10)
631-EP	☐	☒	☐	☒

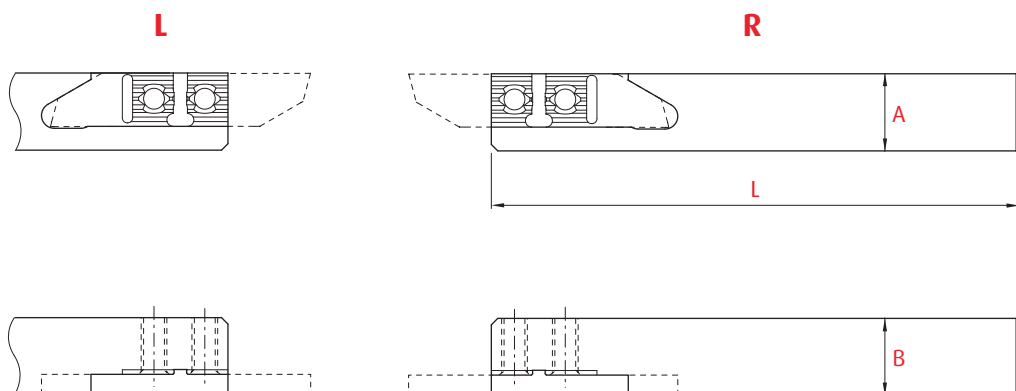
Art. N° R	TiAlN	N (µK20)	HTA	HN (µK10)
641-EP	☐	☒	☐	☒

Porte-outils

Halter

Holders

650 / 660

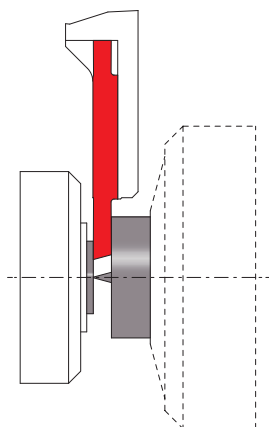
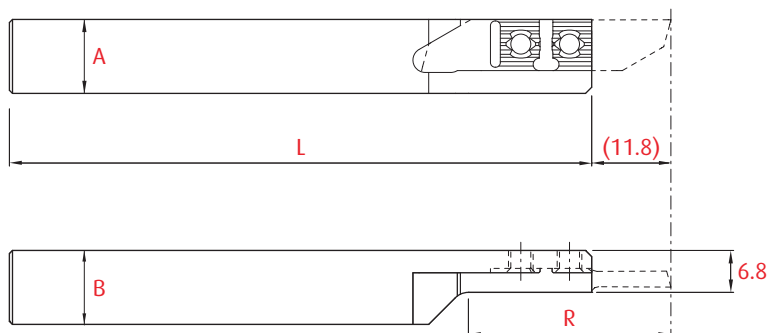


Art. N° L	Art. N° R	A x B	L
650-8-N	660-8-N	8 x 8	115
650-10-N	660-10-N	10 x 10	115
650-10-50-N	660-10-50-N	10 x 10	50
650-12-N	660-12-N	12 x 12	130
650-12-90-N	660-12-90-N	12 x 12	90
650-12.7-N	660-12.7-N	12.7 x 12.7	130
650-16-N	660-16-N	16 x 16	130
650-16-75-N	660-16-75-N	16 x 16	75
650-20-N	660-20-N	20 x 20	120

Chaque support est livré avec vis et clé.
 Jeder Halter wird mit Spannschraube(n) und Schlüssel geliefert.
 Screw(s) and key are included with each tool holder.

Utiliser des plaquettes type 651R
WSP Typ 651R verwenden
Use inserts type 651R

Voir dès page 101
Siehe ab Seite 101
See from page 101

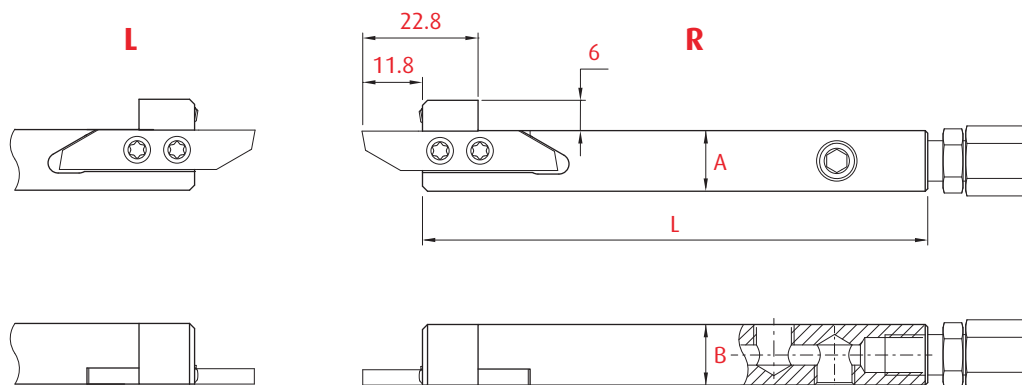


Art. N° Coupe à droite déportée Versetzttes Rechtsschneiden Right cut off line	L (R)	A x B	R	L
650RC-10-N		10 x 10	32	115
650RC-12-N		12 x 12	32	130
650RC-16-N		16 x 16	42	130

Chaque support est livré avec vis et clé.
Jeder Halter wird mit Spannschraube(n) und Schlüssel geliefert.
Screw(s) and key are included with each tool holder.

Porte-outils avec arrosage intégré
Halter mit integrierter Kühlmittelzufuhr
Holders with integrated coolant supply

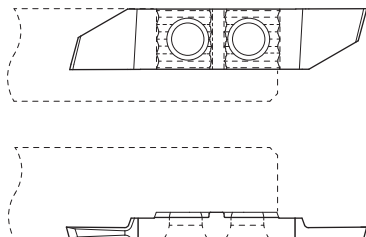
650-JET / 660-JET



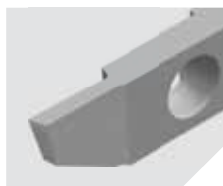
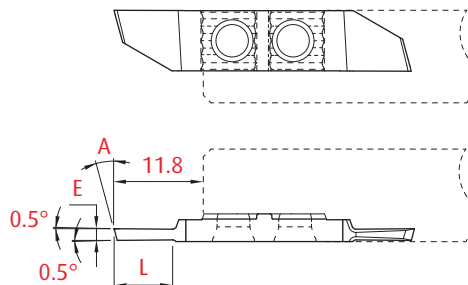
Art. N° L	Art. N° R	A x B	L
650-1012-JET-N	660-1012-JET-N	10 x 12	100
650-12-JET-N	660-12-JET-N	12 x 12	100
650-12.7-JET-N	660-12.7-JET-N	12.7 x 12.7	100
650-16-JET-N	660-16-JET-N	16 x 16	100
650-20-JET-N	660-20-JET-N	20 x 20	100

Chaque support est livré avec vis, clé, raccord droit et buse d'arrosage Ø 1.5 mm.
 Jeder Halter wird mit Spannschraube(n), Schlüssel, gerader Kühlmittelanschluss und Kühlmitteldüse Ø 1.5 mm geliefert.
 Screw(s), key, straight connector and coolant nozzle Ø 1.5 mm are included with each tool holder.

L



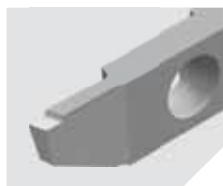
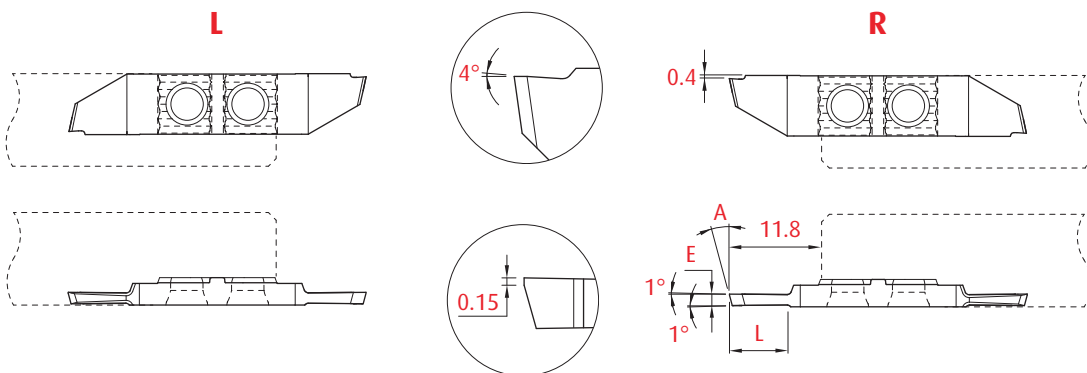
R



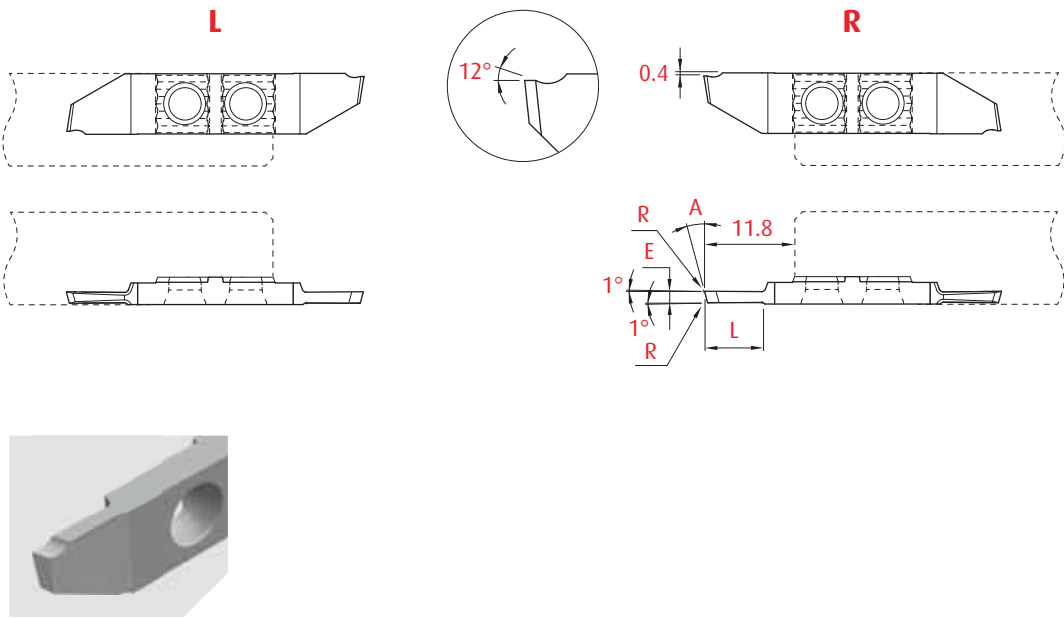
Art. N° L	TiAlN	N (μK20)	HTA	HN (μK10)	Art. N° R	TiAlN	N (μK20)	HTA	HN (μK10)	E	A	L
651-0.8-20°	■	■	□	■	661-0.8-20°	■	■	□	■	0.8	20°	5
-					661-1.0-15°	■	■	□	■	1.0	15°	5
651-1.0-20°	■	■	□	■	661-1.0-20°	■	■	□	■	1.0	20°	5
-					661-1.2-15°	■	■	□	■	1.2	15°	5
651-1.2-20°	■	■	□	■	661-1.2-20°	■	■	□	■	1.2	20°	5
651-1.5-15°	■	■	□	■	661-1.5-15°	■	■	□	■	1.5	15°	7.5
-					661-1.5-20°	■	■	□	■	1.5	20°	7.5
651-1.8-15°	■	■	□	■	661-1.8-15°	■	■	□	■	1.8	15°	9
651-2.0-15°	■	■	□	■	661-2.0-15°	■	■	□	■	2.0	15°	11
651-2.5-15°	■	■	□	■	661-2.5-15°	■	■	□	■	2.5	15°	11

Tronçonnage
Abstechen
Parting off

651XF / 661XF



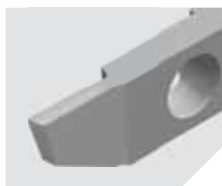
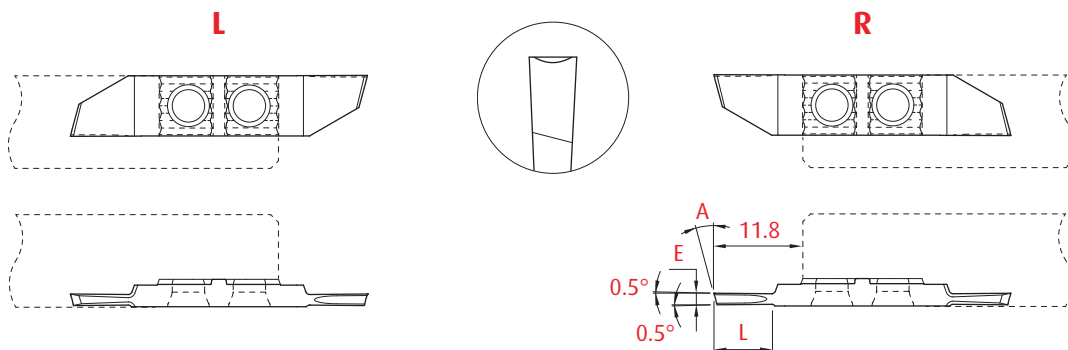
Art. N° L					Art. N° R					E	A	L
	TiAlN	N (μK20)	HTA	HN (μK10)		TiAlN	N (μK20)	HTA	HN (μK10)			
651XF-1.5	■	■	□	■	661XF-1.5	■	■	□	■	1.5	15°	7.5
651XF-2.0	■	■	□	■	661XF-2.0	■	■	□	■	2.0	15°	11



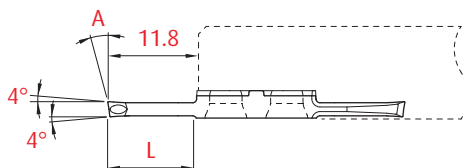
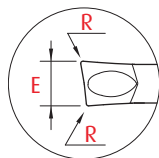
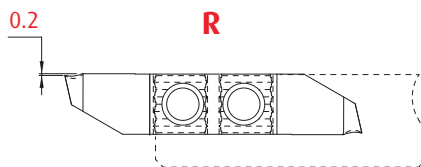
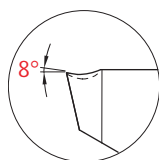
Art. N° L					Art. N° R					E	A	L	R
	TiAlN	N (µK20)	HTA	HN (µK10)		TiAlN	N (µK20)	HTA	HN (µK10)				
651X12-1.0	■	■	□	■	661X12-1.0	■	■	□	■	1.0	15°	5	0.03
651X12-1.5	■	■	□	■	661X12-1.5	■	■	□	■	1.5	15°	7.5	0.03
651X12-2.0	■	■	□	■	661X12-2.0	■	■	□	■	2.0	15°	11	0.03

Tronçonnage
Abstechen
Parting off

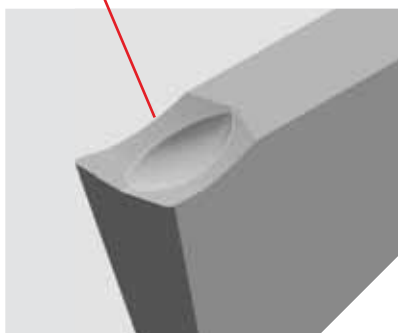
651U / 661U



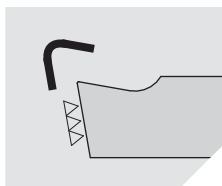
Art. N° L	TiAlN	N (μK20)	HTA	HN (μK10)	Art. N° R	TiAlN	N (μK20)	HTA	HN (μK10)	E	A	L
651U-1.5	■	■	□	■	661U-1.5	■	■	□	■	1.5	15°	7.5
651U-2.0	■	■	□	■	661U-2.0	■	■	□	■	2.0	15°	11



Pour un meilleur contrôle des copeaux
Für eine bessere Spankontrolle
For a better chip-control



Art. N° R	TiAlN N (μK20)	E	A	L	R
661ZU8-2.0-8°-R10	■	2.0	8°	11	0.10



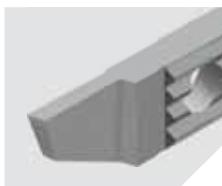
Arête de coupe honée
Gehonte Schneidkante
Honed edge

f min: 0.02 mm/U

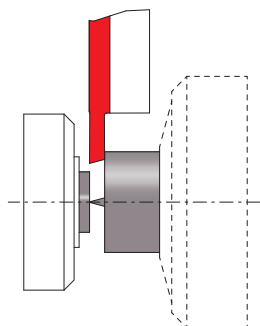
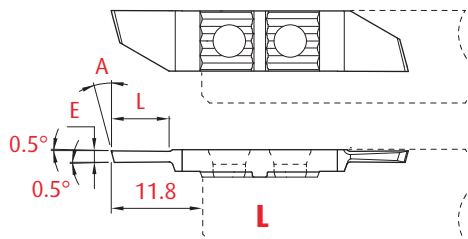
Tronçonnage
Abstechen
Parting off

Coupe déportée
Versetzttes Schneiden
Cut off line

651R



Cut R

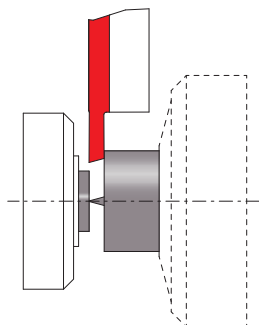
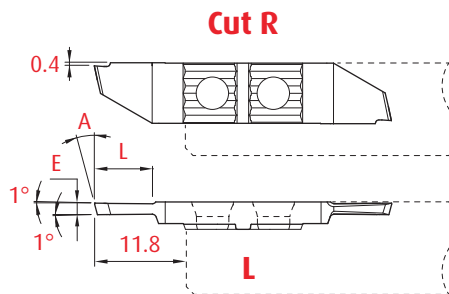
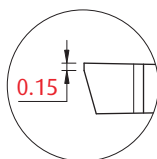
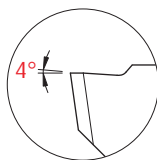


Art. N° Coupe à droite déportée Versetzttes Rechtsschneiden Right cut off line	L (R)				E	A	L
	TIALN	N (μK20)	HTA	HN (μK10)			
651R-1.0-15°	■	■	□	■	1.0	15°	5
651R-1.2-15°	■	■	□	■	1.2	15°	5
651R-1.5-15°	■	■	□	■	1.5	15°	7.5
651R-2.0-15°	■	■	□	■	2.0	15°	11
651R-2.5-15°	■	■	□	■	2.5	15°	11

Tronçonnage
Abstechen
Parting off

Coupe déportée
Versetztes Schneiden
Cut off line

651RXF

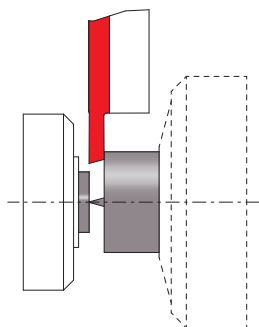
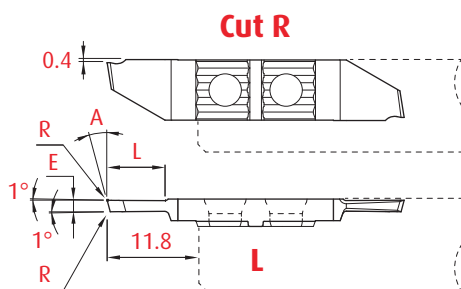
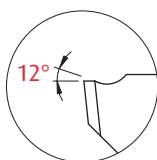
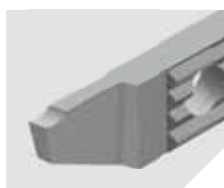


Art. N° Coupe à droite déportée Versetztes Rechtsschneiden Right cut off line	L (R)				E	A	L
	TiAlN	N (μK20)	HTA	HN (μK10)			
651RXF-1.5	■	■	□	■	1.5	15°	7.5
651RXF-2.0	■	■	□	■	2.0	15°	11

Tronçonnage
Abstechen
Parting off

Coupe déportée
Versetztes Schneiden
Cut off line

651RX12

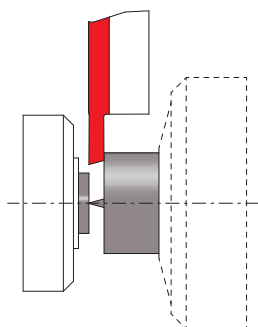
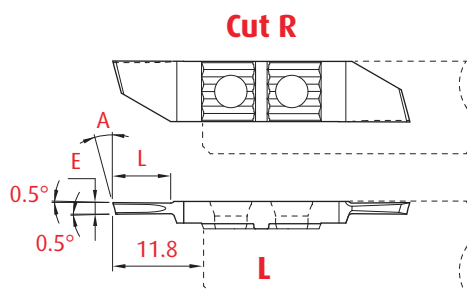
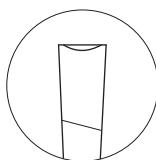
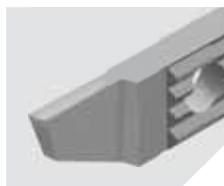


Art. N° Coupe à droite déportée Versetztes Rechtsschneiden Right cut off line	L (R)				E	A	L	R
	TiAlN	N (μK20)	HTA	HN (μK10)				
651RX12-1.5	■	■	□	■	1.5	15°	7.5	0.03
651RX12-2.0	■	■	□	■	2.0	15°	11	0.03

Tronçonnage
Abstechen
Parting off

Coupe déportée
Versetztes Schneiden
Cut off line

651RU

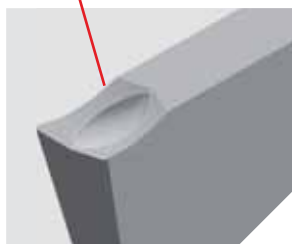
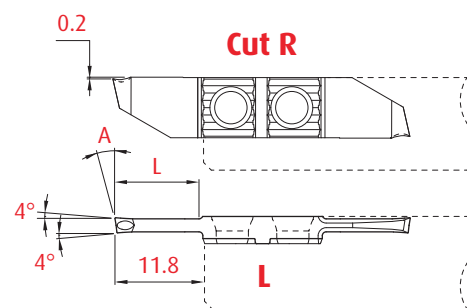
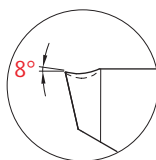
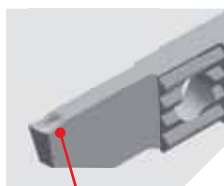


Art. N°	L (R)	TIALN	N (μK20)	HTA	HN (μK10)	E	A	L
651RU-1.5		■	■	□	■	1.5	15°	7.5
651RU-2.0		■	■	□	■	2.0	15°	11

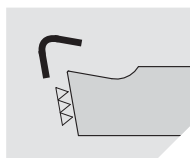
Tronçonnage
Abstechen
Parting off

Coupe déportée
Versetztes Schneiden
Cut off line

651RZU



Pour un meilleur contrôle des copeaux
Für eine bessere Spankontrolle
For a better chip-control

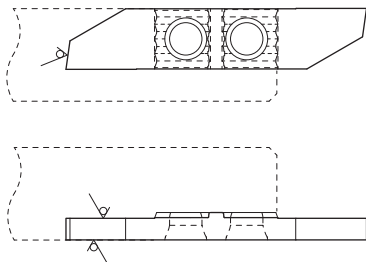


Arête de coupe honée
Gehonte Schneidkante
Honed edge

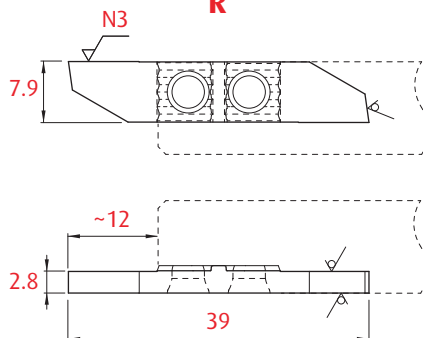
f min: 0.02 mm/U

Art. N°	L (R)	TIALN	N (μK20)	E	A	L	R
651RZU8-2.0-8°-R10		■		2.0	8°	11	0.10

L



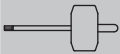
R



Face de coupe polie
Polierte Schneidfläche
Cutting face polished

Art. N°						Art. N°					
L		TiAlN	N (µK20)	HTA	HN (µK10)	R		TiAlN	N (µK20)	HTA	HN (µK10)
651-EP		☐	☒	☐	☒	661-EP		☐	☒	☐	☒

Pièces de rechange et accessoires Ersatzteile und Zubehöre Spare parts and accessories

Pièces de rechange Ersatzteile Spare parts						Accessoires Zubehöre Accessories	
Porte-outils Halter Holders			 	 		Option Art. N°	Recommandation de serrage Drehmoment Empfehlung Clamping recommendation
630 640	V-M4X9-T15	C-T15	-	-	-	SET-NM-TX15	3 Nm
630-JET 640-JET	V-M4X9-T15	C-T15	J-M8X1-D6	JB-M8X1	JJ-M3X6-D1.5	SET-NM-TX15	3 Nm
650 660	V-M4X9-T15	C-T15	-	-	-	SET-NM-TX15	3 Nm
650-RC	V-M4X6.5-T15	C-T15	-	-	-	SET-NM-TX15	3 Nm
650-JET 660-JET	V-M4X9-T15	C-T15	J-M8X1-D6	JB-M8X1	JJ-M3X6-D1.5	SET-NM-TX15	3 Nm

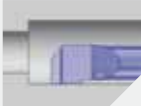
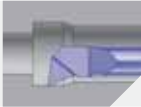
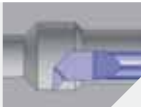
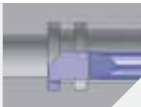
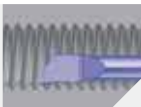
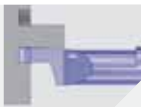


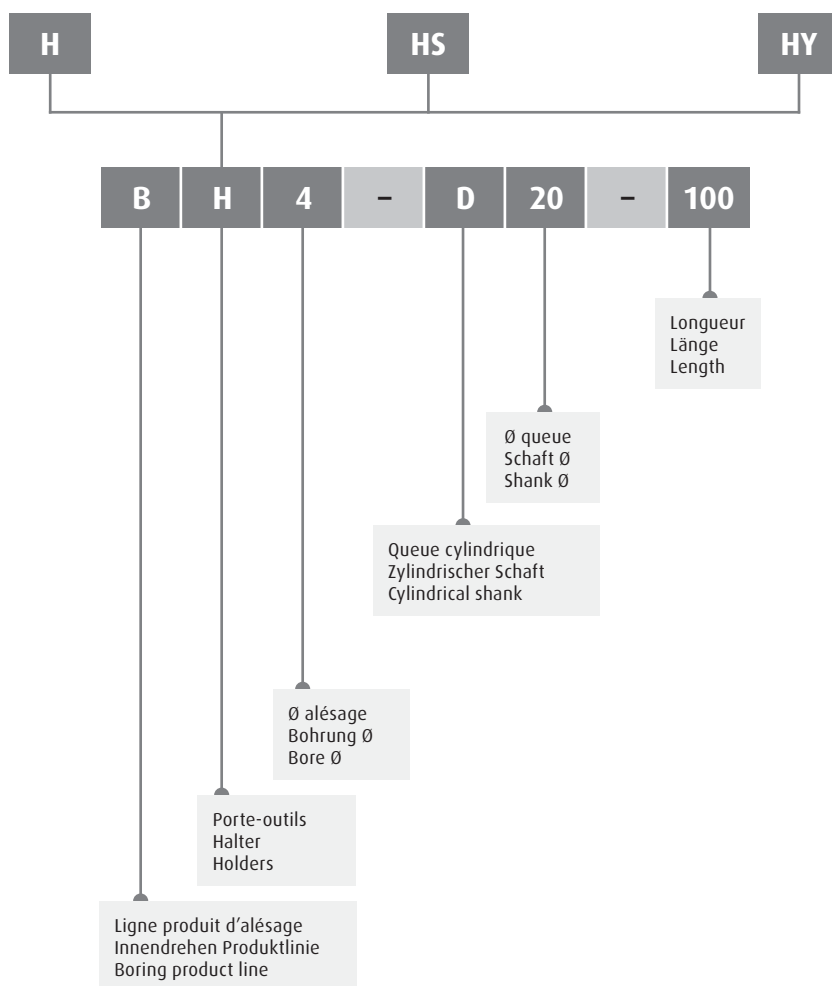
SET-NM-TX15

ALFA-INTERN

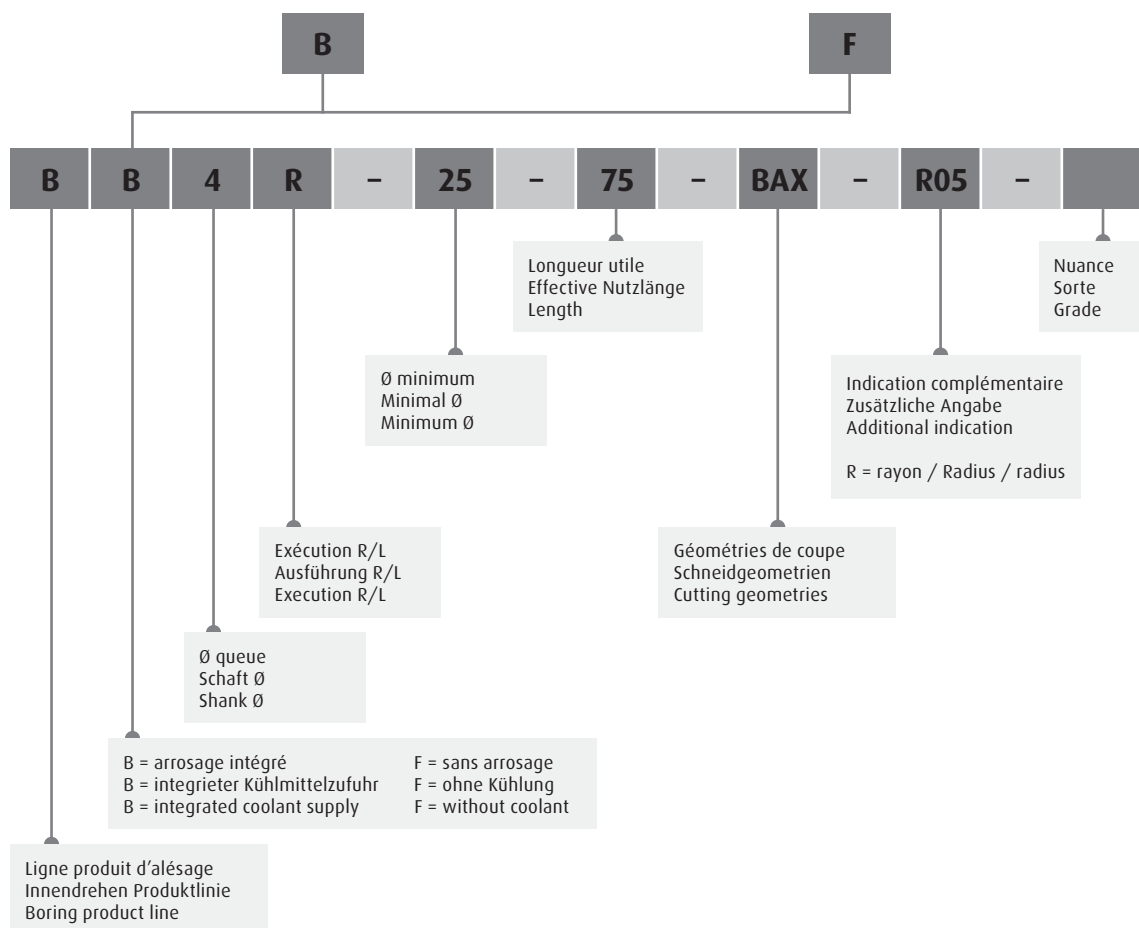


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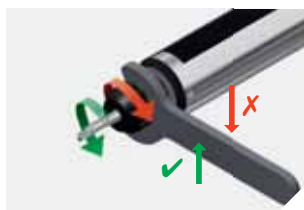
Système de désignation des barres d'alésage Bohrstangen Bezeichnungssystem Boring bars designation system



Porte-outils avec écrou de serrage Halter mit Spannmutter Tool holder with clamping nut

BH

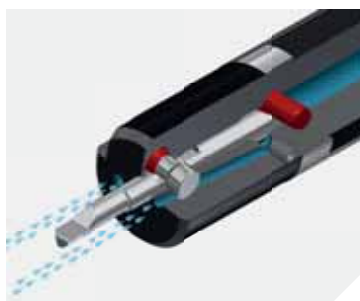
Arrosage par la barre d'alésage
Kühlung durch die Bohrstange
Cooling through the boring bar



Porte-outils avec arrosage multiple Halter mit mehrfaches Kühlungssystem Tool holders with multiple coolant system

BHS

Système de serrage à vis transversale
Querverschraubungsspannsystem
Clamping system with transverse screw



Arrosage sur l'arête de coupe
Kühlung auf der Schneidkante
Cooling on the cutting edge



BF



Arrosage favorisant l'évacuation des copeaux
Spanabfuhr fördernde Kühlung
Cooling for better chip outflow



BF



Arrosage par le centre de l'outil
Zentrale Kühlmittelzufuhr
Cooling through the center of the tool

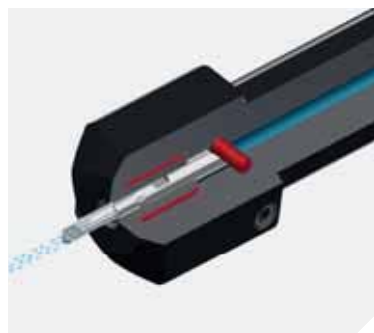


BB



Porte-outils à serrage hydraulique
Halter mit Hydro-Dehnspann-System
Tool holders with hydraulic clamping system

BHY



Excellente absorption des vibrations!
 Ausgezeichnete Schwingungsdämpfung!
 Excellent vibration absorption!

Arrosage par la barre d'alésage
 Kühlung durch die Bohrstange
 Cooling through the boring bar

Accessoires de serrage
Spannzubehöre
Clamping accessories



 = 1.0-1.2 Nm

Nous recommandons le serrage des porte-outils types BHS et BHK avec ce type de tournevis dynamométrique.

Wir empfehlen für das Anziehen der Halter Typ BHS und BHK diese Art von Drehmomentschraubendreher.

For holders type BHS and BHK clamping, we recommend this kind of torque screwdriver.



Art. N°

SET-NM1.2-TX8

Nuances Sorten Grades

ZTAF

ZN + revêtement PVD
ZN + PVD Beschichtung
ZN + PVD coating

- nuance universelle pour l'usinage des aciers, aciers inoxydables, aciers alliés, alliage de titane
- bonne résistance à la température

- Universalsorte für die Bearbeitung von Stahl, rostfreiem Stahl, Stahllegierung, Titanlegierung
- gute Warmfestigkeit

- universal grade for steel, stainless steel, alloyed steel, titanium alloys
- good heat resistance

ZTAXF

ZN + revêtement PVD
ZN + PVD Beschichtung
ZN + PVD coating

- nuance très résistante à l'usure et à la température, recommandée pour l'usinage des matières suivantes: Inox 304, 316L, 317L, 904, Finox
- aciers alliés contenant: Chrome Nickel, Vanadium, Molybdène, ...

- sehr verschleissfeste und temperaturbeständige Sorte. Für folgende Materialien empfohlen: Inox 304, 316L, 317L, 904, Finox
- legierter Stahl enthaltend: Chrom-Nickel, Vanadium, Molybdän, ...

- very wear and high temperature resistant grade. Recommended for following material: Inox 304, 316L, 317L, 904, Finox
- alloy steel containing: Chrome-nickel, Vanadium, Molybdenum, ...

ZN

non revêtu
unbeschichtet
uncoated

- nuance de base micro-grain tenace
- 1^{er} choix pour l'usinage des métaux non ferreux

- zähe Basis Feinkornsorte
- beste Wahl für die Bearbeitung von Nichteisenmetalle

- tough base micro-grain grade
- first choice for non-ferrous materials

Paramètres de coupe

Schnittwerte

Machining data

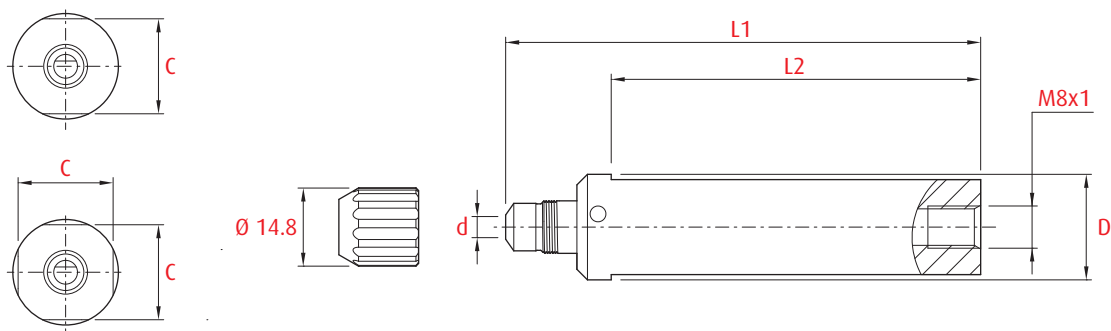
Matière Werkstoff Material	VC (m/min)	Ø barre d'alésage Bohrstange Ø boring bar Ø		
		Ø1.0 - Ø2.0 (mm/U)	Ø2.5 - Ø4.0 (mm/U)	Ø4.5 - Ø5.5 (mm/U)
Acier de décolletage Automatenstahl Free-cutting steel	60-100	0.02-0.03	0.02-0.08	0.03-0.10
Acier faiblement allié Leicht legierter Stahl Low alloyed steel	50-80	0.01-0.03	0.02-0.05	0.03-0.06
Acier fortement allié Legierter Stahl High alloyed steel	40-60	0.01-0.02	0.02-0.04	0.02-0.06
Acier inoxydable Rostfreistahl Stainless steel	40-90	0.01-0.03	0.02-0.05	0.03-0.08
Aluminium	60-150	0.01-0.03	0.02-0.06	0.03-0.10
Titane Titan Titanium	30-70	0.01-0.03	0.02-0.05	0.03-0.10
Cuivre, laiton, bronze Kupfer, Messing, Bronze Copper, brass, bronze	60-150	0.01-0.03	0.02-0.05	0.03-0.08

Porte-outils avec écrou de serrage Halter mit Spannmutter Tool holder with clamping nut

BH4...



> page 110



Art. N°	d	Bars	D	L1	L2	C	2 flats	4 flats
BH4-D10-75-N	4	BB4... BF4...	10	75	55	8.8	■	
BH4-D12-75-N			12	75	55	11.2	■	
BH4-D12.7-75-N			12.7	75	55	11.2	■	
BH4-D15.87-75-N			15.87	75	55	14	■	
BH4-D16-75-N			16	75	55	14	■	
BH4-D16-75-F4-N			16	75	55	14		■
BH4-D19.05-90-N			19.05	90	70	17	■	
BH4-D20-90-N			20	90	70	18	■	
BH4-D20-90-F4-N			20	90	70	18		■
BH4-D20-160-F4-N			20	160	140	18		■
BH4-D22-90-N			22	90	70	20	■	
BH4-D22-90-F4-N			22	90	70	20		■
BH4-D22-130-F4-N			22	130	110	20		■
BH4-D25-100-N			25	100	80	23	■	
BH4-D25-100-F4-N			25	100	80	23		■
BH4-D25-170-F4-N			25	170	150	23		■
BH4-D25.4-100-N			25.4	100	80	23.4	■	
BH4-D28-100-N			28	100	80	26	■	

Pièces de rechange Ersatzteile Spare parts
BH4...

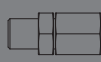
Art. N°

BH4-M10

Art. N°

C-BH4-M10

Option
BH4...

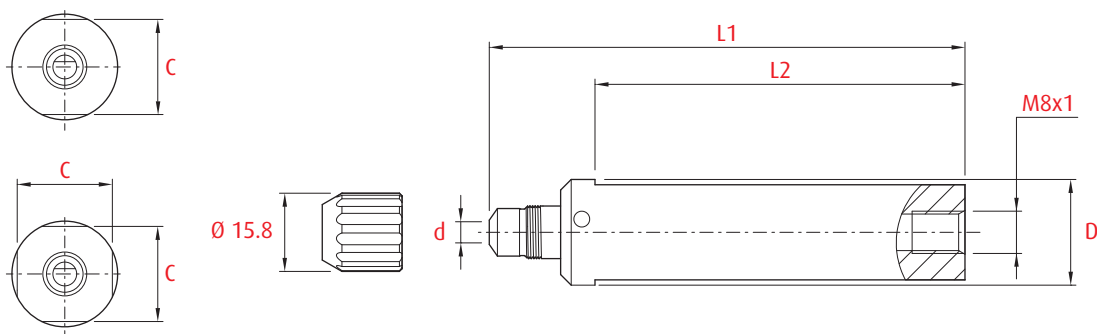
Art. N°

J-M8x1-D6

Porte-outils avec écrou de serrage
Halter mit Spannmutter
Tool holder with clamping nut

BH6...



> page 110



Art. N°	d	Bars	D	L1	L2	C	2 flats	4 flats
BH6-D12-75-N	6	BB6... BF6...	12	75	55	11.2	■	
BH6-D12.7-75-N			12.7	75	55	11.2	■	
BH6-D15.87-75-N			15.87	75	55	14	■	
BH6-D16-75-N			16	75	55	14	■	
BH6-D19.05-90-N			19.05	90	70	17	■	
BH6-D20-90-N			20	90	70	18	■	
BH6-D20-90-F4-N			20	90	70	18		■
BH6-D20-160-F4-N			20	160	140	18		■
BH6-D22-90-N			22	90	70	20	■	
BH6-D22-90-F4-N			22	90	70	20		■
BH6-D22-130-F4-N			22	130	110	20		■
BH6-D25-100-N			25	100	80	23	■	
BH6-D25-100-F4-N			25	100	80	23		■
BH6-D25-170-F4-N			25	170	150	23		■
BH6-D25.4-100-N			25.4	100	80	23.4	■	
BH6-D28-100-N			28	100	80	26	■	

Pièces de rechange
Ersatzteile
Spare parts

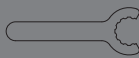
BH6...

Art. N°



BH6-M12

Art. N°



C-BH6-M12

Option

BH6...

Art. N°



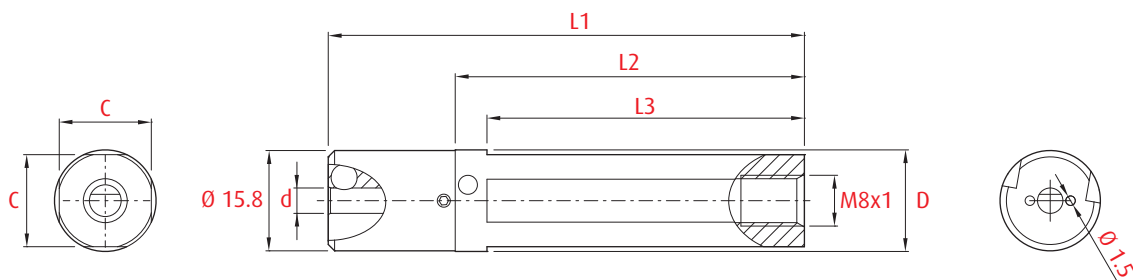
J-M8x1-D6

Porte-outils avec arrosage multiple
Halter mit mehrfaches Kühlungssystem
Tool holders with multiple coolant system

BHS4...



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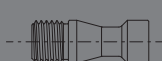


Art. N°	d	Bars	D	L1	L2	L3	C
BHS4-D10-75-F4-N	4	BB4... BF4...	10	75	55	50	9.2
BHS4-D12-75-F4-N			12	75	55	50	11
BHS4-D12.7-75-F4-N			12.7	75	55	50	11.7
BHS4-D15.87-75-F4-N			15.87	75	55	50	14.5
BHS4-D16-75-F4-N			16	75	55	50	14.5
BHS4-D16-110-F4-N			16	110	90	85	14.5
BHS4-D19.05-90-F4-N			19.05	90	70	65	17
BHS4-D20-90-F4-N			20	90	70	65	18
BHS4-D20-160-F4-N			20	160	140	135	18
BHS4-D22-90-F4-N			22	90	70	65	20
BHS4-D22-130-F4-N			22	130	110	105	20
BHS4-D25-100-F4-N			25	100	80	75	23
BHS4-D25-170-F4-N			25	170	150	145	23
BHS4-D25.4-100-F4-N			25.4	100	80	75	23
BHS4-D28-100-F4-N			28	100	80	75	26

Pièces de rechange
Ersatzteile
Spare parts

BHS4...

Art. N°



V-BHS-M4x0.5-T8

Art. N°



C-T8

Option

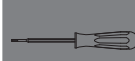
BHS4...

Art. N°



J-M8x1-D6

Art. N°



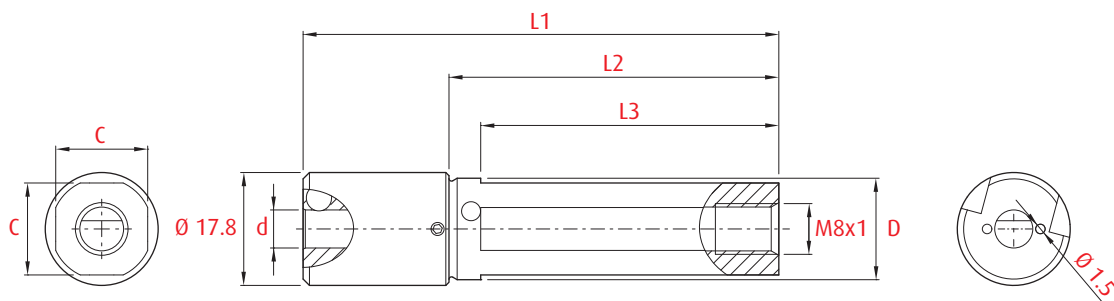
SET-NM1.2-TX8

Porte-outils avec arrosage multiple
Halter mit mehrfaches Kühlungssystem
Tool holders with multiple coolant system

BHS6...



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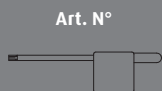
Art. N°	d	Bars	D	L1	L2	L3	C
BHS6-D12-75-F4-N	6	BB6... BF6...	12	75	52	47	11
BHS6-D12.7-75-F4-N			12.7	75	52	47	11.7
BHS6-D15.87-75-F4-N			15.87	75	52	47	14.5
BHS6-D16-75-F4-N			16	75	52	47	14.5
BHS6-D19.05-90-F4-N			19.05	90	67	62	17
BHS6-D20-90-F4-N			20	90	67	62	18
BHS6-D20-160-F4-N			20	160	137	132	18
BHS6-D22-90-F4-N			22	90	67	62	20
BHS6-D22-130-F4-N			22	130	107	102	20
BHS6-D25-100-F4-N			25	100	77	72	23
BHS6-D25-170-F4-N			25	170	147	142	23
BHS6-D25.4-100-F4-N			25.4	100	77	72	23
BHS6-D28-100-F4-N			28	100	77	72	26

Pièces de rechange
Ersatzteile
Spare parts

BHS6...



Art. N°
V-BHS-M4x0.5-T8



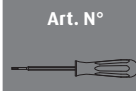
Art. N°
C-T8

Option

BHS6...



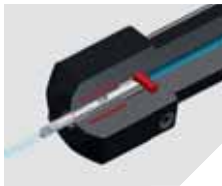
Art. N°
J-M8x1-D6



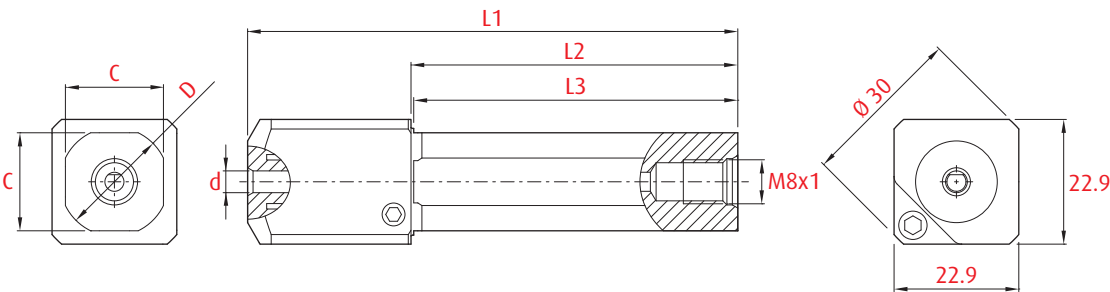
Art. N°
SET-NM1.2-TX8

Porte-outils à serrage hydraulique
Halter mit Hydro-Dehnspann-System
Tool holders with hydraulic clamping system

BHY4...



> page 111

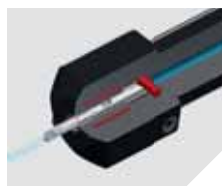


Art. N°	d	Bars	D	L1	L2	L3	C
BHY4-D12-90-F4-N	4	BB4... BF4...	12	90	60	59.5	11.2
BHY4-D16-90-F4-N			16	90	60	59.5	14.5
BHY4-D19.05-90-F4-N			19.05	90	60	59.5	17
BHY4-D20-90-F4-N			20	90	60	59.5	18
BHY4-D22-90-F4-N			22	90	60	59.5	20
BHY4-D25-100-F4-N			25	100	70	70	23

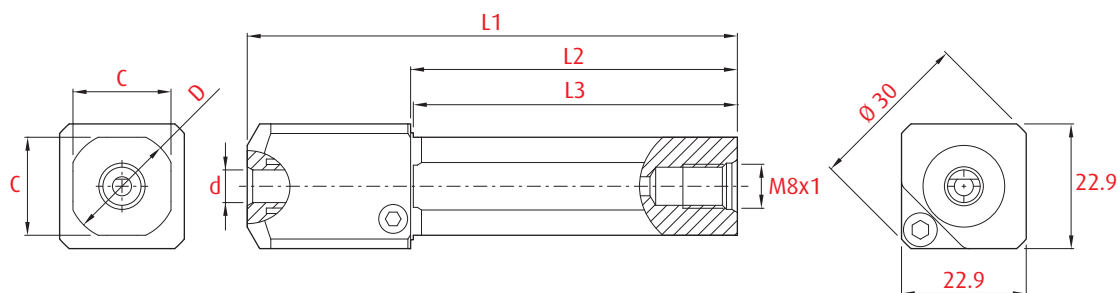
Pièces de rechange Ersatzteile Spare parts	Art. N° 	Art. N° 
BHY4...	J-M8x1-D6	C-6P-3.0

Porte-outils à serrage hydraulique
Halter mit Hydro-Dehnspann-System
Tool holders with hydraulic clamping system

BHY6...



> page 111



Art. N°	d	Bars	D	L1	L2	L3	C
BHY6-D12-90-F4-N	6	BB6... BF6...	12	90	60	59.5	11.2
BHY6-D16-90-F4-N			16	90	60	59.5	14.5
BHY6-D19.05-90-F4-N			19.05	90	60	59.5	17
BHY6-D20-90-F4-N			20	90	60	59.5	18
BHY6-D22-90-F4-N			22	90	60	59.5	20
BHY6-D25-100-F4-N			25	100	70	70	23

Pièces de rechange
Ersatzteile
Spare parts

BHY6...

Art. N°



J-M8x1-D6

Art. N°



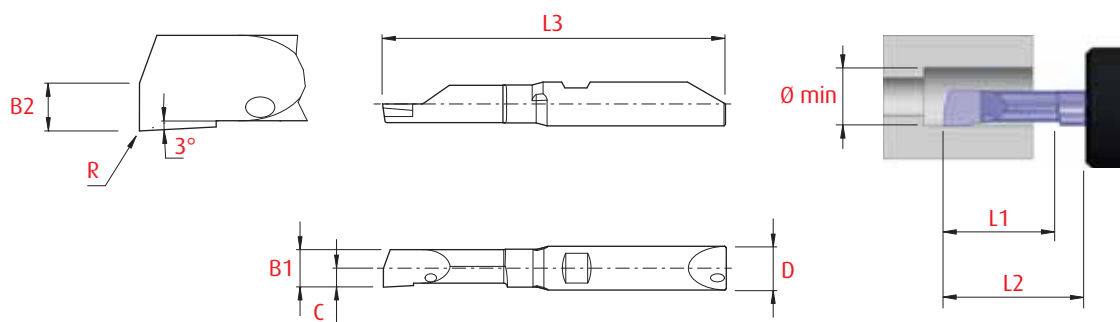
C-6P-3.0

Alésage
Ausbohren
Boring



BB4...

BA



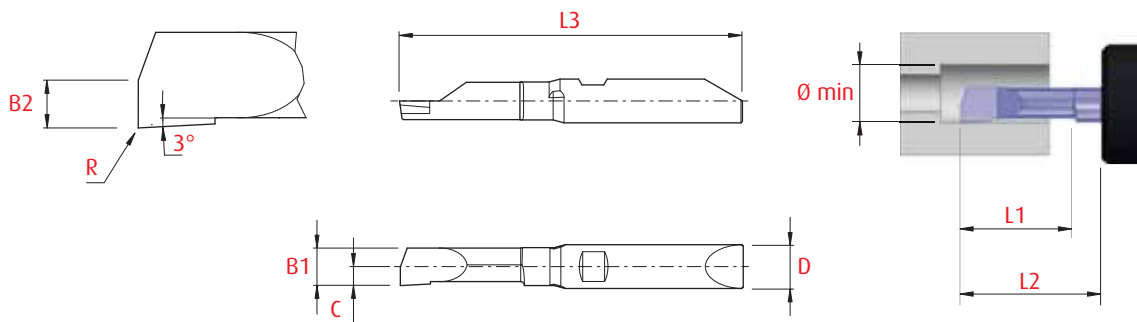
Art. N°	R			L	D h5	Holder	Ø min	L1	L2 BH4... BHY4...	L2 BHS4...	B1	B2	C	R	L3
	ZTAF	ZTAXF	ZN	ZTAF											
BB4R/L-0309-BA	■	■	■	□	□	4	0.3	0.9	10	8.5	0.27	0.13	0.15	0	32
BB4R/L-0412-BA	■	■	■	□	□		0.4	1.2	10	8.5	0.36	0.18	0.20	0	32
BB4R/L-0515-BA	■	■	■	□	□		0.5	1.5	10	8.5	0.45	0.22	0.25	0	32
BB4R/L-1030-BA-R02	■	■	■	□	□		1.0	3.0	10	8.5	0.90	0.45	0.60	0.02	32
BB4R/L-1545-BA-R02	■	■	■	□	□		1.5	4.5	10	8.5	1.35	0.67	0.65	0.02	32
BB4R/L-2060-BA-R02	■	■	■	□	□		2.0	6.0	10	8.5	1.80	0.90	1.15	0.02	32
BB4R/L-2575-BA-R02	■	■	■	□	□		2.5	7.5	10	8.5	2.25	1.13	1.30	0.02	32
BB4R/L-3090-BA-R05	■	■	■	□	□		3.0	9.0	15	13.5	2.70	1.35	1.35	0.05	37
BB4R/L-35105-BA-R05	■	■	■	□	□		3.5	10.5	15	13.5	3.15	1.58	1.60	0.05	37

**Alésage
Ausbohren
Boring**

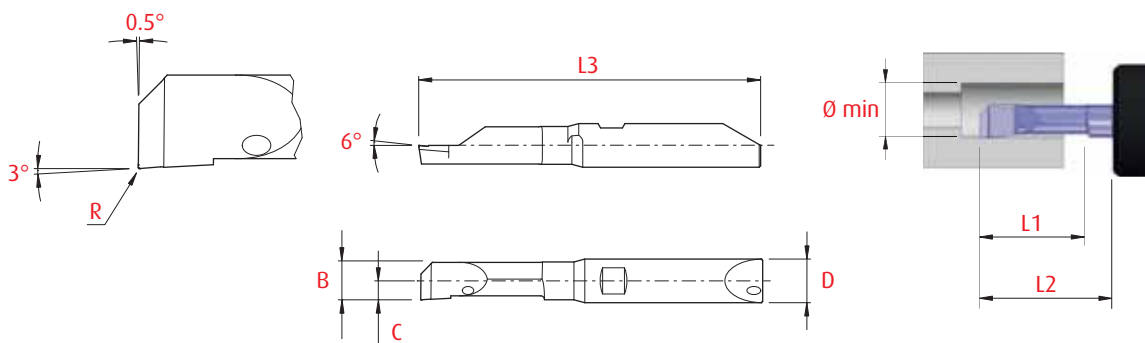


BF4...

BA



Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH4... BHY4...	L2 BHS4...	B1	B2	C	R	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN											
BF4R/L-0309-BA	■	■	■	□	□	4	BH4... BHS4... BHY4...	0.3	0.9	10	8.5	0.27	0.13	0.15	0	32
BF4R/L-0412-BA	■	■	■	□	□			0.4	1.2	10	8.5	0.36	0.18	0.20	0	32
BF4R/L-0515-BA	■	■	■	□	□			0.5	1.5	10	8.5	0.45	0.22	0.25	0	32
BF4R/L-1030-BA-R02	■	■	■	□	□			1.0	3.0	10	8.5	0.90	0.45	0.60	0.02	32
BF4R/L-1545-BA-R02	■	■	■	□	□			1.5	4.5	10	8.5	1.35	0.67	0.65	0.02	32
BF4R/L-2060-BA-R02	■	■	■	□	□			2.0	6.0	10	8.5	1.80	0.90	1.15	0.02	32
BF4R/L-2575-BA-R02	■	■	■	□	□			2.5	7.5	10	8.5	2.25	1.13	1.30	0.02	32
BF4R/L-3090-BA-R05	■	■	■	□	□			3.0	9.0	15	13.5	2.70	1.35	1.35	0.05	37
BF4R/L-35105-BA-R05	■	■	■	□	□			3.5	10.5	15	13.5	3.15	1.58	1.60	0.05	37



Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH4... BHY4...	L2 BHS4...	B	C	R	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN										
BB4R/L-0515-BAX	■	■	■	□	□	4	BH4... BHS4... BHY4...	0.5	1.5	10	8.5	0.45	0.25	0	32
BB4R/L-0618-BAX	■	■	■	□	□			0.6	1.8	10	8.5	0.54	0.30	0	32
BB4R/L-0721-BAX	■	■	■	□	□			0.7	2.1	10	8.5	0.63	0.35	0	32
BB4R/L-0824-BAX	■	■	■	□	□			0.8	2.4	10	8.5	0.72	0.40	0	32
BB4R/L-0927-BAX	■	■	■	□	□			0.9	2.7	10	8.5	0.81	0.45	0	32
BB4R/L-1030-BAX-R02	■	■	■	□	□			1.0	3.0	10	8.5	0.90	0.60	0.02	32
BB4R/L-1050-BAX-R02	■	■	■	□	□			1.0	5.0	10	8.5	0.90	0.60	0.02	32
BB4R/L-1545-BAX-R02	■	■	■	□	□			1.5	4.5	10	8.5	1.35	0.65	0.02	32
BB4R/L-1575-BAX-R02	■	■	■	□	□			1.5	7.5	10	8.5	1.35	0.65	0.02	32
BB4R/L-2060-BAX-R02	■	■	■	□	□			2.0	6.0	10	8.5	1.80	1.15	0.02	32
BB4R/L-20100-BAX-R02	■	■	■	□	□			2.0	10.0	15	13.5	1.80	1.15	0.02	37
BB4R/L-2575-BAX-R05	■	■	■	□	□			2.5	7.5	10	8.5	2.25	1.30	0.05	32
BB4R/L-25125-BAX-R05	■	■	■	□	□			2.5	12.5	15	13.5	2.25	1.30	0.05	37
BB4R/L-3090-BAX-R05	■	■	■	□	□			3.0	9.0	15	13.5	2.70	1.35	0.05	37
BB4R/L-30150-BAX-R05	■	■	■	□	□			3.0	15.0	20	18.5	2.70	1.35	0.05	42
BB4R/L-35105-BAX-R05	■	■	■	□	□			3.5	10.5	15	13.5	3.15	1.60	0.05	37
BB4R/L-35175-BAX-R05	■	■	■	□	□			3.5	17.5	20	18.5	3.15	1.60	0.05	42

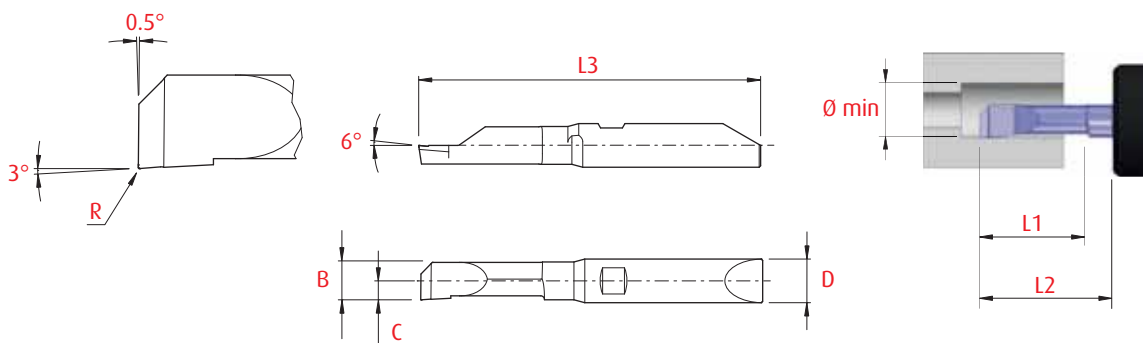
Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH6... BHY6...	L2 BHS6...	B	C	R	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN										
BB6R/L-40120-BAX-R05	■	■	■	□	□	6	BH6... BHS6... BHY6...	4.0	12.0	20	18.5	3.80	2.20	0.05	47
BB6R/L-40200-BAX-R05	■	■	■	□	□			4.0	20.0	30	28.5	3.80	2.20	0.05	57
BB6R/L-45135-BAX-R05	■	■	■	□	□			4.5	13.5	20	18.5	4.28	2.30	0.05	47
BB6R/L-45225-BAX-R05	■	■	■	□	□			4.5	22.5	30	28.5	4.28	2.30	0.05	57
BB6R/L-50150-BAX-R05	■	■	■	□	□			5.0	15.0	20	18.5	4.75	2.40	0.05	47
BB6R/L-50250-BAX-R05	■	■	■	□	□			5.0	25.0	30	28.5	4.75	2.40	0.05	57
BB6R/L-55165-BAX-R05	■	■	■	□	□			5.5	16.5	20	18.5	5.15	2.60	0.05	47
BB6R/L-55275-BAX-R05	■	■	■	□	□			5.5	27.5	30	28.5	5.15	2.60	0.05	57

**Alésage
Ausbohren
Boring**



BF4... / BF6...

BAX

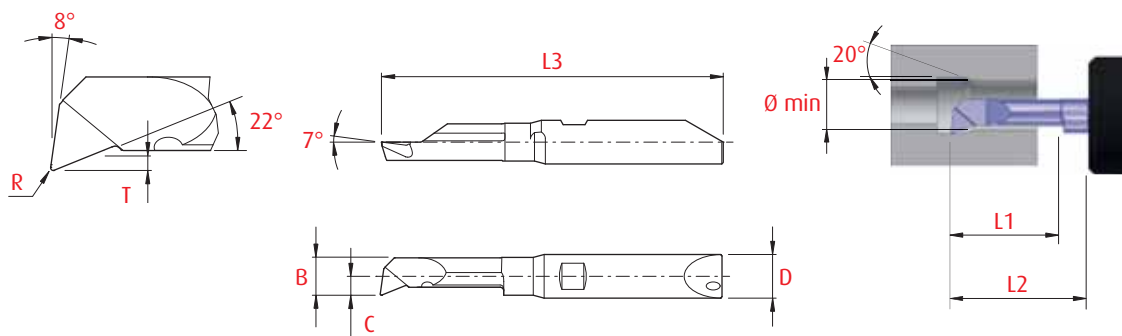


Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH4... BHY4...	L2 BHS4...	B	C	R	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN										
BF4R/L-0515-BAX	■	■	■	□	□	4	BH4... BHS4... BHY4...	0.5	1.5	10	8.5	0.45	0.25	0	32
BF4R/L-0618-BAX	■	■	■	□	□			0.6	1.8	10	8.5	0.54	0.30	0	32
BF4R/L-0721-BAX	■	■	■	□	□			0.7	2.1	10	8.5	0.63	0.35	0	32
BF4R/L-0824-BAX	■	■	■	□	□			0.8	2.4	10	8.5	0.72	0.40	0	32
BF4R/L-0927-BAX	■	■	■	□	□			0.9	2.7	10	8.5	0.81	0.45	0	32
BF4R/L-1030-BAX-R02	■	■	■	□	□			1.0	3.0	10	8.5	0.90	0.60	0.02	32
BF4R/L-1050-BAX-R02	■	■	■	□	□			1.0	5.0	10	8.5	0.90	0.60	0.02	32
BF4R/L-1545-BAX-R02	■	■	■	□	□			1.5	4.5	10	8.5	1.35	0.65	0.02	32
BF4R/L-1575-BAX-R02	■	■	■	□	□			1.5	7.5	10	8.5	1.35	0.65	0.02	32
BF4R/L-2060-BAX-R02	■	■	■	□	□			2.0	6.0	10	8.5	1.80	1.15	0.02	32
BF4R/L-20100-BAX-R02	■	■	■	□	□			2.0	10.0	15	13.5	1.80	1.15	0.02	37
BF4R/L-2575-BAX-R05	■	■	■	□	□			2.5	7.5	10	8.5	2.25	1.30	0.05	32
BF4R/L-25125-BAX-R05	■	■	■	□	□			2.5	12.5	15	13.5	2.25	1.30	0.05	37
BF4R/L-3090-BAX-R05	■	■	■	□	□			3.0	9.0	15	13.5	2.70	1.35	0.05	37
BF4R/L-30150-BAX-R05	■	■	■	□	□			3.0	15.0	20	18.5	2.70	1.35	0.05	42
BF4R/L-35105-BAX-R05	■	■	■	□	□			3.5	10.5	15	13.5	3.15	1.60	0.05	37
BF4R/L-35175-BAX-R05	■	■	■	□	□			3.5	17.5	20	18.5	3.15	1.60	0.05	42

Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH6... BHY6...	L2 BHS6...	B	C	R	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN										
BF6R/L-40120-BAX-R05	■	■	■	□	□	6	BH6... BHS6... BHY6...	4.0	12.0	20	18.5	3.80	2.20	0.05	47
BF6R/L-40200-BAX-R05	■	■	■	□	□			4.0	20.0	30	28.5	3.80	2.20	0.05	57
BF6R/L-45135-BAX-R05	■	■	■	□	□			4.5	13.5	20	18.5	4.28	2.30	0.05	47
BF6R/L-45225-BAX-R05	■	■	■	□	□			4.5	22.5	30	28.5	4.28	2.30	0.05	57
BF6R/L-50150-BAX-R05	■	■	■	□	□			5.0	15.0	20	18.5	4.75	2.40	0.05	47
BF6R/L-50250-BAX-R05	■	■	■	□	□			5.0	25.0	30	28.5	4.75	2.40	0.05	57
BF6R/L-55165-BAX-R05	■	■	■	□	□			5.5	16.5	20	18.5	5.15	2.60	0.05	47
BF6R/L-55275-BAX-R05	■	■	■	□	□			5.5	27.5	30	28.5	5.15	2.60	0.05	57

■ = disponible / verfügbar / available

□ = selon disponibilité du stock / jenach Lagerverfügbarkeit / depending the stock availability



Art. N°	R			L		D _{hs}	Holder	Ø min	L1	L2 BH4... BHY4...	L2 BHS4...	T	B	C	R	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN											
BB4R/L-1030-BCX-R05	■	■	■	□	□	4	BH4... BHS4... BHY4...	1.0	3.0	10	8.5	0.15	0.90	0.70	0.05	32
BB4R/L-1050-BCX-R05	■	■	■	□	□				5.0	10	8.5	0.15	0.90	0.70	0.05	32
BB4R/L-1545-BCX-R05	■	■	■	□	□			1.5	4.5	10	8.5	0.23	1.35	0.75	0.05	32
BB4R/L-1575-BCX-R05	■	■	■	□	□				7.5	10	8.5	0.23	1.35	0.75	0.05	32
BB4R/L-2060-BCX-R05	■	■	■	□	□			2.0	6.0	10	8.5	0.30	1.80	1.15	0.05	32
BB4R/L-20100-BCX-R05	■	■	■	□	□				10.0	15	13.5	0.30	1.80	1.15	0.05	37
BB4R/L-2575-BCX-R10	■	■	■	□	□			2.5	7.5	10	8.5	0.38	2.25	1.30	0.10	32
BB4R/L-25125-BCX-R10	■	■	■	□	□				12.5	15	13.5	0.38	2.25	1.30	0.10	37
BB4R/L-3090-BCX-R10	■	■	■	□	□			3.0	9.0	15	13.5	0.45	2.70	1.35	0.10	37
BB4R/L-30150-BCX-R10	■	■	■	□	□				15.0	20	18.5	0.45	2.70	1.35	0.10	42
BB4R/L-35105-BCX-R10	■	■	■	□	□			3.5	10.5	15	13.5	0.53	3.15	1.60	0.10	37
BB4R/L-35175-BCX-R10	■	■	■	□	□				17.5	20	18.5	0.53	3.15	1.60	0.10	42

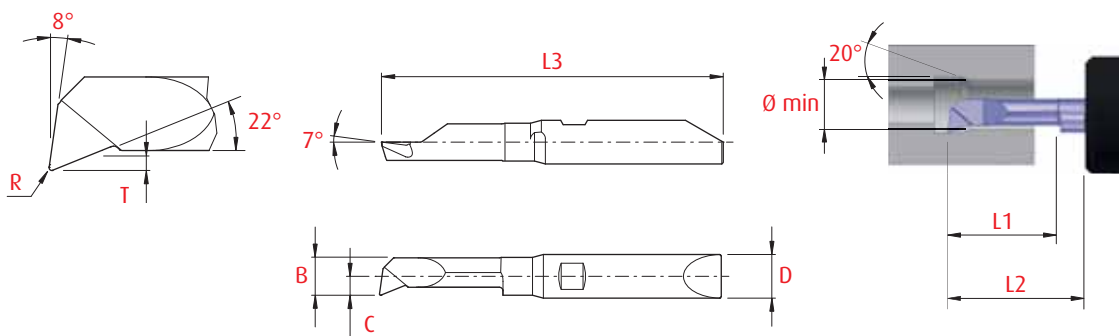
Art. N°	R			L		D _{hs}	Holder	Ø min	L1	L2 BH6... BHY6...	L2 BHS6...	T	B	C	R	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN											
BB6R/L-40120-BCX-R15	■	■	■	□	□	6	BH6... BHS6... BHY6...	4.0	12.0	20	18.5	0.60	3.80	2.20	0.15	47
BB6R/L-40200-BCX-R15	■	■	■	□	□				20.0	30	28.5	0.60	3.80	2.20	0.15	57
BB6R/L-45135-BCX-R15	■	■	■	□	□			4.5	13.5	20	18.5	0.68	4.28	2.30	0.15	47
BB6R/L-45225-BCX-R15	■	■	■	□	□				22.5	30	28.5	0.68	4.28	2.30	0.15	57
BB6R/L-50150-BCX-R15	■	■	■	□	□			5.0	15.0	20	18.5	0.75	4.75	2.40	0.15	47
BB6R/L-50250-BCX-R15	■	■	■	□	□				25.0	30	28.5	0.75	4.75	2.40	0.15	57
BB6R/L-55165-BCX-R15	■	■	■	□	□			5.5	16.5	20	18.5	0.83	5.15	2.60	0.15	47
BB6R/L-55275-BCX-R15	■	■	■	□	□				27.5	30	28.5	0.83	5.15	2.60	0.15	57

Alésage-copiage
Ausbohren-kopieren
Boring chambering



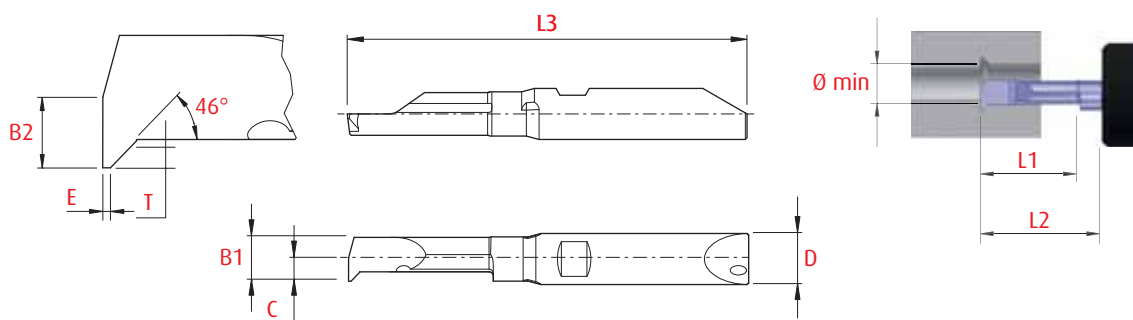
BF4... / BF6...

BCX



Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH4... BHY4...	L2 BHS4...	T	B	C	R	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN											
BF4R/L-1030-BCX-R05	■	■	■	□	□	4	BH4... BHS4... BHY4...	1.0	3.0	10	8.5	0.15	0.90	0.70	0.05	32
BF4R/L-1050-BCX-R05	■	■	■	□	□				5.0	10	8.5	0.15	0.90	0.70	0.05	32
BF4R/L-1545-BCX-R05	■	■	■	□	□			1.5	4.5	10	8.5	0.23	1.35	0.75	0.05	32
BF4R/L-1575-BCX-R05	■	■	■	□	□				7.5	10	8.5	0.23	1.35	0.75	0.05	32
BF4R/L-2060-BCX-R05	■	■	■	□	□			2.0	6.0	10	8.5	0.30	1.80	1.15	0.05	32
BF4R/L-20100-BCX-R05	■	■	■	□	□				10.0	15	13.5	0.30	1.80	1.15	0.05	37
BF4R/L-2575-BCX-R10	■	■	■	□	□			2.5	7.5	10	8.5	0.38	2.25	1.30	0.10	32
BF4R/L-25125-BCX-R10	■	■	■	□	□				12.5	15	13.5	0.38	2.25	1.30	0.10	37
BF4R/L-3090-BCX-R10	■	■	■	□	□			3.0	9.0	15	13.5	0.45	2.70	1.35	0.10	37
BF4R/L-30150-BCX-R10	■	■	■	□	□				15.0	20	18.5	0.45	2.70	1.35	0.10	42
BF4R/L-35105-BCX-R10	■	■	■	□	□			3.5	10.5	15	13.5	0.53	3.15	1.60	0.10	37
BF4R/L-35175-BCX-R10	■	■	■	□	□				17.5	20	18.5	0.53	3.15	1.60	0.10	42

Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH6... BHY6...	L2 BHS6...	T	B	C	R	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN											
BF6R/L-40120-BCX-R15	■	■	■	□	□	6	BH6... BHS6... BHY6...	4.0	12.0	20	18.5	0.60	3.80	2.20	0.15	47
BF6R/L-40200-BCX-R15	■	■	■	□	□				20.0	30	28.5	0.60	3.80	2.20	0.15	57
BF6R/L-45135-BCX-R15	■	■	■	□	□			4.5	13.5	20	18.5	0.68	4.28	2.30	0.15	47
BF6R/L-45225-BCX-R15	■	■	■	□	□				22.5	30	28.5	0.68	4.28	2.30	0.15	57
BF6R/L-50150-BCX-R15	■	■	■	□	□			5.0	15.0	20	18.5	0.75	4.75	2.40	0.15	47
BF6R/L-50250-BCX-R15	■	■	■	□	□				25.0	30	28.5	0.75	4.75	2.40	0.15	57
BF6R/L-55165-BCX-R15	■	■	■	□	□			5.5	16.5	20	18.5	0.83	5.15	2.60	0.15	47
BF6R/L-55275-BCX-R15	■	■	■	□	□				27.5	30	28.5	0.83	5.15	2.60	0.15	57



Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH4... BHY4...	L2 BHS4...	T	B1	B2	C	E	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN												
BB4R/L-0306-C45-E03	■	■	■	□	□	4	BH4... BHS4... BHY4...	0.3	0.6	10	8.5	0.05	0.27	0.13	0.15	0.03	32
BB4R/L-0408-C45-E03	■	■	■	□	□			0.4	0.8	10	8.5	0.07	0.36	0.18	0.20	0.03	32
BB4R/L-0510-C45-E03	■	■	■	□	□			0.5	1.0	10	8.5	0.08	0.45	0.22	0.25	0.03	32
BB4R/L-0816-C45-E05	■	■	■	□	□			0.8	1.6	10	8.5	0.14	0.72	0.36	0.40	0.05	32
BB4R/L-1030-C45-E10	■	■	■	□	□			1.0	3.0	10	8.5	0.17	0.90	0.45	0.70	0.10	32
BB4R/L-1545-C45-E10	■	■	■	□	□			1.5	4.5	10	8.5	0.25	1.35	0.67	0.75	0.10	32
BB4R/L-2060-C45-E20	■	■	■	□	□			2.0	6.0	10	8.5	0.34	1.80	0.90	1.15	0.20	32
BB4R/L-3090-C45-E30	■	■	■	□	□			3.0	9.0	15	13.5	0.51	2.70	1.35	1.35	0.30	37

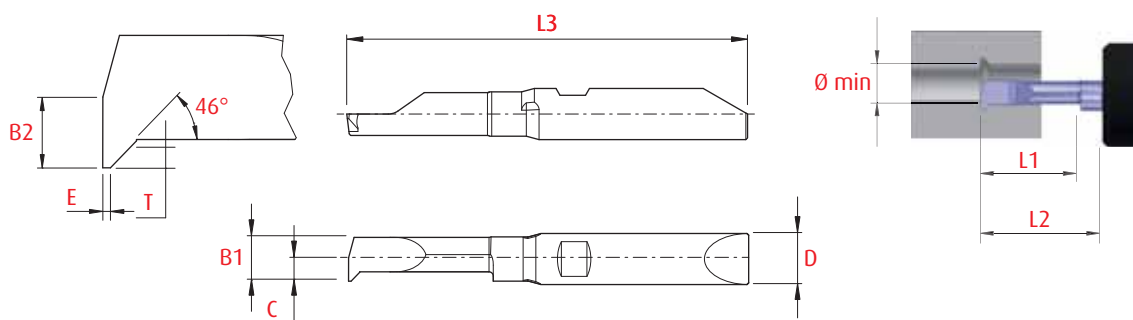
Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH6... BHY6...	L2 BHS6...	T	B1	B2	C	E	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN												
BB6R/L-40120-C45-E40	■	■	■	□	□	6	BH6...	4.0	12.0	20	18.5	0.68	3.80	1.90	2.30	0.40	47
BB6R/L-50150-C45-E50	■	■	■	□	□		BHS6... BHY6...	5.0	15.0	20	18.5	0.85	4.75	2.37	2.50	0.50	47

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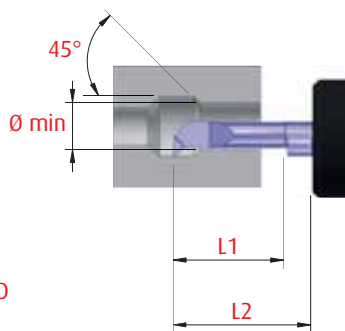
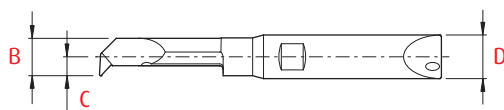
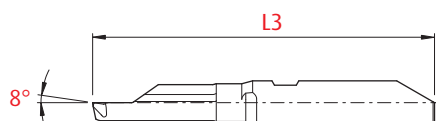
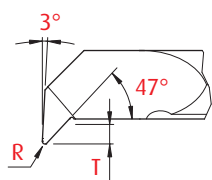
BF4... / BF6...

C45



Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH4... BHY4...	L2 BHS4...	T	B1	B2	C	E	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN												
BF4R/L-0306-C45-E03	■	■	■	□	□	4	BH4... BHS4... BHY4...	0.3	0.6	10	8.5	0.05	0.27	0.13	0.15	0.03	32
BF4R/L-0408-C45-E03	■	■	■	□	□			0.4	0.8	10	8.5	0.07	0.36	0.18	0.20	0.03	32
BF4R/L-0510-C45-E03	■	■	■	□	□			0.5	1.0	10	8.5	0.08	0.45	0.22	0.25	0.03	32
BF4R/L-0816-C45-E05	■	■	■	□	□			0.8	1.6	10	8.5	0.14	0.72	0.36	0.40	0.05	32
BF4R/L-1030-C45-E10	■	■	■	□	□			1.0	3.0	10	8.5	0.17	0.90	0.45	0.70	0.10	32
BF4R/L-1545-C45-E10	■	■	■	□	□			1.5	4.5	10	8.5	0.25	1.35	0.67	0.75	0.10	32
BF4R/L-2060-C45-E20	■	■	■	□	□			2.0	6.0	10	8.5	0.34	1.80	0.90	1.15	0.20	32
BF4R/L-3090-C45-E30	■	■	■	□	□			3.0	9.0	15	13.5	0.51	2.70	1.35	1.35	0.30	37

Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH6... BHY6...	L2 BHS6...	T	B1	B2	C	E	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN												
BF6R/L-40120-C45-E40	■	■	■	□	□	6	BH6... BHS6... BHY6...	4.0	12.0	20	18.5	0.68	3.80	1.90	2.30	0.40	47
BF6R/L-50150-C45-E50	■	■	■	□	□			5.0	15.0	20	18.5	0.85	4.75	2.37	2.50	0.50	47



Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH4... BHY4...	L2 BHS4...	T	B	C	R	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN											
BB4R/L-2575-C45X-R10	■	■	■	□	□	4	BH4... BHS4... BHY4...	2.5	7.5	10	8.5	0.50	2.25	1.35	0.10	32
BB4R/L-25125-C45X-R10	■	■	■	□	□				12.5	15	13.5	0.50	2.25	1.35	0.10	37
BB4R/L-3090-C45X-R10	■	■	■	□	□			3.0	9.0	15	13.5	0.60	2.70	1.45	0.10	37
BB4R/L-30150-C45X-R10	■	■	■	□	□				15.0	20	18.5	0.60	2.70	1.45	0.10	42
BB4R/L-35105-C45X-R10	■	■	■	□	□			3.5	10.5	15	13.5	0.70	3.15	1.60	0.10	37
BB4R/L-35175-C45X-R10	■	■	■	□	□				17.5	20	18.5	0.70	3.15	1.60	0.10	42

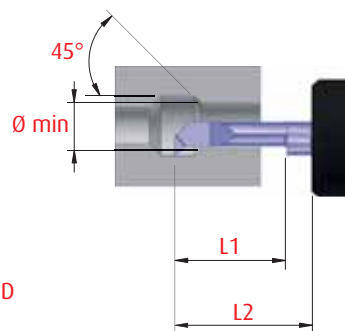
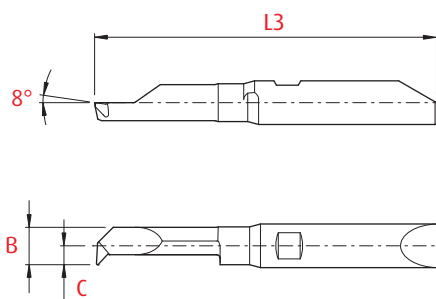
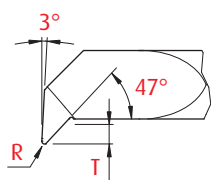
Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH6... BHY6...	L2 BHS6...	T	B	C	R	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN											
BB6R/L-40120-C45X-R15	■	■	■	□	□	6	BH6... BHS6... BHY6...	4.0	12.0	20	18.5	0.80	3.80	2.30	0.15	47
BB6R/L-40200-C45X-R15	■	■	■	□	□				20.0	30	28.5	0.80	3.80	2.30	0.15	57
BB6R/L-45135-C45X-R15	■	■	■	□	□			4.5	13.5	20	18.5	0.90	4.28	2.40	0.15	47
BB6R/L-45225-C45X-R15	■	■	■	□	□				22.5	30	28.5	0.90	4.28	2.40	0.15	57
BB6R/L-50150-C45X-R15	■	■	■	□	□			5.0	15.0	20	18.5	1.00	4.75	2.50	0.15	47
BB6R/L-50250-C45X-R15	■	■	■	□	□				25.0	30	28.5	1.00	4.75	2.50	0.15	57
BB6R/L-55165-C45X-R15	■	■	■	□	□			5.5	16.5	20	18.5	1.10	5.15	2.60	0.15	47
BB6R/L-55275-C45X-R15	■	■	■	□	□				27.5	30	28.5	1.10	5.15	2.60	0.15	57

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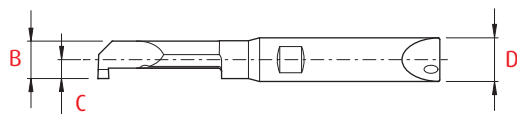
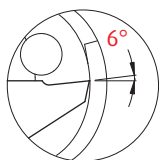
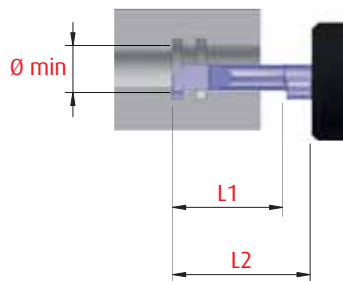
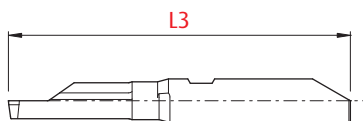
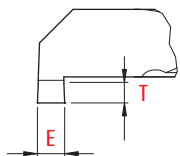
BF4... / BF6...

C45X



Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH4... BHY4...	L2 BHS4...	T	B	C	R	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN											
BF4R/L-2575-C45X-R10	■	■	■	□	□	4	BH4... BHS4... BHY4...	2.5	7.5	10	8.5	0.50	2.25	1.35	0.10	32
BF4R/L-25125-C45X-R10	■	■	■	□	□				12.5	15	13.5	0.50	2.25	1.35	0.10	37
BF4R/L-3090-C45X-R10	■	■	■	□	□			3.0	9.0	15	13.5	0.60	2.70	1.45	0.10	37
BF4R/L-30150-C45X-R10	■	■	■	□	□				15.0	20	18.5	0.60	2.70	1.45	0.10	42
BF4R/L-35105-C45X-R10	■	■	■	□	□			3.5	10.5	15	13.5	0.70	3.15	1.60	0.10	37
BF4R/L-35175-C45X-R10	■	■	■	□	□				17.5	20	18.5	0.70	3.15	1.60	0.10	42

Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH6... BHY6...	L2 BHS6...	T	B	C	R	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN											
BF6R/L-40120-C45X-R15	■	■	■	□	□	6	BH6... BHS6... BHY6...	4.0	12.0	20	18.5	0.80	3.80	2.30	0.15	47
BF6R/L-40200-C45X-R15	■	■	■	□	□				20.0	30	28.5	0.80	3.80	2.30	0.15	57
BF6R/L-45135-C45X-R15	■	■	■	□	□			4.5	13.5	20	18.5	0.90	4.28	2.40	0.15	47
BF6R/L-45225-C45X-R15	■	■	■	□	□				22.5	30	28.5	0.90	4.28	2.40	0.15	57
BF6R/L-50150-C45X-R15	■	■	■	□	□			5.0	15.0	20	18.5	1.00	4.75	2.50	0.15	47
BF6R/L-50250-C45X-R15	■	■	■	□	□				25.0	30	28.5	1.00	4.75	2.50	0.15	57
BF6R/L-55165-C45X-R15	■	■	■	□	□			5.5	16.5	20	18.5	1.10	5.15	2.60	0.15	47
BF6R/L-55275-C45X-R15	■	■	■	□	□				27.5	30	28.5	1.10	5.15	2.60	0.15	57



Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH4... BHY4...	L2 BHS4...	E	T	B	C	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN											
BB4R/L-3090-G050X	■	■	■	□	□	4	BH4... BHS4... BHY4...	3.0	9.0	15	13.5	0.50	0.60	2.70	1.45	37
BB4R/L-30150-G050X	■	■	■	□	□				15.0	20	18.5	0.50	0.60	2.70	1.45	42
BB4R/L-35105-G075X	■	■	■	□	□			3.5	10.5	15	13.5	0.75	0.70	3.15	1.60	37
BB4R/L-35175-G075X	■	■	■	□	□				17.5	20	18.5	0.75	0.70	3.15	1.60	42

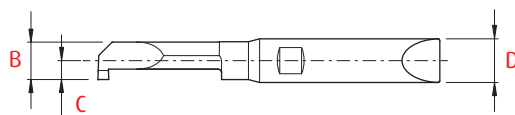
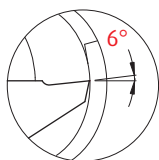
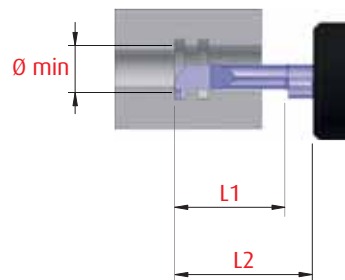
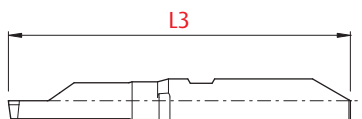
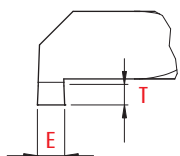
Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH6... BHY6...	L2 BHS6...	E	T	B	C	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN											
BB6R/L-40120-G100X	■	■	■	□	□	6	BH6... BHS6... BHY6...	4.0	12.0	20	18.5	1.00	0.80	3.80	2.20	47
BB6R/L-40200-G100X	■	■	■	□	□				20.0	30	28.5	1.00	0.80	3.80	2.20	57
BB6R/L-45135-G100X	■	■	■	□	□			4.5	13.5	20	18.5	1.00 1.50	0.90	4.28	2.40	47
BB6R/L-45225-G100X	■	■	■	□	□				22.5	30	28.5	1.00 1.50	0.90	4.28	2.40	57
BB6R/L-45225-G150X	■	■	■	□	□			5.0	15.0	20	18.5	1.00 1.50	1.00	4.75	2.50	47
BB6R/L-50150-G100X	■	■	■	□	□				25.0	30	28.5	1.00 1.50	1.00	4.75	2.50	57
BB6R/L-50250-G100X	■	■	■	□	□			5.5	16.5	20	18.5	1.00 1.50 2.00	1.10	5.15	2.60	47
BB6R/L-50250-G150X	■	■	■	□	□				27.5	30	28.5	1.00 1.50 2.00	1.10	5.15	2.60	57
BB6R/L-55165-G100X	■	■	■	□	□											
BB6R/L-55165-G150X	■	■	■	□	□											
BB6R/L-55165-G200X	■	■	■	□	□											
BB6R/L-55275-G100X	■	■	■	□	□											
BB6R/L-55275-G150X	■	■	■	□	□											
BB6R/L-55275-G200X	■	■	■	□	□											

Gorge
Einstechen
Grooving



BF4... / BF6...

GX



Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH4... BHY4...	L2 BHS4...	E	T	B	C	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN											
BF4R/L-3090-G050X	■	■	■	□	□	4	BH4... BHS4... BHY4...	3.0	9.0	15	13.5	0.50	0.60	2.70	1.45	37
BF4R/L-30150-G050X	■	■	■	□	□				15.0	20	18.5	0.50	0.60	2.70	1.45	42
BF4R/L-35105-G075X	■	■	■	□	□			3.5	10.5	15	13.5	0.75	0.70	3.15	1.60	37
BF4R/L-35175-G075X	■	■	■	□	□				17.5	20	18.5	0.75	0.70	3.15	1.60	42

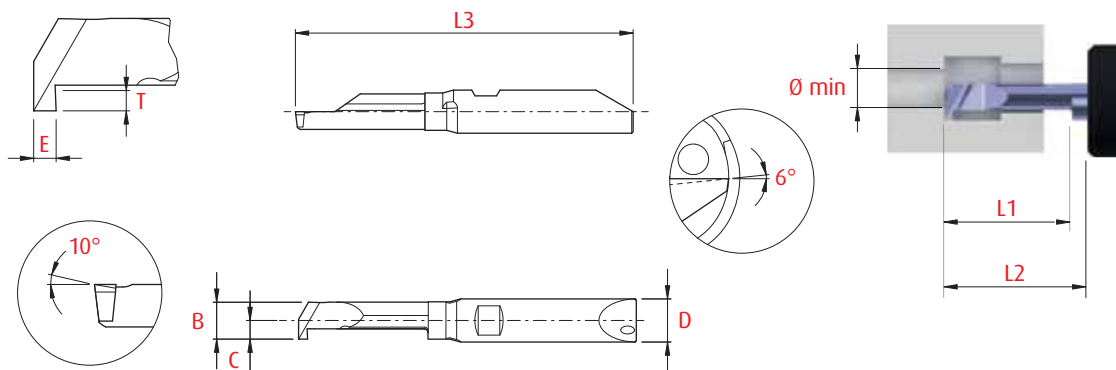
Art. N°	R			L		D h5	Holder	Ø min	L1	L2 BH6... BHY6...	L2 BHS6...	E	T	B	C	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN											
BF6R/L-40120-G100X	■	■	■	□	□	6	BH6... BHS6... BHY6...	4.0	12.0	20	18.5	1.00	0.80	3.80	2.20	47
BF6R/L-40200-G100X	■	■	■	□	□				20.0	30	28.5	1.00	0.80	3.80	2.20	57
BF6R/L-45135-G100X	■	■	■	□	□			4.5	13.5	20	18.5	1.00	0.90	4.28	2.40	47
BF6R/L-45135-G150X	■	■	■	□	□				22.5	30	28.5	1.50	0.90	4.28	2.40	57
BF6R/L-45225-G100X	■	■	■	□	□			5.0	15.0	20	18.5	1.00	1.00	4.75	2.50	47
BF6R/L-45225-G150X	■	■	■	□	□				25.0	30	28.5	1.50	1.00	4.75	2.50	57
BF6R/L-50150-G100X	■	■	■	□	□			5.5	16.5	20	18.5	1.00	1.10	5.15	2.60	47
BF6R/L-50150-G150X	■	■	■	□	□				27.5	30	28.5	1.50	1.10	5.15	2.60	57
BF6R/L-50250-G100X	■	■	■	□	□			5.5	16.5	20	18.5	1.00	1.10	5.15	2.60	47
BF6R/L-50250-G150X	■	■	■	□	□				27.5	30	28.5	1.50	1.10	5.15	2.60	57
BF6R/L-55165-G100X	■	■	■	□	□			5.5	16.5	20	18.5	1.00	1.10	5.15	2.60	47
BF6R/L-55165-G150X	■	■	■	□	□				27.5	30	28.5	1.50	1.10	5.15	2.60	57
BF6R/L-55165-G200X	■	■	■	□	□			5.5	16.5	20	18.5	1.00	1.10	5.15	2.60	47
BF6R/L-55275-G100X	■	■	■	□	□				27.5	30	28.5	1.50	1.10	5.15	2.60	57
BF6R/L-55275-G150X	■	■	■	□	□				27.5	30	28.5	1.50	1.10	5.15	2.60	57
BF6R/L-55275-G200X	■	■	■	□	□				27.5	30	28.5	2.00	1.10	5.15	2.60	57

Foncer-tourner
Einstechen und drehen
Grooving and turning



BB4... / BB6...

GTX



Art. N°	R			L	D h5	Holder	Ø min	L1	L2 BH4... BHY4...	L2 BHS4...	E	T	B	C	L3
	ZTAF	ZTAXF	ZN	ZTAF											
BB4R/L-3090-GT100X	■	■	■	□	4	BH4... BHS4... BHY4...	3.0	9.0	15	13.5	1.00	0.60	2.7	1.45	37
BB4R/L-30150-GT100X	■	■	■	□				15.0	20	18.5	1.00	0.60	2.7	1.45	42
BB4R/L-35105-GT100X	■	■	■	□				10.5	15	13.5	1.00	0.70	3.15	1.6	37
BB4R/L-35175-GT100X	■	■	■	□				17.5	20	18.5	1.00	0.70	3.15	1.6	42

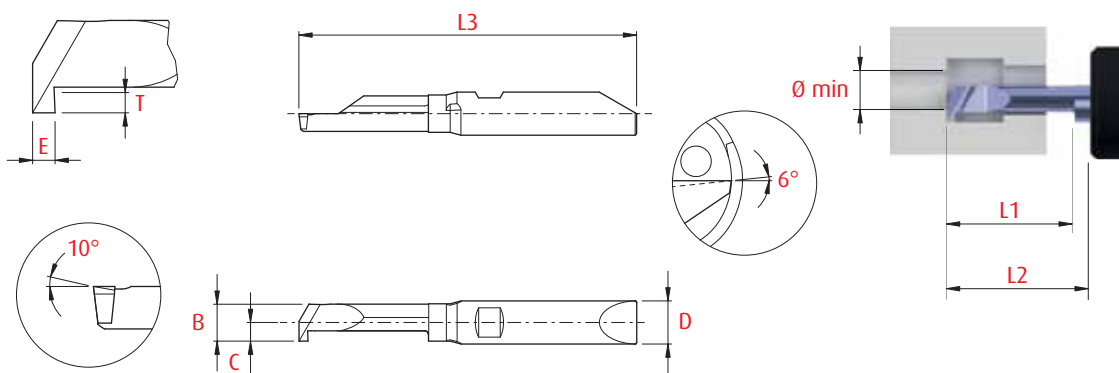
Art. N°	R			L	D h5	Holder	Ø min	L1	L2 BH6... BHY6...	L2 BHS6...	E	T	B	C	L3
	ZTAF	ZTAXF	ZN	ZTAF											
BB6R/L-40140-GT125X	■	■	■	□	6	BH6... BHS6... BHY6...	4.0	14.0	20	18.5	1.25	0.80	3.8	2.2	47
BB6R/L-40220-GT125X	■	■	■	□				22.0	30	28.5	1.25	0.80	3.8	2.2	57
BB6R/L-45160-GT125X	■	■	■	□			4.5	16.0	20	18.5	1.25	0.90	4.28	2.4	47
BB6R/L-45250-GT125X	■	■	■	□				25.0	30	28.5	1.25	0.90	4.28	2.4	57
BB6R/L-50175-GT125X	■	■	■	□			5.0	17.5	20	18.5	1.25	1.00	4.75	2.5	47
BB6R/L-50275-GT125X	■	■	■	□				27.5	30	28.5	1.25	1.00	4.75	2.5	57
BB6R/L-55175-GT125X	■	■	■	□			5.5	17.5	20	18.5	1.25	1.10	5.15	2.6	47
BB6R/L-55275-GT125X	■	■	■	□				27.5	30	28.5	1.25	1.10	5.15	2.6	57

Foncer-tourner
Einstechen und drehen
Grooving and turning



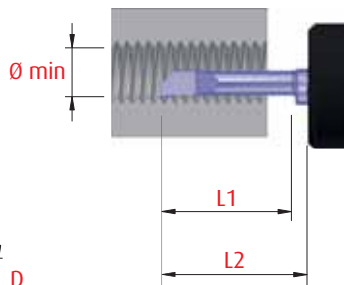
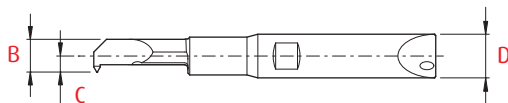
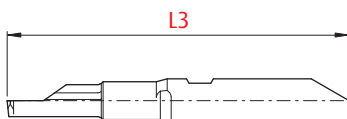
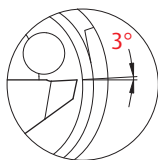
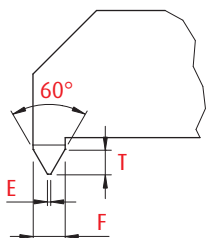
BF4... / BF6...

GTX



Art. N°	R			L		D _{hs}	Holder	Ø min	L1	L2 BH4... BHY4...	L2 BHS4...	E	T	B	C	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN											
BF4R/L-3090-GT100X	■	■	■	□	□	4	BH4... BHS4... BHY4...	3.0	9.0	15	13.5	1.00	0.60	2.7	1.45	37
BF4R/L-30150-GT100X	■	■	■	□	□				15.0	20	18.5	1.00	0.60	2.7	1.45	42
BF4R/L-35105-GT100X	■	■	■	□	□			3.5	10.5	15	13.5	1.00	0.70	3.15	1.6	37
BF4R/L-35175-GT100X	■	■	■	□	□				17.5	20	18.5	1.00	0.70	3.15	1.6	42

Art. N°	R			L		D _{hs}	Holder	Ø min	L1	L2 BH6... BHY6...	L2 BHS6...	E	T	B	C	L3
	ZTAF	ZTAXF	ZN	ZTAF	ZN											
BF6R/L-40140-GT125X	■	■	■	□	□	6	BH6... BHS6... BHY6...	4.0	14.0	20	18.5	1.25	0.80	3.8	2.2	47
BF6R/L-40220-GT125X	■	■	■	□	□				22.0	30	28.5	1.25	0.80	3.8	2.2	57
BF6R/L-45160-GT125X	■	■	■	□	□			4.5	16.0	20	18.5	1.25	0.90	4.28	2.4	47
BF6R/L-45250-GT125X	■	■	■	□	□				25.0	30	28.5	1.25	0.90	4.28	2.4	57
BF6R/L-50175-GT125X	■	■	■	□	□			5.0	17.5	20	18.5	1.25	1.00	4.75	2.5	47
BF6R/L-50275-GT125X	■	■	■	□	□				27.5	30	28.5	1.25	1.00	4.75	2.5	57
BF6R/L-55175-GT125X	■	■	■	□	□			5.5	17.5	20	18.5	1.25	1.10	5.15	2.6	47
BF6R/L-55275-GT125X	■	■	■	□	□				27.5	30	28.5	1.25	1.10	5.15	2.6	57



Art. N°	R		L		D h5	Holder	Ø min	L1	L2 BH4... BHY4...	L2 BHS4...	P (mm)	P (TPI)	F	E (0/-0.01)	T	B	C	L3
	ZTAF	ZN	ZTAF	ZN														
BB4R/L-1232-TP60	■	■	□	□	4	BH4... BHS4... BHY4...	1.25	3.2	10	8.5	0.20-0.35	80	0.30	0.02	0.25	1.10	0.80	32
BB4R/L-1640-TP60	■	■	□	□			1.6	4.0	10	8.5	0.25-0.40	72-64	0.35	0.03	0.28	1.41	0.90	32
BB4R/L-2560-TP60	■	■	□	□			2.5	6.0	10	8.5	0.35-0.50	56-48	0.44	0.04	0.34	2.25	1.35	32
BB4R/L-2590-TP60	■	■	□	□				9.0	15	13.5	0.35-0.50	56-48	0.44	0.04	0.34	2.25	1.35	37
BB4R/L-3380-TP60	■	■	□	□			3.3	8.0	15	13.5	0.50-0.75	40-36	0.62	0.06	0.48	2.97	1.50	37
BB4R/L-33120-TP60	■	■	□	□				12.0	15	13.5	0.50-0.75	40-36	0.62	0.06	0.48	2.97	1.50	37

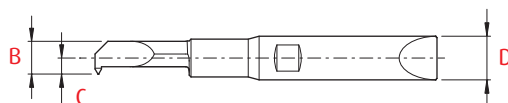
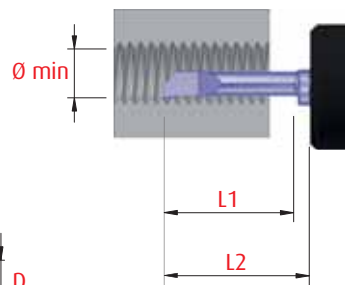
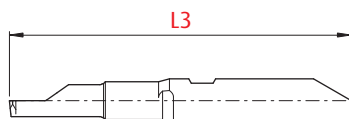
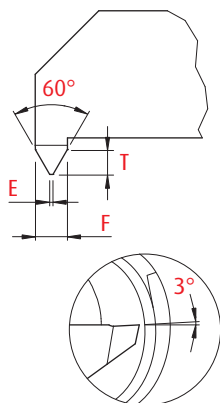
Art. N°	R		L		D h5	Holder	Ø min	L1	L2 BH6... BHY6...	L2 BHS6...	P (mm)	P (TPI)	F	E (0/-0.01)	T	B	C	L3
	ZTAF	ZN	ZTAF	ZN														
BB6R/L-42100-TP60	■	■	□	□	6	BH6... BHS6... BHY6...	4.2	10.0	20	18.5	0.50-0.80	36-32	0.70	0.06	0.55	3.78	2.10	47
BB6R/L-42150-TP60	■	■	□	□				15.0	20	18.5	0.50-0.80	36-32	0.70	0.06	0.55	3.78	2.10	47
BB6R/L-50120-TP60	■	■	□	□			5.0	12.0	20	18.5	0.75-1.00	28-24	0.89	0.09	0.69	4.50	2.20	47
BB6R/L-50180-TP60	■	■	□	□				18.0	20	18.5	0.75-1.00	28-24	0.89	0.09	0.69	4.50	2.20	47

Filetage
Gewindedrehen
Threading



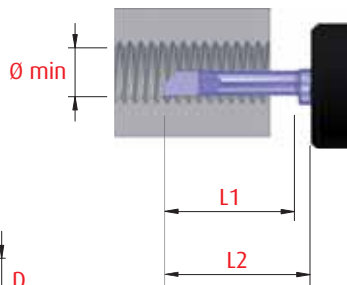
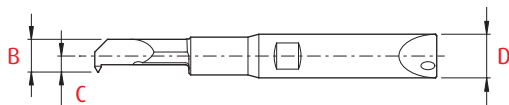
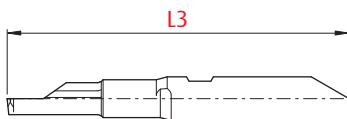
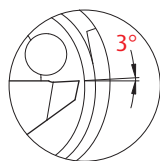
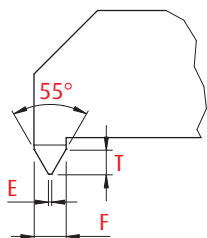
BF4... / BF6...

TP60



Art. N°	R		L		D _{h5}	Holder	Ø _{min}	L1	L2 BH4... BHY4...	L2 BHS4...	P (mm)	P (TPI)	F	E (0/-0.01)	T	B	C	L3
	ZTAF	ZN	ZTAF	ZN														
BF4R/L-1232-TP60	■	■	□	□	4	BH4... BHS4... BHY4...	1.25	3.2	10	8.5	0.20-0.35	80	0.30	0.02	0.25	1.10	0.80	32
BF4R/L-1640-TP60	■	■	□	□			1.6	4.0	10	8.5	0.25-0.40	72-64	0.35	0.03	0.28	1.41	0.90	32
BF4R/L-2560-TP60	■	■	□	□			2.5	6.0	10	8.5	0.35-0.50	56-48	0.44	0.04	0.34	2.25	1.35	32
BF4R/L-2590-TP60	■	■	□	□				9.0	15	13.5	0.35-0.50	56-48	0.44	0.04	0.34	2.25	1.35	37
BF4R/L-3380-TP60	■	■	□	□			3.3	8.0	15	13.5	0.50-0.75	40-36	0.62	0.06	0.48	2.97	1.50	37
BF4R/L-33120-TP60	■	■	□	□				12.0	15	13.5	0.50-0.75	40-36	0.62	0.06	0.48	2.97	1.50	37

Art. N°	R		L		D _{h5}	Holder	Ø _{min}	L1	L2 BH6... BHY6...	L2 BHS6...	P (mm)	P (TPI)	F	E (0/-0.01)	T	B	C	L3
	ZTAF	ZN	ZTAF	ZN														
BF6R/L-42100-TP60	■	■	□	□	6	BH6... BHS6... BHY6...	4.2	10.0	20	18.5	0.50-0.80	36-32	0.70	0.06	0.55	3.78	2.10	47
BF6R/L-42150-TP60	■	■	□	□				15.0	20	18.5	0.50-0.80	36-32	0.70	0.06	0.55	3.78	2.10	47
BF6R/L-50120-TP60	■	■	□	□			5.0	12.0	20	18.5	0.75-1.00	28-24	0.89	0.09	0.69	4.50	2.20	47
BF6R/L-50180-TP60	■	■	□	□				18.0	20	18.5	0.75-1.00	28-24	0.89	0.09	0.69	4.50	2.20	47



Art. N°	R		L		D _{h5}	Holder	Ø _{min}	L1	L2 BH4... BHY4...	L2 BHS4...	P (TPI)	F	E (0/-0.02)	T	B	C	L3
	ZTAF	ZN	ZTAF	ZN													
BB4R/L-1845-TP55	■	■	□	□	4	BH4...	1.85	4.5	10	8.5	48	0.54	0.09	0.44	1.67	0.97	32
BB4R/L-2560-TP55	■	■	□	□		BHS4... BHY4...	2.55	6.0	10	8.5	40	0.64	0.10	0.52	2.25	1.35	32

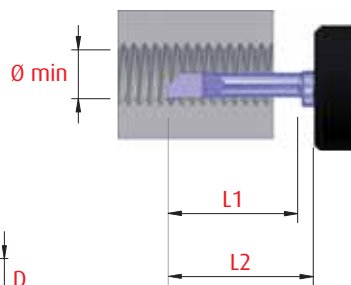
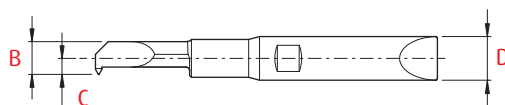
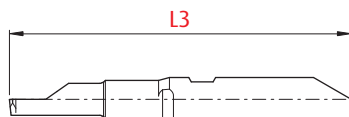
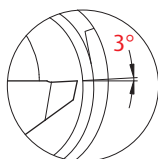
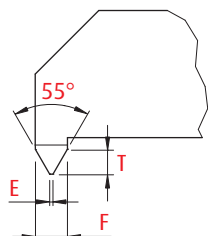
Art. N°	R		L		D _{h5}	Holder	Ø _{min}	L1	L2 BH6... BHY6...	L2 BHS6...	P (TPI)	F	E (0/-0.02)	T	B	C	L3
	ZTAF	ZN	ZTAF	ZN													
BB6R/L-37110-TP55	■	■	□	□	6	BH6...	3.70	11.0	20	18.5	32-24	1.08	0.13	0.91	3.33	1.83	47
BB6R/L-51150-TP55	■	■	□	□		BHS6...	5.10	15.0	20	18.5	26-20	1.30	0.16	1.09	4.60	2.05	47
BB6R/L-55160-TP55	■	■	□	□		BHY6...	5.50	16.0	20	18.5	22-16	1.48	0.19	1.24	5.15	2.60	47

Filetage
Gewindedrehen
Threading



BF4... / BF6...

TP55

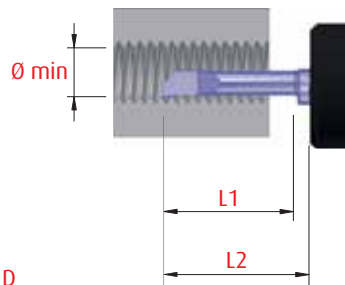
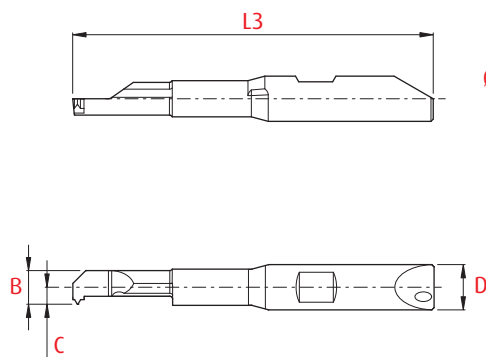
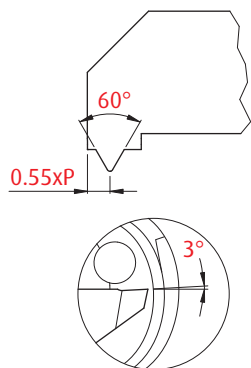


Art. N°	R		L		D _{h5}	Holder	Ø _{min}	L1	L2 BH4... BHY4...	L2 BHS4...	P (TPI)	F	E (0/-0.02)	T	B	C	L3
	ZTAF	ZN	ZTAF	ZN													
BF4R/L-1845-TP55	■	■	□	□	4	BH4...	1.85	4.5	10	8.5	48	0.54	0.09	0.44	1.67	0.97	32
BF4R/L-2560-TP55	■	■	□	□		BHS4... BHY4...	2.55	6.0	10	8.5	40	0.64	0.10	0.52	2.25	1.35	32

Art. N°	R		L		D _{h5}	Holder	Ø _{min}	L1	L2 BH6... BHY6...	L2 BHS6...	P (TPI)	F	E (0/-0.02)	T	B	C	L3
	ZTAF	ZN	ZTAF	ZN													
BF6R/L-37110-TP55	■	■	□	□	6	BH6...	3.70	11.0	20	18.5	32-24	1.08	0.13	0.91	3.33	1.83	47
BF6R/L-51150-TP55	■	■	□	□		BHS6...	5.10	15.0	20	18.5	26-20	1.30	0.16	1.09	4.60	2.05	47
BF6R/L-55160-TP55	■	■	□	□		BHY6...	5.50	16.0	20	18.5	22-16	1.48	0.19	1.24	5.15	2.60	47



Profil complet métrique
Vollprofil metrisch
Full profile metric



Art. N°	R		D h5	Holder	M (min)	Ø min	P (mm)	L1	L2 BH4... BHY4...	L2 BHS4...	B	C	L3
	ZTAF	ZN											
BB4R-2560-TM-0.50	■	■	4	BH4... BHS4...	M3x0.5	2.50	0.50	6.0	10	8.5	2.25	1.35	32
BB4R-3380-TM-0.70	■	■		BHY4...	M4x0.7	3.30	0.70	8.0	15	13.5	2.97	1.50	37

Art. N°	ZTAF	ZN	D h5	Holder	M (min)	Ø min	P (mm)	L1	L2 BH6... BHY6...	L2 BHS6...	B	C	L3
BB6R-42100-TM-0.80	■	■	6	BH6... BHS6...	M5x0.8	4.20	0.80	10.0	20	18.5	3.78	2.10	47
BB6R-50120-TM-1.00	■	■		BHY6...	M6x1.0	5.00	1.00	12.0	20	18.5	4.50	2.20	47

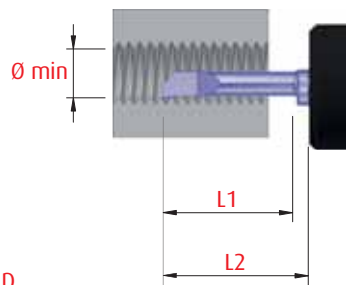
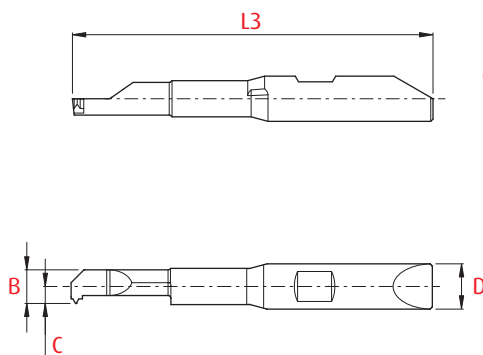
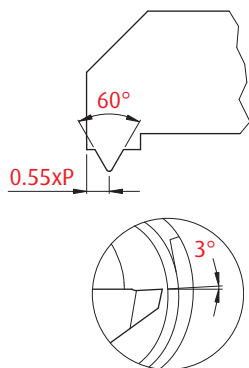
Filetage
Gewindedrehen
Threading



BF4... / BF6...

TM

Profil complet métrique
Vollprofil metrisch
Full profile metric



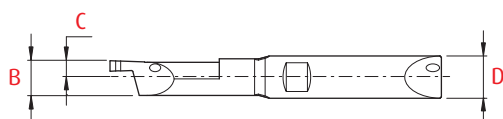
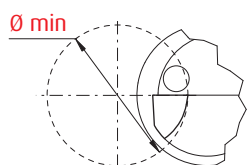
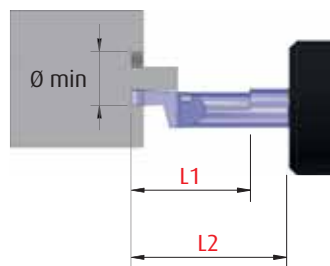
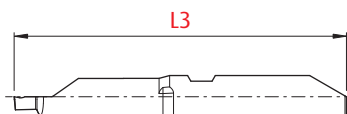
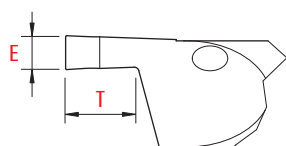
Art. N°	R		D h5	Holder	M (min)	Ø min	P (mm)	L1	L2	L2	B	C	L3
	ZTAF	ZN							BH4... BHY4...	BHS4...			
BF4R-2560-TM-0.50	■	■	4	BH4...	M3x0.5	2.50	0.50	6.0	10	8.5	2.25	1.35	32
BF4R-3380-TM-0.70	■	■		BHS4... BHY4...	M4x0.7	3.30	0.70	8.0	15	13.5	2.97	1.50	37
Art. N°	R		D h5	Holder	M (min)	Ø min	P (mm)	L1	L2	L2	B	C	L3
	ZTAF	ZN							BH6... BHY6...	BHS6...			
BF6R-42100-TM-0.80	■	■	6	BH6...	M5x0.8	4.20	0.80	10.0	20	18.5	3.78	2.10	47
BF6R-50120-TM-1.00	■	■		BHS6... BHY6...	M6x1.0	5.00	1.00	12.0	20	18.5	4.50	2.20	47

Gorge frontale extérieure
Aussen axiales stechen
External axial grooving



BB6...

FEG



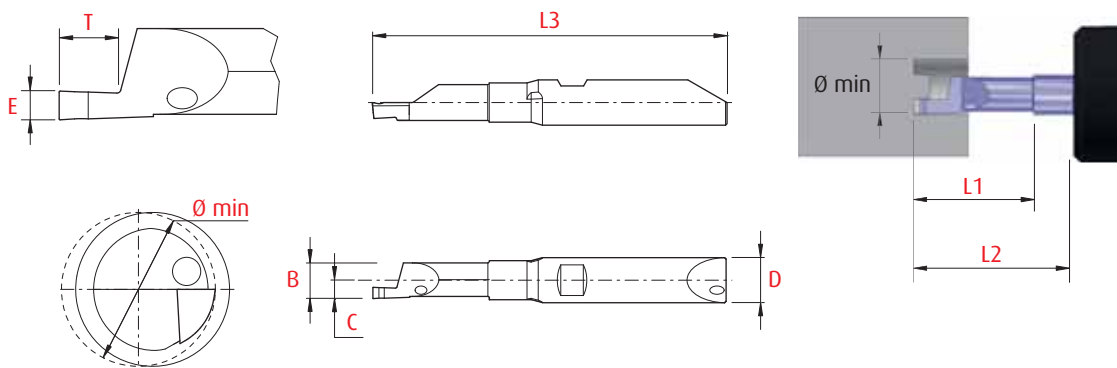
Art. N°	R		D h5	Holder	Ø min	L1	L2 BH6... BHY6...	L2 BHS6...	T	B	C	E	L3
	ZTAF	ZN											
BB6R-50150-FEG150X	■	■	6	BH6... BHS6... BHY6...	5.0	15.0	20	18.5	3.00	4.90	2.30	1.50	47

Gorge frontale intérieure
Innen axiales stechen
Internal axial grooving



BB6...

FIG



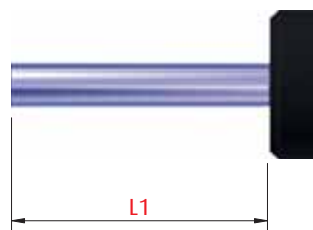
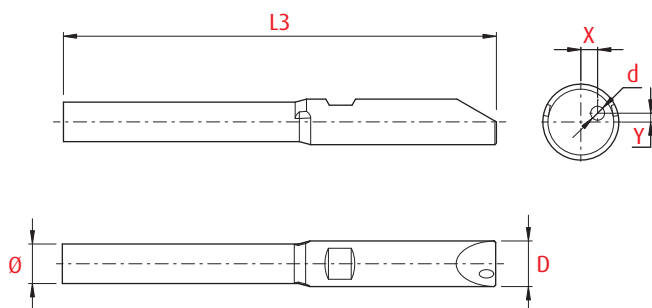
Art. N°	R		D h5	Holder	Ø min	L1	L2 BH6... BHY6...	L2 BHS6...	T	B	C	E	L3
	ZTAF	ZN											
BB6R-50150-FIG150X	■	■	6	BH6... BHS6... BHY6...	5.0	15.0	20	18.5	3.00	4.75	2.45	1.50	47

Ebauches avec arrosage
Rohlinge mit Kühlung
Blanks with coolant



BB4... / BB6...

BB_E

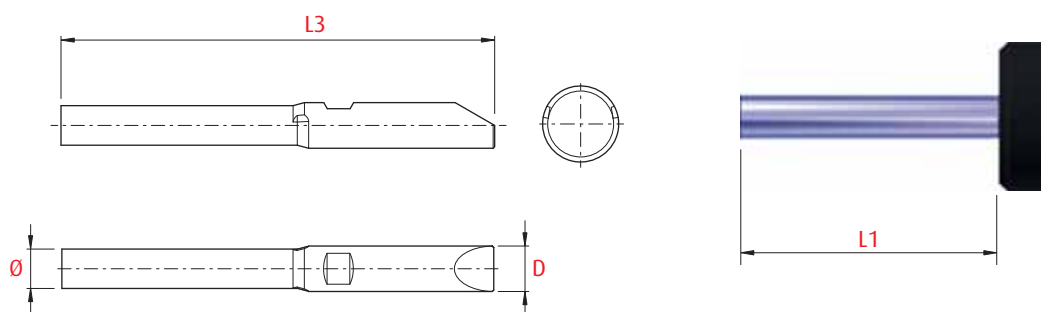


Art. N°	ZN	D h5	Holder	L1 BH4... BHY4...	L1 BHS4...	Ø	X	Y	d	L3
BB4R-E42	■	4	BH4... BHS4... BHY4...	20.0	18.5	3.20	0.84	0.55	0.85	42

Art. N°	ZN	D h5	Holder	L1 BH6... BHY6...	L1 BHS6...	Ø	X	Y	d	L3
BB6R-E57	■	6	BH6... BHS6... BHY6...	30.0	28.5	5.20	1.33	0.70	1.10	57

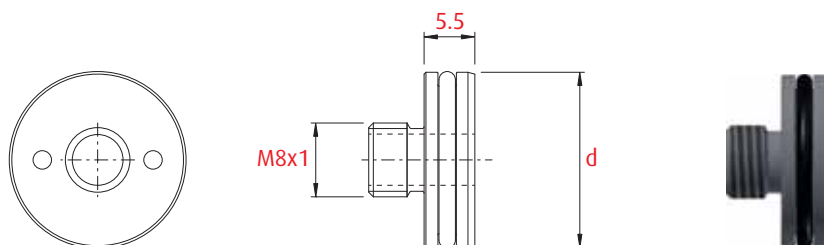
**Ebauches
Rohlinge
Blanks**


BF4... / BF6...

BF_E


Art. N°	ZN	D h5	Holder	L1 BH4... BHY4...	L1 BHS4...	Ø	L3
BF4-E42	■	4	BH4... BHS4... BHY4...	20.0	18.5	3.20	42

Art. N°	ZN	D h5	Holder	L1 BH6... BHY6...	L1 BHS6...	Ø	L3
BF6-E57	■	6	BH6... BHS6... BHY6...	30.0	28.5	5.20	57



Art. N°		d
JB-M8x1-D19.05	■	19.05
JB-M8x1-D20	■	20
JB-M8x1-D22	■	22
JB-M8x1-D25	■	25
JB-M8x1-D25.4	■	25.4

■ = disponible / verfügbar / available

□ = selon disponibilité du stock / je nach Lagerverfügbarkeit / depending the stock availability

Conditions générales de vente et de livraison

Verkaufs- und Lieferbedingungen

General terms of sale and delivery

Vente

Le contrat de vente est conclu sur la base d'une confirmation écrite de la commande ou par la livraison de la marchandise. Aucune compensation n'est accordée lors d'un éventuel retard de livraison.

Verkauf

Der Kaufvertrag gilt erst aufgrund einer schriftlichen Auftragsbestätigung oder mit der Auslieferung der Ware als abgeschlossen. Im Fall einer Lieferverzögerung wird keine Kompensation bewilligt.

Contract of sale

The contract of sale shall be deemed concluded upon written confirmation of the order or delivery of the goods only. In case of late delivery, no compensation is given.

Prix et livraison

Les prix sont nets départ usine. Les emballages ne sont pas compris dans le prix.

Preis und Lieferung

Die Preise verstehen sich netto ab Werk. Die Verpackung ist im Preis nicht inbegriffen.

Prices and shipment

All prices are ex factory. Packaging are not included in the prices.

Conditions de paiement

Sont valables, les conditions de paiement figurant en bas de la facture. Nous nous réservons le droit de propriété de la marchandise livrée jusqu'à réception du paiement intégral de celle-ci.

Zahlungsbedingungen

Die Zahlungsbedingungen sind gültig, welche auf der Rechnung erwähnt sind. Bis zur vollständigen Bezahlung behalten wir uns das Eigentum an der gelieferten Ware vor.

Terms of payment

Are valid the terms of payment mentioned on the invoice. We retain title to the goods delivered until full payment thereof.

Réclamations

Toute réclamation doit être communiquée par écrit dans un délai de 7 jours dès réception de la marchandise. En cas de produits défectueux ou non conformes aux spécifications et tolérances usuelles applicables en la matière, la limite de notre garantie s'étend au remplacement des produits défectueux retournés. Nous déclinons toute responsabilité pour tout autre dommage direct ou indirect ou dommage consécutif que ce soit d'ordre contractuel ou délictuel y compris par négligence ou autre.

Beanstandungen

Beanstandungen sind innert 7 Tagen seit Empfang der Ware schriftlich anzumelden. Im Fall von defekten Produkten oder Abweichungen von branchenüblichen Spezifikationen und Toleranzen, beschränkt sich die Garantie auf den Ersatz der zurückgesandten Produkte. Wir lehnen jede Haftung für weitere direkte oder indirekte Schäden oder Folgeschäden ab, weder auf Grund vertraglicher oder Verschuldenshaftung einschliesslich Fahrlässigkeit oder anderes.

Complaints

Any complaints shall be addressed within 1 week upon receipt of the goods. In the event that products are defective or do not comply with specifications and tolerances applicable in the relevant industry, the warranty is limited to the replacement of the returned products. We shall not be liable for any other direct or indirect damages or consequential damages whether in contract, tort including negligence or otherwise.

Fabrications spéciales

Toutes les exécutions spéciales sont soumises à un plan ou à vos indications précises. En aucun cas les outils ne pourront être repris. Nous nous gardons la possibilité de livrer +/- 10% de la quantité commandée, mais au minimum 1 pièce.

Spezialanfertigungen

Spezialanfertigungen werden nur auf Grund eines Planes oder Ihrer genauesten Angaben angefertigt. Die Werkzeuge werden unter keinen Umständen durch uns zurückgenommen. Wir behalten uns vor +/-10% der bestellten Menge zu liefern, aber im Minimum 1 Stück.

Special tools

Every special tools are produced with a draw or specifics indications given by the customer. In any case the pieces will be took back by Alfatool. We keep the possibility to deliver +/- 10% of the ordered quantity, but in minimum 1 item.

Le for juridique est Moutier – Suisse.

Gerichtstand ist Moutier – Schweiz.

Sole place of jurisdiction is Moutier – Switzerland.

Because quality requires precision...



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