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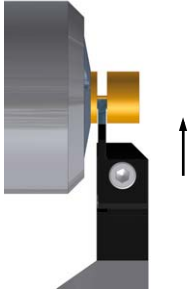
<p><i>rigid clamping system</i></p>	Ø max 34 mm	H	2.04
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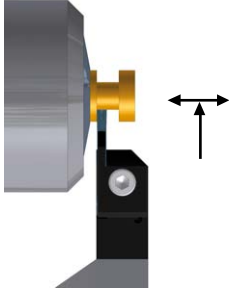
Nuances des plaquettes Wendeplatte-Sorten PVD thin coating

TiAlN revêtement PVD PVD Beschichtung PVD coating	<i>new</i> HTA revêtement PVD PVD Beschichtung PVD coating	Tmax revêtement PVD PVD Beschichtung PVD coating
nuance universelle bonne résistance aux chocs pour l'usinage des aciers, aciers inoxydables et alliages de titane en conditions défavorables	excellente nuance universelle très bonne résistance à l'usure 1er choix pour le tronçonnage des aciers, aciers inoxydables et alliages de titane	nuance pour usinage moyen à lourd des aciers, aciers alliés et inoxydables bonne résistance aux températures d'usinage élevées 1er choix pour le tronçonnage des aciers au carbone et des aciers fortement alliés
Universalsorte gute Bruchfestigkeit für die Bearbeitung von Stahl, rostfreiem Stahl und Titanlegierungen in schwierige Bearbeitungsfälle	beste Universalsorte sehr gute Verschleissfestigkeit für die Bearbeitung von Stahl, rostfreiem Stahl und Titanlegierung bestens geeignet	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
universal grade good impact resistance for machining of steel, stainless steel and titanium alloys in unfavourable machining conditions	best universal grade very good wear resistance first choice for steel, stainless steel and titanium alloys machining	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

<i>new</i> HTX revêtement PVD PVD Beschichtung PVD coating	AS revêtement PVD PVD Beschichtung PVD coating
nuance complémentaire hautement résistante à l'usure pour l'usinage des aciers à forte abrasion pour le tronçonnage avec faible avance des aciers au carbone, fortement alliés et inoxydables fortement déconseillé en coupe interrompue	nuance pour métaux non ferreux très faible coefficient de frottement 1er choix pour l'usinage des aluminiums jusqu'à 10 % Si, des cuivres et titanes faiblement alliés
Zusätzliche Sorte mit hoher Verschleissfestigkeit in Stahlbearbeitung für die Bearbeitung bei niedrigen Vorschüben von legiertem Kohlenstahl und hoch legiertem Stahl bestens geeignet in unterbrochenen Schnitte nicht geeignet	Sorte für Nichteisenmetalle sehr geringer Reibwert für die Bearbeitung von Aluminium bis 10% Si, Kupfer und niedriglegiertem Titan bestens geeignet
complementary grade highly wear resistant for machining for steel with high abrasion for machining with low cutting feed for carbon steel, high alloyed steel and stainless steel not suitable for interrupted cut	grade for non-ferrous materials very low friction ratio first choice for Aluminium up to 10 % Si, Copper and low alloyed Titanium

Paramètres de coupe indicatifs
Empfohlene Schnittwerte
Standard machining data

Tronçonnage Abstechen Cut off	Matière Werkstoff Material	Vc (m/min)	Géométries de coupe Spanformgeometrien cutting geometries	
			Type U F (mm/U)	Type T F (mm/U)
	Acier de décolletage Automatenstahl Free-cutting steel	80 - 150	0.02 - 0.10	0.10 - 0.20
	Acier Stahl Steel < 600 N/mm2	70 - 120	0.02 - 0.08	0.10 - 0.20
	Acier Stahl Steel < 800 N/mm2	60 - 100	0.02 - 0.06	0.10 - 0.18
	Acier Stahl Steel > 800 N/mm2	40 - 80	0.02 - 0.05	0.08 - 0.15
	Acier inoxydable Rostfreistahl Stainless steel	60 - 100	0.02 - 0.10	0.08 - 0.20
	Aluminium	150 - 300	0.02 - 0.15	-
	Titane Titan Titanium	30 - 60	0.02 - 0.08	-
	Cuivre, laiton, bronze Kupfer, Messing, Bronze Copper, brass, bronze	100 - 300	0.02 - 0.10	0.08 - 0.20

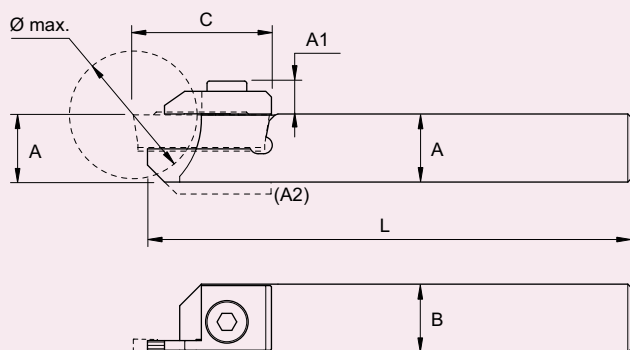
Tournage Drehen Turning	Matière Werkstoff Material	Vc (m/min)	Type G	
			CUT22 F (mm/U)	CUT31 F (mm/U)
	Acier de décolletage Automatenstahl Free-cutting steel	100 - 200	0.03 - 0.12	0.04 - 0.15
	Acier Stahl Steel < 600 N/mm2	80 - 160	0.03 - 0.10	0.04 - 0.12
	Acier Stahl Steel < 800 N/mm2	60 - 120	0.03 - 0.08	0.04 - 0.10
	Acier Stahl Steel > 800 N/mm2	50 - 100	0.03 - 0.07	0.04 - 0.08
	Acier inoxydable Rostfreistahl Stainless steel	60 - 120	0.03 - 0.08	0.04 - 0.10
	Aluminium	180 - 400	0.03 - 0.12	0.04 - 0.15
	Titane Titan Titanium	40 - 70	0.03 - 0.08	0.04 - 0.10
	Cuivre, laiton, bronze Kupfer, Messing, Bronze Copper, brass, bronze	100 - 400	0.03 - 0.10	0.04 - 0.12

Ø max 34 mm

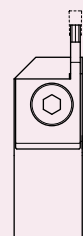
Porte-outils

Halter

Holders



L



R



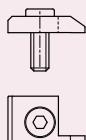
Plaquette WSP Insert	A x B x L	Ø max.	A1	C	Art. N°	Art. N°
W 1.6 mm Type CUT16	8 x 10 x 115 (A2=2)	16	6.2	19.5	CUT16-H0810L	CUT16-H0810R
	10 x 10 x 115	16	6.2	19.5	CUT16-H1010L	CUT16-H1010R
	12 x 12 x 130	16	6.2	19.5	CUT16-H1212L	CUT16-H1212R
	12 x 12 x 90	16	6.2	19.5	CUT16-H1212L-90	CUT16-H1212R-90
	13 x 13 x 130	16	6.2	19.5	CUT16-H1313L	CUT16-H1313R
	16 x 16 x 130	16	6.2	19.5	CUT16-H1616L	CUT16-H1616R
	20 x 20 x 120	16	6.2	19.5	CUT16-H2020L	CUT16-H2020R
W 2.2 mm Type CUT22	10 x 12 x 115	20	6.4	24	CUT22-H1012L	CUT22-H1012R
	12 x 12 x 130	20	6.4	24	CUT22-H1212L	CUT22-H1212R
	12 x 12 x 90	20	6.4	24	CUT22-H1212L-90	CUT22-H1212R-90
	13 x 13 x 130	20	6.4	24	CUT22-H1313L	CUT22-H1313R
	16 x 16 x 130	20	6.4	24	CUT22-H1616L	CUT22-H1616R
	20 x 20 x 120	20	6.4	24	CUT22-H2020L	CUT22-H2020R
W 3.1 mm Type CUT31	16 x 16 x 130	34	7.8	35	CUT31-H1616L	CUT31-H1616R
	20 x 20 x 120	34	7.8	35	CUT31-H2020L	CUT31-H2020R
	25 x 25 x 140	34	7.8	35	CUT31-H2525L	CUT31-H2525R

Pièces de rechange

Ersatzteile

Spare parts

L



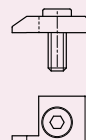
Art. N°

CUT16L-SET

CUT22L-SET

CUT31L-SET

R



Art. N°

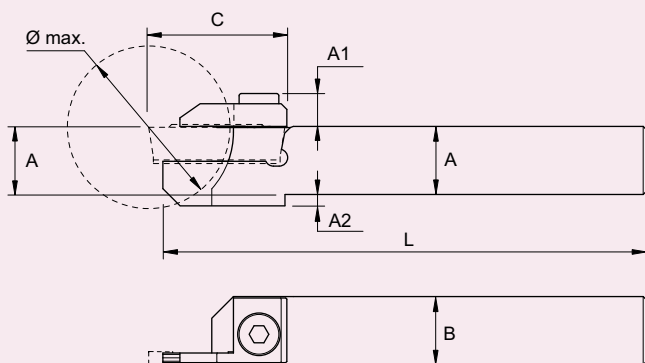
CUT16R-SET

CUT22R-SET

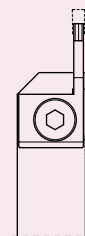
CUT31R-SET

Ø max 42 mm

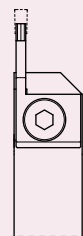
Porte-outils
Halter
Holders



L



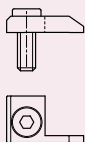
R



Plaquette WSP Insert	A x B x L	Ø max.	A1	C	A2	Art. N°	Art. N°
W 1.6 mm Type CUT16	10 x 12 x 115	20	6.2	21	2	CUT16-H1012LX	CUT16-H1012RX
	12 x 12 x 130	20	6.2	21	-	CUT16-H1212LX	CUT16-H1212RX
	12 x 12 x 90	20	6.2	21	-	CUT16-H1212LX-90	CUT16-H1212RX-90
	13 x 13 x 130	20	6.2	21	-	CUT16-H1313LX	CUT16-H1313RX
	16 x 16 x 130	20	6.2	21	-	CUT16-H1616LX	CUT16-H1616RX
	20 x 20 x 120	20	6.2	21	-	CUT16-H2020LX	CUT16-H2020RX
W 2.2 mm Type CUT22	10 x 12 x 115	26	6.4	25	4	CUT22-H1012LX	CUT22-H1012RX
	12 x 12 x 130	26	6.4	25	2	CUT22-H1212LX	CUT22-H1212RX
	12 x 12 x 90	26	6.4	25	2	CUT22-H1212LX-90	CUT22-H1212RX-90
	13 x 13 x 130	26	6.4	25	-	CUT22-H1313LX	CUT22-H1313RX
	16 x 16 x 130	26	6.4	25	-	CUT22-H1616LX	CUT22-H1616RX
	20 x 20 x 120	26	6.4	25	-	CUT22-H2020LX	CUT22-H2020RX
W 3.1 mm Type CUT31	16 x 16 x 120	42	7.8	37	4	CUT31-H1616LX	CUT31-H1616RX
	20 x 20 x 120	42	7.8	37	-	CUT31-H2020LX	CUT31-H2020RX
	25 x 25 x 140	42	7.8	37	-	CUT31-H2525LX	CUT31-H2525RX

Pièces de rechange
Ersatzteile
Spare parts

L



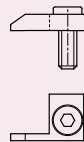
Art. N°

CUT16LX-SET

CUT22LX-SET

CUT31LX-SET

R



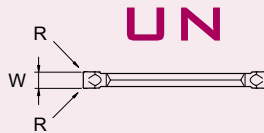
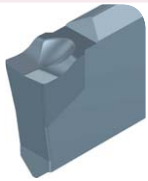
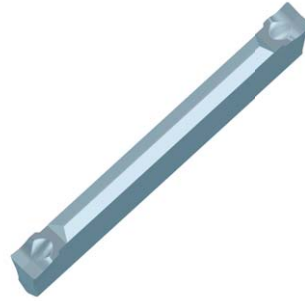
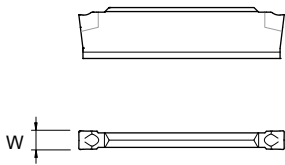
Art. N°

CUT16RX-SET

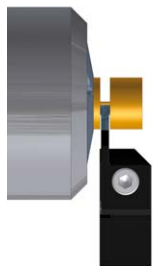
CUT22RX-SET

CUT31RX-SET

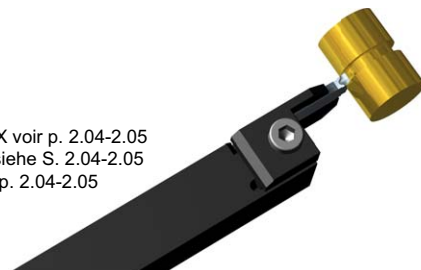
Plaquettes en métal dur pour tronçonnage
VHM-Abstechwendeplatten
Solid carbide cut off inserts



Type	W +/-0.05	A	R	Art. N°	HTA HTX TIALN Tmax AS
CUT16	1.6	-	0.02	CUT16-UN-000	■ ■ ■ ■
	1.6	-	0.10	CUT16-UN-001	■ ■ ■ ■
CUT22	2.2	-	0.02	CUT22-UN-000	■ ■ ■ ■
	2.2	-	0.20	CUT22-UN-002	■ ■ ■ ■
CUT31	3.1	-	0.02	CUT31-UN-000	■ ■ ■ ■
	3.1	-	0.20	CUT31-UN-002	■ ■ ■ ■

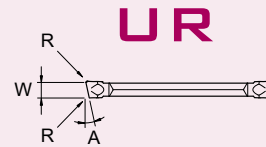
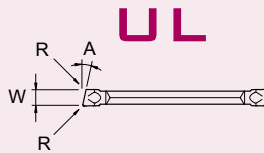
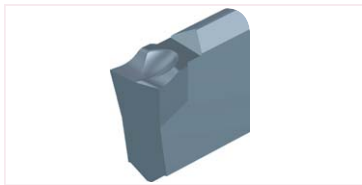
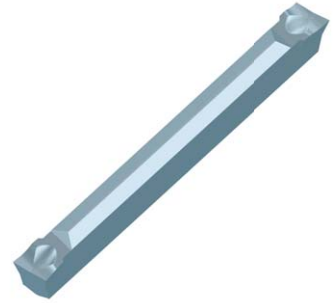
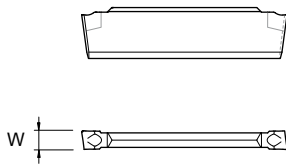


utiliser des porte-outils type H ou HX voir p. 2.04-2.05
Halter Typ H oder HX verwenden, siehe S. 2.04-2.05
use holder type H or HX, see p. 2.04-2.05

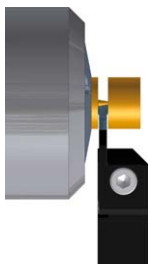


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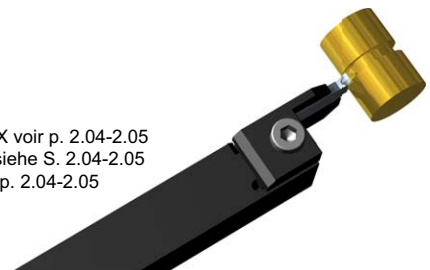
Plaquettes en métal dur pour tronçonnage
VHM-Abstechwendeplatten
Solid carbide cut off inserts



Type	W +/-0.05	A	R	Art. N°		HTA	HTX	Ti/ALN	T _{max}	AS
				UL	UR	■	■	■	■	■
CUT16	1.6	8°	0.02	CUT16-UL-800	CUT16-UR-800	■	■	■	■	■
	1.6	15°	0.02	CUT16-UL-1500	CUT16-UR-1500	■	■	■	■	■
CUT22	2.2	8°	0.02	CUT22-UL-800	CUT22-UR-800	■	■	■	■	■
	2.2	8°	0.20	CUT22-UL-802	CUT22-UR-802	■	■	■	■	■
	2.2	15°	0.02	CUT22-UL-1500	CUT22-UR-1500	■	■	■	■	■
CUT31	3.1	8°	0.02	CUT31-UL-800	CUT31-UR-800	■	■	■	■	■
	3.1	8°	0.20	CUT31-UL-802	CUT31-UR-802	■	■	■	■	■
	3.1	15°	0.02	CUT31-UL-1500	CUT31-UR-1500	■	■	■	■	■



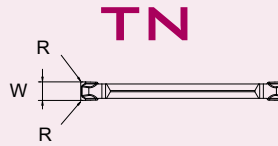
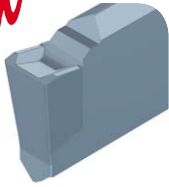
utiliser des porte-outils type H ou HX voir p. 2.04-2.05
Halter Typ H oder HX verwenden, siehe S. 2.04-2.05
use holder type H or HX, see p. 2.04-2.05



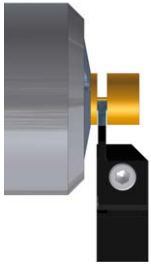
■ = Disponible / Verfügbar / Available

Plaquettes en métal dur pour tronçonnage Ø 12-42mm
 VHM-Abstechwendeplatten Ø 12-42mm
 Solid carbide cut off inserts Ø 12-42mm

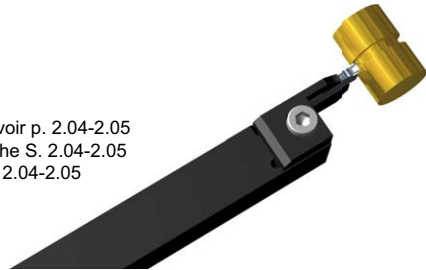
new



Type	W +/-0.05	A	R	Art. N°	TIALN Tmax
CUT 22	2.2	-	0.20	CUT22-TN-002	■ ■
CUT31	3.1	-	0.20	CUT31-TN-002	■ ■



utiliser des porte-outils type H ou HX voir p. 2.04-2.05
 Halter Typ H oder HX verwenden, siehe S. 2.04-2.05
 use holder type H or HX, see p. 2.04-2.05



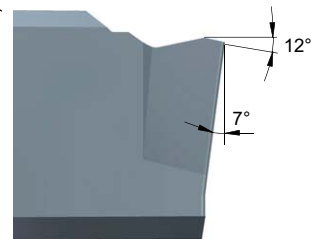
Caractéristiques des plaquettes type TN
 Eigenschaften der TN-Wendeplatten
 Characteristic of TN inserts



Negative cut off

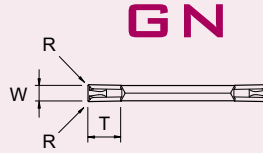
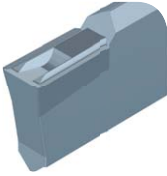
Ø 12-42mm

Pour avance moyenne à élevée
 Für mittlere bis hohe Vorschübe
 Medium high feed



■ = Disponible / Verfügbar / Available

Plaquettes en métal dur pour fonder tourner
 VHM-Wendeplatten zum einstecken und drehen
 Solid carbide inserts for grooving and turning



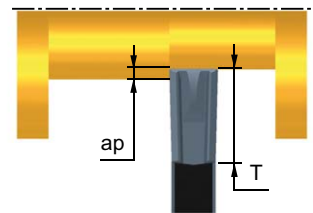
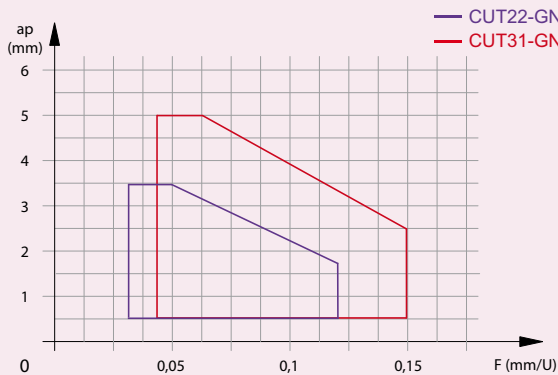
Type	W +/-0.05	T	R	Art. N°	TIALN Tmax AS
CUT22	2.2	3.5	0.15	CUT22-GN-002	■ ■ ■
CUT31	3.1	5	0.15	CUT31-GN-002	■ ■ ■



utiliser des porte-outils type H voir p. 2.04
 Halter Typ H verwenden, siehe S. 2.04
 use holder type H, see p. 2.04



Conseils d'utilisation pour plaquettes type GN
 Anwendungsempfehlungen für GN-Wendeplatten
 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

Matière / Vc (m/min) - F (mm/U)
 Werkstoff / Vc (m/min) - F (mm/U)
 Material / Vc (m/min) - F (mm/U)



voir page :
 siehe Seite : 2.03
 see page :

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