



**Tools cut better
with TIGRA**



2023

Woodworking

Holzbearbeitung

Travail du bois

Lavorazione del legno


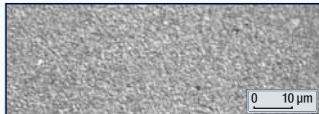
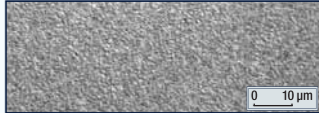
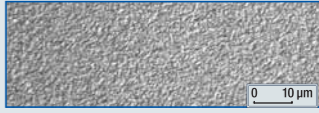
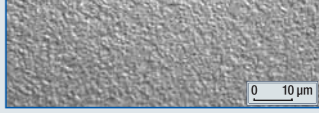
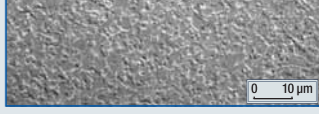
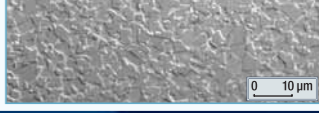

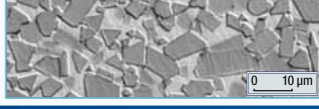
Trabajo de madera

EN TIGRA carbide grades – Technical Data
 DE TIGRA Hartmetallsorten – Technische Daten
 FR Nuances carbure TIGRA – Caractéristiques techniques
 IT I tipi di metallo duro TIGRA – Dati tecnici
 ES Calidades de metal duro TIGRA – Datos técnicos

EN	TIGRA grade	Binder	Hardness		Bending strength		Toughness
			Binder	Härte	Biegebruchfestigkeit	Zähigkeit	
DE	TIGRA - Sorte	Liant	Dureté	Ténacité	Resistencia a la flexión	Resistencia a la flexión	Tenacidad
FR	Nuance TIGRA	Legante	Durezza	Tenacità	Resistenza flessionale	Resistenza a la flexión	Tenacidad
IT	Tipo TIGRA	Composicion	Durezza	Tenacità	Resistenza flessionale	Resistenza a la flexión	Tenacidad
ES	Calidad TIGRA	%	HV 10	HRA	N/mm ²	psi	MPa * m ^{1/2}
T02SMG	ISO: K01 USA: C4 +++	2.5	2350	95.0 - 95.3	2000	290.000	5.7
T03SMG	ISO: K01 USA: C4 ++	3.5	2100	94.6	2600	377.000	7.5
T03MG-CR	ISO: K01 USA: C4 ++	3.0	2050	94.5	2500	363.000	7.8
T03F-CR	ISO: K01 USA: C4 +	3.0	1950	94.1	2300	334.000	8.0
T04MG-CR	ISO: K01 USA: C4 +	4.3	1900	93.8	2350	341.000	8.6
T04F-CR	ISO: K05 USA: C4	4.5	1800	93.3	2350	341.000	9.0
T05UMG	ISO: K01-K10 USA: C3 ++	5.0	2050	94.5	2450	355.000	7.8
T06MG	ISO: K01-K20 USA: C3 ++	6.0	1800	93.3	2700	392.000	8.4
T06F-CR	ISO: K10 USA: C3	6.0	1740	92.9	2350	341.000	8.9
T07MF-CR	ISO: K20-K30 USA: C2-C3	7.5	1580	91.7	2600	377.000	10.1
T07MF-W	ISO: K20-K30 USA: C2-C3	7.5	1540	91.5	2550	370.000	10.2
T10MG	ISO: K10-K40 USA: C3 +	10.0	1650	92.3	3700	537.000	10.0
T10MG-W	ISO: K10-K40 USA: C3 +	10.0	1600	92.0	3600	522.000	9.8
T12SMG	USA: C1 ++	12.0	1700	92.7	4000	580.000	9.5
T12M-CR	ISO: >K40 USA: C1	12.0	1200	88.3	2700	392.000	13.9
T15C	ISO: >K40 USA: Nail Cut	15.0	890	84.5	3000	435.000	> 20
TL15*	ISO: K10-K40 USA: C3 +	13.5	1450	90.8	3800	551.000	10.8
TL20*	ISO: K10-K40 USA: C2 +	20.0	1230	88.6	3700	537.000	> 20

CR = Co + Ni + Cr = corrosion resistant - korrosionsbeständig - anti-corrosif - inossidabile - anticorrosivo
 * Special binder - Spezialbinder - Liant spécial - Legante speciale - Composición especial

EN TIGRA carbide grades – Grain sizes and binder content
 DE TIGRA Hartmetallsorten – Korngrößen und Bindergehalt
 FR Nuances carbure TIGRA – Grosseur du grain et contingent de liant
 IT I tipi di metallo duro TIGRA – Grossezza del grano e quota di legante
 ES Calidades de metal duro TIGRA – Tamaño del grano y cuota de la composición

EN	Shortform	Explanation	Grain size	Micrograph
DE	Abkürzung	Erklärung	Grosseur du grain	Tamaño del grano
FR	Abréviation	Explication	Grosseur du grain	Tamaño del grano
IT	Abbreviazione	Spiegazione	Grossezza del grano	Tamaño del grano
ES	Abreviatura	Explicación	Tamaño del grano	Tamaño del grano
			(µm)	
	NG	Nano Grain	0.2	
	UMG	Ultra Micro Grain	0.2 - 0.5	
	SMG	Sub Micro Grain	0.5 - 0.7	
	MG	Micro Grain	0.7 - 1.0	
	F	Fine Grain	1.0 - 1.4	
	MF	Medium Fine Grain	1.4 - 2.5	
	M	Medium Grain	2.5 - 4.0	
	C	Coarse Grain	4.0 - 10.0	
	EC	Extra Coarse	> 10	

EN Detailed application recommendations can be found in the individual chapters.
 DE Detaillierte Anwendungsempfehlungen finden Sie in den einzelnen Kapiteln.
 FR Pour les recommandations d'application détaillées, veuillez voir aux chapitres suivants.
 IT Suggestimenti di impiego dettagliati si trovano nei singoli capitoli.
 ES Recomendaciones de aplicación detalladas, se encuentran en los capítulos individuales.

- EN Reversible knives – Carbide grades and their applications
 DE Wendeschneidplatten – Hartmetallsorten und ihre Anwendungen
 FR Plaquettes réversibles – Les nuances de carbures et leurs applications
 IT Coltelli reversibili – I tipi di metallo duro e le loro applicazioni
 ES Cuchillas reversibles – Calidades de metal duro y sus aplicaciones

EN DE FR IT ES	TIGRA grade TIGRA - Sorte Nuance TIGRA Tipo TIGRA Calidad TIGRA	ISO ISO ISO ISO ISO	USA USA USA Stati uniti EE.UU.	Hardness Härte Dureté Durezza Dureza	Toughness Zähigkeit Ténacité Tenacità Tenacidad	Bending strength Biegebruchfestigkeit Résistance à la flexion Resistenza flessionale Resistencia a la flexión	Plastics Plastik Plastiques Plastica Plásticos	HDF HDF HDF HDF HDF	MDF MDF MDF MDF MDF	Chipboard Spanplatte Panneaux de particule Truciolare Panel de aglomerado	Hardwood Hartholz Bois dur Legno duro Madera dura	Softwood Weichholz Bois tendre Legno tenero Madera blanda	Main usage Hauptverwendung Usage principal Usò principale Usò principal
	T02SMG	K01	C4+++	↑	↘	↓	✓	✓	✓	○	☒	☒	EN MDF, HDF DE MDF, HDF FR MDF, HDF IT MDF, HDF ES MDF, HDF
	T03SMG	K01	C4++	↗	↘	→	✓	✓	✓	✓	☒	☒	EN Chipboard, MDF DE Spanplatte, MDF FR Panneaux, MDF IT Truciolare, MDF ES Aglomerados, MDF
	T04MG-CR	K01	C4+	→	→	→	✓	○	✓	✓	✓	○	EN Tropical wood, very hard wood, chipboard, MDF DE Tropenholz, sehr hartes Holz, Spanplatte, MDF FR Bois tropical, bois très dur, panneaux, MDF IT Legni tropicali, legni molto duri, truciolare, MDF ES Madera tropical, madera muy dura, aglomerado, MDF
	T04F-CR UNIVERSAL	K05	C4	→	↗	→	✓	○	✓	✓	✓	✓	EN Universal use DE Universeller Einsatz FR Utilisation universelle IT Uso universale ES Uso universal
	T05UMG	K01 - K10	C3++	↗	↘	↗	✓	☒	○	☒	✓	✓	EN Special reversible knives DE Spezial-Wendeschneidplatten FR Plaquettes réversibles spéciales IT Coltelli reversibili speciali ES Cuchillas reversibles especiales
	T07MF-CR	K20 - K30	C2 - C3	↘	↑	↗	☒	☒	☒	☒	✓	✓	EN Grooving knives DE Nuter FR Couteaux pour rainures IT Coltelli per incastri ES Cuchillas para ranura
	T10MG	K10 - K40	C3+	↘	↗	↑	○	☒	☒	☒	✓	✓	EN 45° reversible knives, planer knives, softwood DE 45°-Wendeschneidplatten, Hobelkopffplatten, Weichholz FR Plaquettes 45°, couteaux pour outils à raboter, bois tendre IT Coltelli a 45°, coltelli per teste da pialla, legni teneri ES Cuchillas 45°, cuchillas para cepillar, madera blanda
	T10MG-W	K10 - K40	C3+	↘	↗	↗	☒	☒	☒	☒	✓	✓	EN Wood, low price demands DE Holz, niedriger Preis FR Bois, prix bas IT Legno, prezzo ridotto ES Madera, precio economico
	T12SMG		C1++	↘	↑	↑	☒	☒	☒	☒	✓	✓	EN Best surface, high speed cutting (HSC) DE Beste Oberfläche, HSC FR Meilleure surface, HSC IT Migliore superficie, HSC ES Mejor superficie, HSC
	TL15*	K10 - K40	C3+	↘	↑	↑	○	☒	☒	☒	✓	✓	EN 45° reversible knives, wood with knots, softwood DE 45°-Wendeschneidplatten, Holz mit Ästen, Weichholz FR Plaquettes 45°, bois avec des noeuds, bois tendre IT Coltelli a 45°, legni nodosi, legno tenero ES Cuchillas 45°, madera con nudos, madera blanda

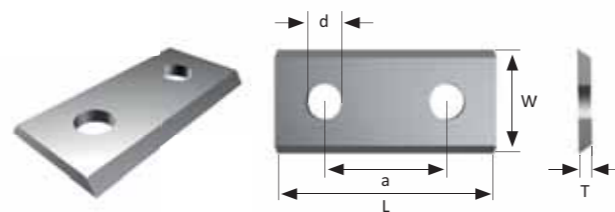
CR = Co + Ni + Cr = corrosion resistant - korrosionsbeständig - anti-corrosif - inossidabile - anticorrosivo

* Special binder - Spezialbinder - Liant spécial - Legante speciale - Composición especial

EN For technical data, please refer to the pages 4-5.
 DE Die technischen Daten entnehmen Sie bitte den Seiten 4-5.
 FR Pour les données techniques, veuillez voir aux pages 4-5.

IT Per i dati tecnici, fare riferimento alle pagine 4-5.
 ES Para los datos técnicos, consulte las páginas 4-5.

✓ best performance ○ acceptable
 ✓ very good performance ☒ not suitable



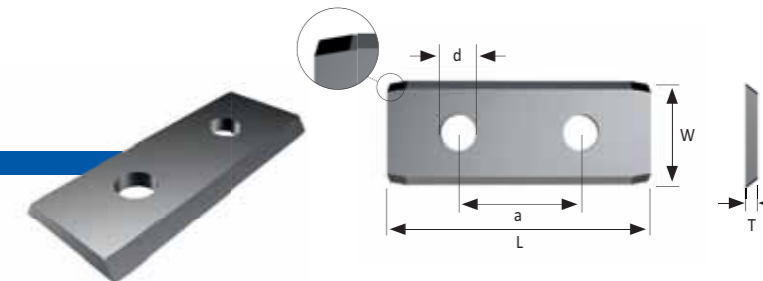
35°

- EN Standard reversible knives
- DE Standard-Wendeschneidplatten
- FR Plaquettes réversibles standard
- IT Coltelli reversibili standard
- ES Cuchillas reversibles standard

	L mm	W mm	T mm	a mm	T04F-CR	T02SMG	T03SMG	T04MG-CR	T10MG	T10MG-W
	7.5	12.0	1.5		012001		013811	106822	013963	142721
	8.6	12.0	1.5		013182					
	9.0	12.0	1.5		012043					
	9.6	12.0	1.5		012015		013850	106823	014010	142722
	10.0	12.0	1.5		013165					
	10.5	12.0	1.5		013167					
	11.0	12.0	1.5		013168					
	11.6	12.0	1.5		013183					
	13.0	12.0	1.5		013170					
	13.6	12.0	1.5		013185					
	14.6	12.0	1.5		013186					
	15.0	12.0	1.5		012003	052277	013819	106824	013972	142723
	15.7	12.0	1.5		013172					
	16.0	12.0	1.5		013203					
	17.0	12.0	1.5		013173					
	18.0	12.0	1.5		013174					
	19.0	12.0	1.5		013175					
	20.0	12.0	1.5		012004	041587	013823	104796	013977	127452
25.0	12.0	1.5		012025	112368	013853	106826	014013	142975	
	25.0	12.0	1.5	14.0	012011		013843	106827	014001	152428
	30.0	12.0	1.5	14.0	012005	037750	013828	104795	013982	125424
	35.0	12.0	1.5	26.0	013208					
	40.0	12.0	1.5	26.0	012014	052278	013847	106828	014006	127453
	50.0	12.0	1.5	26.0	012006	037901	013834	106829	013987	125425
	60.0	12.0	1.5	26.0	012007	054882	013839	106830	013994	127454

	L mm	W mm	T mm		T04F-CR
	30.0	12.0	2.5	35°	054259

	L mm	W mm	T mm	a mm	T07MF-CR	T03SMG	T04MG-CR	T10MG	T10MG-W
	80.0	13.0	2.2	60.0	012008	013841	106831	013997	152430
	100.0	13.0	2.2	60.0	012009	030831	106832	013998	152431
	120.0	13.0	2.2	60.0	012010	030832	106833	013999	152432



- EN Reversible knives
- DE Wendeschneidplatten
- FR Plaquettes réversibles
- IT Coltelli reversibili
- ES Cuchillas reversibles

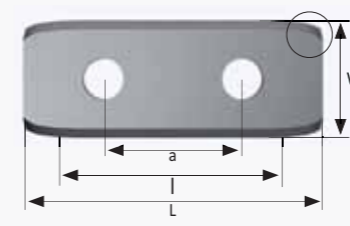
For use in planer heads!
Für Hobelköpfe!

With chamfered edges	L mm	W mm	T mm		T04F-CR	T04MG-CR	T10MG
	20.0	12.0	1.5	35°		106674	013979
	20.0*	12.0	1.5	45°			041948
	24.0	12.0	1.5	40°	104119	106675	041060
	24.7	12.0	1.5	35°	104120	106676	
	30.0	12.0	1.5	35°	112875	106677	013984
	50.0	12.0	1.5	35°			013989
	30.0	12.0	2.5	35°	102283		


- * EN System Hundegger
- * DE System Hundegger
- * FR Système Hundegger
- * IT Sistema Hundegger
- * ES Sistema Hundegger

NEW! **Rounded Edges**

New edge technology - Rounded cutting edges for high-quality wood surfaces
 Neue Kantentechnologie - Abgerundete Schneidkanten für hochwertige Holzoberflächen
 Nouvelle technologie des lames - Bords de coupe arrondis pour des surfaces en bois de haute qualité
 Nuova tecnologia dei bordi: bordi arrotondati per superfici in legno di alta qualità
 Nueva tecnología de cantos - Cantos de corte redondeados para superficies de madera de alta calidad

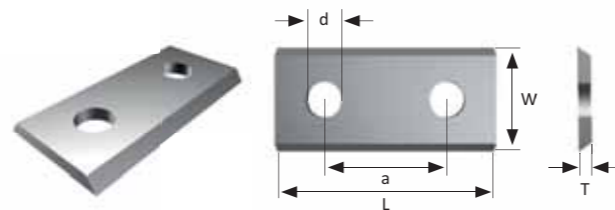


rounded edges



l = EN Effective working length
 DE Nutzlänge
 FR Longueur utile de travail
 IT Lunghezza utile di lavoro
 ES Longitud de trabajo utilizable




With rounded edges	L mm	W mm	T mm		l mm	T04F-CR	T10MG
	30.0	12.0	1.5	35°	20	161015	161554



45°

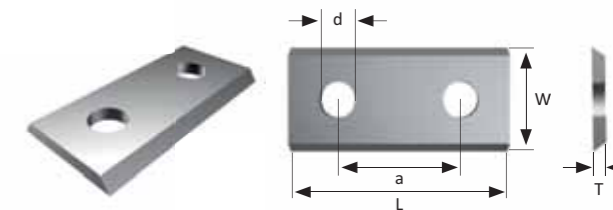
- EN Reversible knives
- DE Wendeschneidplatten
- FR Plaquettes réversibles
- IT Coltelli reversibili
- ES Cuchillas reversibles

POLISHED







	L mm	W mm	T mm	a mm		T10MG
	9.6	12.0	1.5		45°	014117
	15.0	12.0	1.5		45°	014099
	20.0	12.0	1.5		45°	014101
	25.0	12.0	1.5	14.0	45°	014111
	30.0	12.0	1.5	14.0	45°	014103
	40.0	12.0	1.5	26.0	45°	014114
	50.0	12.0	1.5	26.0	45°	014106
	60.0	12.0	1.5	26.0	45°	014108
	12.0	12.0	1.5		45°	014097



NOT POLISHED

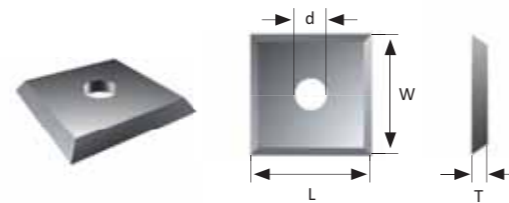
	L mm	W mm	T mm	a mm		T07MF-CR	T10MG
	7.5	12.0	1.5		45°		014091
	9.6	12.0	1.5		45°		014115
	15.0	12.0	1.5		45°		014098
	20.0	12.0	1.5		45°		014100
	25.0	12.0	1.5		45°		014123
	25.0	12.0	1.5	14.0	45°		014110
	30.0	12.0	1.5	14.0	45°		014102
	40.0	12.0	1.5	26.0	45°		014113
	50.0	12.0	1.5	26.0	45°		014105
	60.0	12.0	1.5	26.0	45°		014107
	12.0	12.0	1.5		45°		014096
	80.0	13.0	2.2	60.0	45°	013532	038233







- EN Reversible knives
- DE Wendeschneidplatten
- FR Plaquettes réversibles
- IT Coltelli reversibili
- ES Cuchillas reversibles

	L mm	W mm	T mm	a mm	T04F-CR
	20.0	14.3	2.5		013730
	44.5	15.0	1.5	25.0	013447
	30.0	12.0	1.5	16.0	013449
	24.0	12.0	1.5		013241
	30.0	12.0	1.5	14.0	013430
	30.0	12.0	1.5	14.0	013431
	30.0	12.0	1.5	14.0	013437
	40.0	12.0	1.5	26.0	013440
	50.0	12.0	1.5	26.0	013438
	30.0	12.0	1.5	14.0	013442
	40.0	12.0	1.5	26.0	013445
	50.0	12.0	1.5	26.0	013443

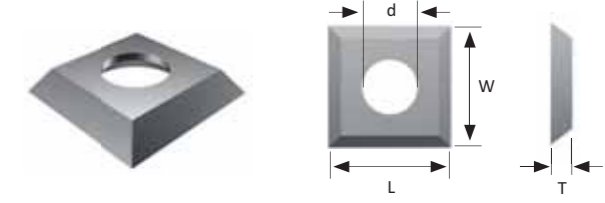
	L mm	W mm	T mm	a mm	T04F-CR
	20.0	9.0	1.5		013195
	30.0	9.0	1.5	14.0	013199
	40.0	9.0	1.5	26.0	013200
	50.0	9.0	1.5	26.0	013201



EN Square knives
 DE Quadratische Wendeschneidplatten
 FR Plaquettes réversibles à quatre coupes
 IT Coltelli reversibili quadrati
 ES Cuchillas reversibles cuadradas

	L	W	T		d	T07MF-CR	T04F-CR	T02SMG	T03SMG	T04MG-CR	T10MG	T10MG-W
	mm	mm	mm		mm							
	9.0	9.0	1.5	35°	4.0							
	10.5	10.5	1.5	35°	4.0	100744						
	12.0	12.0	1.5	35°	4.0	013259			013863			
	13.0	13.0	2.5	35°	4.0	012002		048357	013815	106835	013968	140093
						013328						
	17.0	17.0	2.0	35°	3.0	016564						
	17.0	17.0	2.0	35°	4.0	013265						
	19.0	19.0	2.0	35°	4.0	013264						
	10.5	10.5	1.5	35°						106682		
	13.0	13.0	2.5	30°		013324						
	13.6	13.6	2.0	30°		013299						
	13.6	13.6	2.0	45°		037522						
	14.0	14.0	1.2	30°		013295						
	14.0	14.0	1.7	30°		013307						
	14.0	14.0	2.0	30°		013273	013260	054962	013865	102558	014028	140094
 For Holz-Her system*	14.0	14.0	1.2	30°		013303						
	15.0	15.0	2.0			013322						

* EN For use in Holz-Her cutterheads only
 * DE Nur zur Verwendung in Messerköpfen der Firma Holz-Her
 * FR Utilisation limitée aux porte outils de l'entreprise Holz-Her
 * IT Da usare solo su teste portacoltelli della Holz-Her
 * ES Sólo para empleo con portacuchillas de la firma Holz-Her

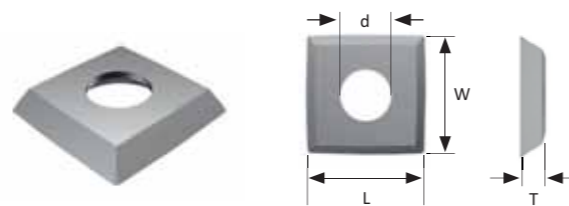


EN Square knives
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 ES Cuchillas reversibles cuadradas

For use in planer heads!
 Für Hobelköpfe!

Straight with sharp edges	L	W	T		T07MF-CR	T04F-CR	T10MG	T04MG-CR	TL15	T10MG-W
	mm	mm	mm							
	10.5	10.5	1.5	35°				106682	040343	
	14.0	14.0	2.0	30°	013273	013260	014028	102558	013771	140094
	14.0	14.0	2.0	37°			104900			
	14.3	14.3	2.5	35°			013329	106683		
	14.6	14.6	2.5	30°			013314	106684		
	15.0	15.0	2.5	30°			013315	106685		152429
	15.0	15.0	2.5	37°			104062			
Straight with rounded edges	L	W	T		T07MF-CR	T10MG				
	mm	mm	mm							
	14.0	14.0	2.0	30°	013276		104117			
	14.6	14.6	2.5	30°			013316			
	15.0	15.0	2.5	30°			104118			
	15.0	15.0	2.5	37°			109384			
For system Ledinek*	L	W	T			T10MG				
	mm	mm	mm							
	14.3	14.3	2.5	35°			053589			
	14.3	14.3	2.5	35°			053590			
	14.3	14.3	2.5	35°			106861			
	L	W	T		T10MG	TL20	T10MG-W			
	mm	mm	mm							
	21.0	21.0	5.5	40°	022695		142724			140092

* EN For use in Ledinek-cutterheads only
 * DE Nur zur Verwendung in Messerköpfen der Firma Ledinek
 * FR Utilisation limitée aux porte outils de l'entreprise Ledinek
 * IT Da usare solo su teste portacoltelli della Ledinek
 * ES Sólo para empleo con portacuchillas de la firma Ledinek



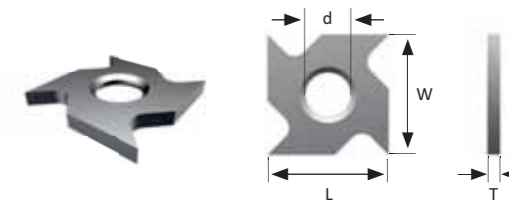
EN Square knives
 DE Quadratische Wendeschneidplatten
 FR Plaquettes réversibles à quatre coupes
 IT Coltelli reversibili quadrati
 ES Cuchillas reversibles cuadradas

For use in planer heads!
 Für Hobelköpfe!

With radius and rounded edges	L mm	W mm	T mm	R		T10MG	T10MG-W
	11.0	11.0	1.5	R=50	40°	140519	
	15.0	15.0	2.5	R=115	30°	115179	
	15.0	15.0	2.5	R=150	30°	101540	140096

	L mm	W mm	T mm	R		T10MG	T10MG-W
	14.0	14.0	2.0	R=150	30°	100788	
	13.8	13.8	2.5	R=40	37°	154645	
	15.0	15.0	2.5	R=50	30°	043895	140095
	15.0	15.0	2.5	R=180	30°	129329	
	15.0	15.0	2.5	R=200	30°	118997	

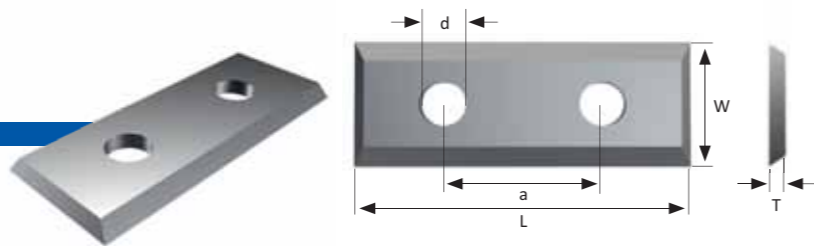
With radius and pointed edges	L mm	W mm	T mm	R		T04MG-CR	T10MG
	15.0	15.0	2.5	R=170	40°		130366
	15.0	15.0	2.5	R=190	40°		147537
	15.0	15.0	2.5	R=200	30°	130828	
	15.0	15.0	2.5	R=95	30°		148426
	15.0	15.0	2.5	R=95	37°		148427
	15.0	15.0	2.5	R=100	30°		101180
	15.0	15.0	2.5	R=100	40°		144107
	15.0	15.0	2.5	R=150	30°		100791
	14.0	14.0	2.0	R=150	30°		100789
	15.0	15.0	2.5	R=50	30°		101044














EN Spurs, grooving knives
 DE Vorschneider, Nuter
 FR Araseur, couteaux pour rainures
 IT Rasanti, coltelli per scanalature
 ES Incisores, cuchillas para ranura

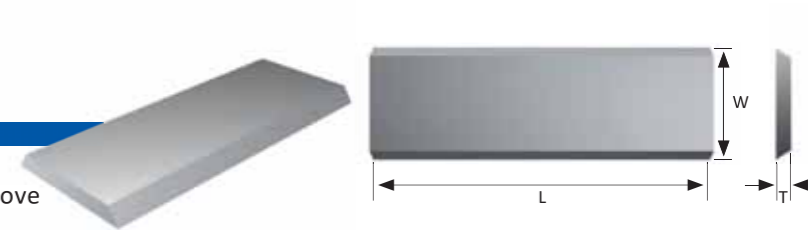
	L mm	W mm	T mm		d mm	T07MF-CR	T10MG
	18.0	18.0	1.95			013293	
	18.0	18.0	2.45			013291	
	18.0	18.0	2.95			013305	
	18.0	18.0	3.70			013289	
	22.9	19.8	2.5	30°		045180	
	22.0	19.0	2.0	30°		013271	
	14.0	28.0	2.0	30°		013258	
	16.0	16.0	3.0	32°		030829	
	18.5		3.25	30°			017190
	33.5				3.0	013252	
	18.9	7.9	4.0			013253	
	18.0	5.7	3.5			013255	
	24.5	13.0	4.0			053640	
	24.5	13.0	5.0			053641	
	24.5	13.0	6.0			053642	
	34.0	16.0	4.0				013278
	34.0	16.0	5.0				013279
	34.0	16.0	6.0				013280

	d1 mm	d2 mm	d3 mm	T mm	T03SMG
	11.0	7.0	5.1	4.0	013373






EN 4 cutting edges / special knives
 DE 4 Schneidkanten / Sondermesser
 FR 4 tranchants / couteaux spéciaux
 IT 4 taglienti / coltelli speciali
 ES 4 filos de corte / cuchillas especiales

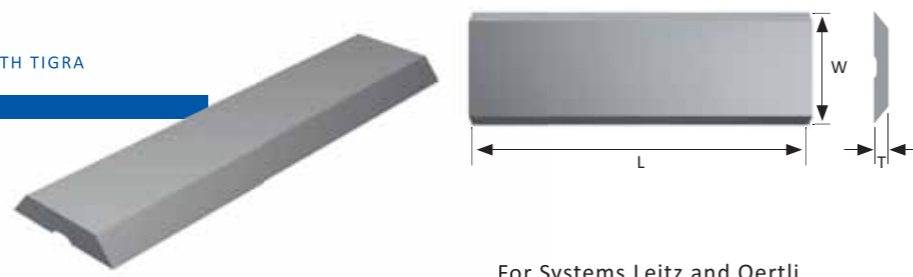
	L mm	W mm	T mm	a mm	T04F-CR	T02SMG	T03SMG	T10MG
	19.5	7.0	1.5		013492			
	19.5	8.0	1.5		013494			
	19.5	9.0	1.5		013495			
	19.5	10.0	1.5		013496			
	19.5	12.0	1.5		013498		013947	
	29.5	7.0	1.5	14.0	013501			
	29.5	7.5	1.5	14.0	013502			
	29.5	8.0	1.5	14.0	013503			
	29.5	9.0	1.5	14.0	013504	054432		
	29.5	10.0	1.5	14.0	013505			
	29.5	11.0	1.5	14.0	013506			
	29.5	12.0	1.5	14.0	013507	047361	013952	014088
	39.5	9.0	1.5	26.0	013511	121138	045134	
	39.5	12.0	1.5	26.0	013512	128797	013954	
	49.5	8.0	1.5	26.0	013516			
	49.5	9.0	1.5	26.0	013517	109052	013956	
	49.5	10.0	1.5	26.0	013518			
	49.5	12.0	1.5	26.0	013520	049019	013957	014090
	59.5	12.0	1.5	26.0	013523			
	50.0	9.0	1.5	37.0	016950		035425	
	50.0	12.0	1.7	37.0	013327	054444	013866	014030
	16.0	7.0	1.5	7.0	016934		016933	
	23.0	7.0	1.5	14.0	053449			
	28.0	7.0	1.5	14.0	016823	102847	016822	
	16.0	7.0	1.5	7.0	048995			
	16.0	7.0	1.5	7.0	048996			
	23.0	7.0	1.5	14.0	106866			
	23.0	7.0	1.5	14.0	106867			
	31.5	9.0	1.5	14.0	109149			









EN Face groove, back groove and crossgroove
 DE Brust-, Rücken- und Quernut
 FR Rainure sur grande face, sur petite face et transversal
 IT Scanalatura frontale, posteriore e di sicurezza
 ES Ranura frontal, de lomo y transversal

	L mm	W mm	T mm	T04F-CR	T03SMG	Style
	50.0	5.5	1.1	013361		EN Back groove DE Rückennut FR Rainure sur petite face IT Scanalatura posteriore ES Ranura de lomo
	20.0	4.1	1.1	013403		EN Back and crossgroove DE Rücken- und Quernut FR Rainure transversale IT Scanalatura di sicurezza ES Ranura transversal
	20.0	5.5	1.1	013394	013920	
	25.0	5.5	1.1	013402		
	30.0	5.5	1.1	013397	013914	
	50.0	5.5	1.1	013401	013918	
	20.0	5.5	1.1	013378		EN 4 Cutting edges DE 4 Schneidkanten FR 4 Tranchants IT 4 Taglienti ES 4 Filos de corte
	25.0	5.5	1.1	013376		
	30.0	5.5	1.1	013379		
	35.0	5.5	1.1	013377		
	40.0	5.5	1.1	013380		
	44.5	5.5	1.1	013375		
	50.0	5.5	1.1	013381		

EN Systems Leitz, Oertli
 DE Systeme Leitz, Oertli
 FR Systèmes Leitz, Oertli
 IT Sistemi Leitz, Oertli
 ES Sistemas Leitz, Oertli

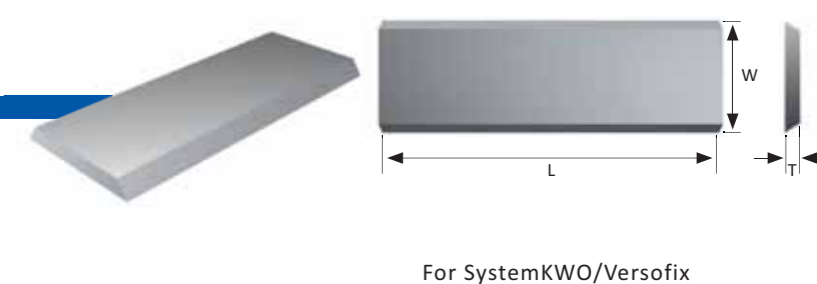



For Leitz system*	L mm	W mm	T mm	T04F-CR Microfinish	T12SMG Microfinish
	7.7	8.0	1.5	142707	142648
	9.7	8.0	1.5	142708	142649
	11.7	8.0	1.5	142709	142650
	14.7	8.0	1.5	129343	142651
	19.7	8.0	1.5	142710	142653
	24.7	8.0	1.5	142711	142654
	30.0	8.0	1.5	142712	142656
	35.0	8.0	1.5	142713	142657
	40.0	8.0	1.5	142714	142658
	45.0	8.0	1.5	142715	142659
	50.0	8.0	1.5	142716	142660
	60.0	8.0	1.5	142717	142661
	70.0	8.0	1.5	142718	142662
	80.0	8.0	1.5	038329	142663
	100.0	8.0	1.5	142719	142664
	120.0	8.0	1.5	142720	142665
	150.0	8.0	1.5	137028	140017
	160.0	8.0	1.5	134774	141256
	180.0	8.0	1.5	137029	140303
	240.0	8.0	1.5	137030	140304
260.0	8.0	1.5	134775	141257	

For Oertli system*	L mm	W mm	T mm	T04F-CR
	9.5	8.0	1.5	030933
	12.0	8.0	1.5	030935
	15.0	8.0	1.5	030936
	20.0	8.0	1.5	030937
	25.0	8.0	1.5	030938
	32.0	8.0	1.5	030940
	40.0	8.0	1.5	030941
	50.0	8.0	1.5	030942
	60.0	8.0	1.5	030943
	80.0	8.0	1.5	030944
	100.0	8.0	1.5	030945
	12.0	12.0	1.5	034294

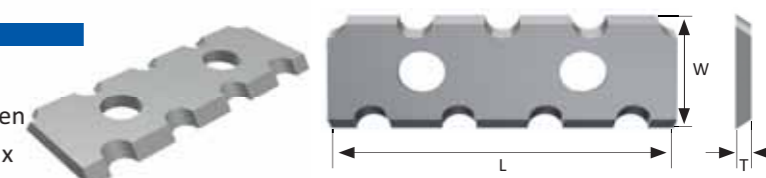
EN For use in Leitz/Oertli-cutterheads only
 DE Nur zur Verwendung in Messerköpfen der Firma Leitz bzw. Oertli
 FR Utilisation limitée aux porte outils des entreprises Leitz et Oertli
 IT Da usare solo su teste portacoltelli della Leitz - Oertli
 ES Sólo para empleo con portacuchillas de la firma Leitz/Oertli

EN System KWO/Versofix
 DE System KWO/Versofix
 FR Système KWO/Versofix
 IT Sistema KWO/Versofix
 ES Sistema KWO/Versofix



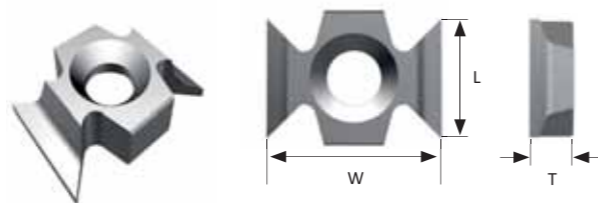
For KWO/Versofix system*	L mm	W mm	T mm	T03SMG TiN-coated	T10MG TiN-coated
	20.0	5.5	1.1	049525	049526
	20.0	10.0	1.5	014273	030841
	30.0	10.0	1.5	014275	030842
	50.0	10.0	1.5	014277	030843

EN Reversible knives with chip breakers
 DE Wendeschneidplatten mit Spanbrechernuten
 FR Plaquettes réversibles avec brise copeaux
 IT Coltellini con rompitruciolo
 ES Cuchillas reversibles con rompevirutas



L mm	W mm	T mm	a mm	T04F-CR
30.0	12.0	1.5	14.0	013117
50.0	12.0	1.5	26.0	013127
60.0	12.0	1.5	26.0	108318

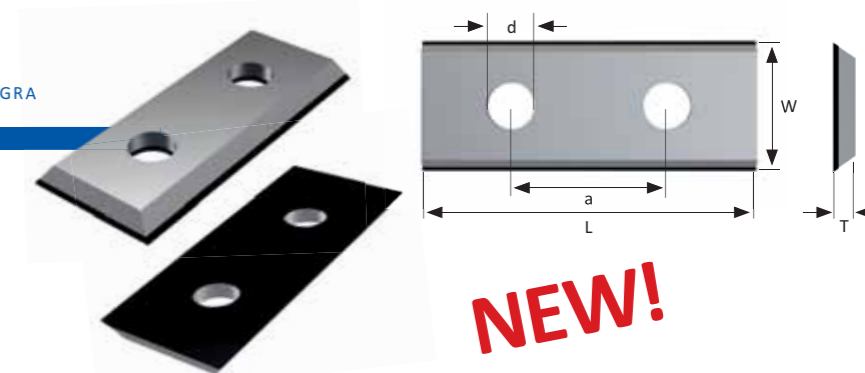
EN For use in KWO/Versofix-cutterheads only
 DE Nur zur Verwendung in Messerköpfen der Firma KWO/Versofix
 FR Utilisation limitée aux porte outils de l'entreprise KWO/Versofix
 IT Da usare solo su teste portacoltelli della KWO/Versofix
 ES Sólo para empleo con portacuchillas de la firma KWO/Versofix



- EN Edge rounding knives
- DE Kantenrunder
- FR Couteaux brise-arrête
- IT Spigolatori
- ES Cuchillas para aristas

		L mm	W mm	T mm	Type	T10MG
		16.0	22.0	5.0	TKM 45°	032292
		16.0	22.0	5.0	TKM R 1.5	032294
		16.0	22.0	5.0	TKM R 2.0	032295
		16.0	22.0	5.0	TKM R 2.5	032296
		16.0	22.0	5.0	TKM R 3.0	032297
		16.0	22.0	5.0	TKM R 4.0	032299
		16.0	22.0	6.0	TKM R 5.0	032301
		15.0	20.0	8.0	TKM 11/0 - 45°	032304
		15.0	22.3	9.0	TKM 12/0 R3	032306
		15.0	20.0	7.3	TKM 12/3 R2	032308
		15.0	20.0	7.0	TKM 12/4 R1.5	032310
		15.0	23.0	8.0	TKM 21/0 - 45°	032316
		15.0	23.0	9.0	TKM 22/0 R3	032318
		15.0	25.7	7.3	TKM 24/0 R5	032327
		15.0	25.7	7.3	TKM 24/1 R5	032326

EN For use in Leitz-cutterheads only
 DE Nur zur Verwendung in Messerköpfen der Firma Leitz
 FR Utilisation limitée aux porte outils de l'entreprise Leitz
 IT Da usare solo su teste portacoltelli della Leitz
 ES Sólo para empleo con portacuchillas de la firma Leitz

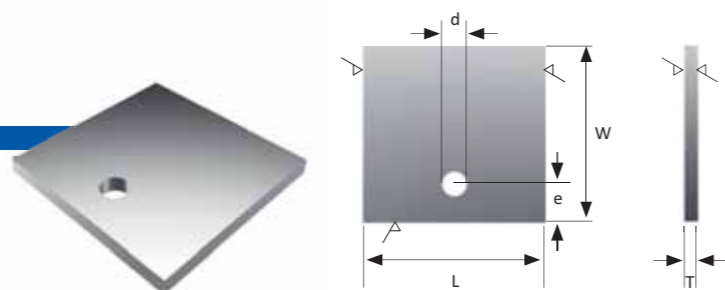










- EN PCD Reversible Knives
- DE PKD-Wendeschneidplatten
- FR Plaquettes réversibles PCD
- IT Coltelli reversibili PCD
- ES Cuchillos reversibles PCD

		L mm	W mm	T mm	a mm	d mm	MS-W
		12	12	1.5		4.1	156292
		20	12	1.5		4.1	158514
		30	12	1.5	14	4.1	155195
		50	12	1.5	26	4.1	155192
4 cutting edges		29.5	12	1.5	14	4.1	161192
		49.5	12	1.5	26	4.1	161191

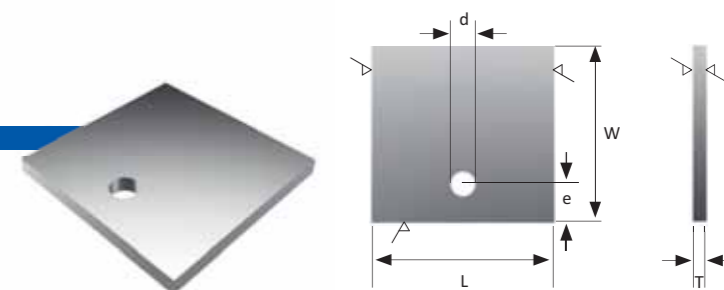










EN Profiled standard blanks
 DE Profilierte Standardblanketts
 FR Plaquettes standard profilées
 IT Placchette profilate standard
 ES Cuchillas perfiladas standard



	L mm	W mm	T mm	d mm	R mm	T04F-CR
	13.0	16.0	2.0	4.0	2.0	032836
	13.0	16.0	2.0	4.0	3.0	032837
	13.0	16.0	2.0	4.0	4.0	032838
	20.0	21.0	2.0	4.0	5.0	032839
	20.0	21.0	2.0	4.0	6.0	032840
	20.0	21.0	2.0	4.0	8.0	032842
	26.0	24.0	2.0	4.0	10.0	032844
	26.0	24.0	2.0	4.0	12.0	032846
	12.0	12.0	1.5	4.0	2.0	016426
	12.0	12.0	1.5	4.0	3.0	016427
	16.0	17.5	2.0	3.0	3.0	016516
	16.0	17.5	2.0	3.0	5.0	016519
	16.0	17.5	2.0	3.5	2.0	016469
	16.0	17.5	2.0	3.5	3.0	016470
	16.0	17.5	2.0	3.5	4.0	016472
	16.0	17.5	2.0	3.5	5.0	016473
	16.0	17.5	2.0	3.5	6.0	016474
	16.0	17.5	2.0	4.0	2.0	016477
	16.0	17.5	2.0	4.0	3.0	016478
	16.0	17.5	2.0	4.0	4.0	016479
16.0	17.5	2.0	4.0	5.0	016480	
	16.0	17.5	2.0	4.4	2.0	016510
	16.0	17.5	2.0	4.4	3.0	016511
	16.0	17.5	2.0	4.4	4.0	016512
	16.0	17.5	2.0	4.4	4.0	016512
	16.0	17.5	2.0	4.4	5.0	016513
	22.3	14.0	2.0	4.8	1.0	129662
	22.3	14.0	2.0	4.8	1.5	119755
	22.3	14.0	2.0	4.8	2.0	107512
	22.3	14.0	2.0	4.8	3.0	108850
	22.3	14.0	2.0	4.8	1.0	129663
	22.3	14.0	2.0	4.8	1.5	119756
	22.3	14.0	2.0	4.8	2.0	107513
	22.3	14.0	2.0	4.8	3.0	108852

EN Profiled standard blanks
 DE Profilierte Standardblanketts
 FR Plaquettes standard profilées
 IT Placchette profilate standard
 ES Cuchillas perfiladas standard



	L mm	W mm	T mm	d mm	R mm	T04F-CR
	15.0	14.5	2.0	4.0	2.0	022305
	15.0	14.5	2.0	4.0	2.5	033939
	15.0	14.5	2.0	4.0	3.0	022308
	16.1	14.0	2.0	5.0	2.0	046693
	16.1	14.0	2.0	5.0	3.0	049986
	15.0	14.5	2.0	4.0	2.0	022307
	15.0	14.5	2.0	4.0	2.5	033940
	15.0	14.5	2.0	4.0	3.0	022309
	16.1	14.0	2.0	5.0	2.0	046694
	16.1	14.0	2.0	5.0	3.0	049987
	12.0	14.5	2.0	4.0	2.0	021044
	12.0	14.5	2.0	4.0	2.5	020397
	12.0	14.5	2.0	4.0	3.0	020620
	19.6	15.2	2.0	4.0	2.0	033963
	19.6	15.2	2.0	4.0	3.0	033967
	12.0	14.5	2.0	4.0	2.0	021045
	12.0	14.5	2.0	4.0	2.5	020396
	12.0	14.5	2.0	4.0	3.0	020619
	19.6	15.2	2.0	4.0	2.0	033966
	19.6	15.2	2.0	4.0	3.0	033968







EN Planer knives
DE Hobelmesser
FR Couteaux à raboter
IT Coltelli da pialla
ES Cuchillas para cepillar

EN Planer knives
 DE Hobelmesser
 FR Couteaux à raboter
 IT Coltelli da pialla
 ES Cuchillas para cepillar

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	EN Planer knives for system Centrofix / Centrostar / Quickfix DE Hobelmesser für System Centrofix / Centrostar / Quickfix FR Couteaux à raboter pour système Centrofix / Centrostar / Quickfix IT Coltelli da pialla per sistema Centrofix / Centrostar / Quickfix ES Cuchillas para cepillar para sistema Centrofix / Centrostar / Quickfix	117
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EN Planer knives - Grades and their applications
 DE Hobelmesser - Sorten und ihre Anwendungen
 FR Couteaux à raboter - Les nuances et leurs applications
 IT Coltelli da pialla - I tipi e le loro applicazioni
 ES Cuchillas para cepillar - Calidades y sus aplicaciones

EN TIGRA grade DE TIGRA - Sorte FR Nuance TIGRA IT Tipo TIGRA ES Calidad TIGRA	Compositon Zusammensetzung Composition Composizione Composición	Hardness Härte Dureté Durezza Dureza	Toughness Zähigkeit Ténacité Tenacità Tenacidad	Bending strength Biegebruchfestigkeit Résistance à la flexion Resistenza flessionale Resistencia a la flexión	EN HDF DE HDF FR HDF IT HDF ES HDF	MDF MDF MDF MDF MDF	Chipboard Spanplatte Panneaux de particule Truciolare Panel de aglomerado	Hardwood Hartholz Bois dur Legno duro Madera dura	Softwood Weichholz Bois tendre Legno tenero Madera blanda	Main usage Hauptverwendung Usage principal Usò principale Usò principal
HSS	6 % W / M2	↘	↗	↗	⊖	⊖	⊖	✓	✓	EN Standard HSS grade, wood DE Standard-HSS-Sorte, Holz FR Nuance HSS standard, bois IT HSS standard, legno ES Calidad HSS estándar, madera
HSS 18 %	18 % W / T1	↗	↗	↗	⊖	⊖	○	✓	✓	EN Best HSS grade, wood DE Beste HSS-Sorte, Holz FR Meilleure nuance HSS, bois IT Migliore HSS, legno ES Mejor calidad HSS, madera
HSS M42	M42	↗	↗	↗	⊖	⊖	⊖	✓	✓	EN Special HSS grade, wood DE Spezial-HSS-Sorte, Holz FR Nuance HSS spéciale, bois IT HSS speciale, legno ES Calidad HSS especial, madera
H.P.S.	CrV	↘	↗	↗	⊖	⊖	⊖	○	✓	EN Softwood, low price demands DE Weichholz, preisgünstig FR Bois tendre, pris bas IT Legni teneri, costo basso ES Madera blanda, bajo costo
T.C.T.	carbide tipped	↗	↗	↘	○	✓	✓	✓	○	EN High lifetime demands DE Hohe Standzeitanforderungen FR Applications de durabilité maximisé IT Elevata esigenza di durata ES Para aplicaciones de maxima durabilidad
Solid carbide	T10MG	↗	↗	↗	✓	✓	✓	✓	✓	EN Highest lifetime demands DE Höchste Standzeitanforderungen FR Très longue durée de vie et nombreux services IT Massima esigenza di durata ES Vida útil muy prolongada
	NEW! T12SMG 	↗	↗	↗	✓	✓	✓	✓	✓	EN Highest lifetime and surface quality DE Höchste Lebensdauer und Oberflächenqualität FR La plus haute qualité de vie et de surface IT Maggiore durata e qualità della superficie ES Máxima vida útil y calidad de la superficie
Matrix	special coating	↗	↗	↗	⊖	⊖	⊖	✓	✓	EN Very long lifetime with multiple resharpening DE Sehr lange Lebensdauer durch mehrfaches Nachschärfen FR Très longue durée de vie et nombreux services IT Durata molto lunga con affilatura multipla ES Muy larga vida útil con múltiple reafilado

 best performance
 very good performance
 acceptable
 not suitable

EN For technical data, please refer to the pages 8-10.
 DE Die technischen Daten entnehmen Sie bitte den Seiten 8-10.
 FR Pour les données techniques, veuillez voir aux pages 8-10.

IT Per i dati tecnici, fare riferimento alle pagine 8-10.
 ES Para los datos técnicos, consulte las páginas 8-10.

- EN Premium planer knives with polished grinding in carbide grade T12SMG
- DE Premium-Hobelmesser mit Polierschliff in der Hartmetallsorte T12SMG
- FR Couteaux à raboter premium avec affûtage poli miroir en nuance de carbure T12SMG
- IT Coltelli da pialla di alta qualità con affilatura lappata in metallo duro tipo T12SMG
- ES Cuchillas para cepillar premium con afilado pulido en calidad de carburo T12SMG

NEW!

T12SMG

PREMIUM Products

System TERSA, System CENTROLOCK, System CENTROFIX/CENTROSTAR/QUICKFIX, System VARIPLAN, System SINUS, System ENSHIN, System ENSHIN 8-B, System ENSHIN 8-C, System Bulldozer

EN Best surface quality due to highly polished cutting edges and finest grain carbide
Up to 40 % longer tool life compared to standard carbide knives on the market

DE Beste Oberflächengüte durch hochglanzpolierte Schneidkanten und Feinstkornhartmetall
Bis zu 40 % höhere Standwege gegenüber marktüblichen HM-Messern

FR Excellente qualité de surface grâce aux arêtes de coupe polies miroir et au carbure à grain fin
Jusqu'à 40 % plus de durée de vie en comparaison avec les couteaux en carbure de tungstène disponibles sur le marché

IT Migliore qualità della superficie, grazie ai taglienti lappati e al metallo duro con grano finissimo
Durata dell'utensile fino al 40 % in più, rispetto ai coltelli in metallo duro standard presenti sul mercato

ES Para mejor calidad de superficie gracias a los bordes de corte altamente pulidos y al carburo de grano más fino
Hasta un 40 % más de duración de la herramienta en comparación con las cuchillas de metal duro estándar del mercado

- EN Further technical information
- DE Weitere technische Informationen
- FR Plus d'informations techniques
- IT Ulteriori informazioni tecniche
- ES Más información técnica

Black Oxide

EN HSS Black Oxide*
Optimum HSS system planer knives with hardened cutting edges

DE HSS Black Oxide*
Optimierte HSS-System-Hobelmesser mit gehärteten Schneidkanten

hard soft hard

EN Optimized distribution of hardness
The unique manufacturing process maneuvers hardness to where it belongs: the cutting edge. The core of the knife remains soft to help protect against breakage and to also increase the ease of an eventual straightening.

Polished cutting edge
For an extra-aggressive cut in the wood, the cutting edge has a second, partial polish grind.

Black Oxide Surface
The thin black surface layer of ferric oxide, only nanometers thick, runs across the top and bottom. This improves corrosion resistance and prevents early rusting.

DE Optimierte Härteverteilung
Durch das spezielle Herstellungsverfahren wird die Härte genau dort hin gebracht, wo sie auch benötigt wird: in die Schneidkante. Der Kern des Messers bleibt weich und flexibel, was Bruch vorbeugt und das eventuelle Richten nach dem Nachschärfen vereinfacht.

Polierte Schneidkante
Für einen besonders giftigen Eingriff im Holz und eine sehr gute Holzoberfläche hat die Schneidkante einen zweiten, polierten Schliff.

Black Oxide Surface
Die wenige Nanometer starke, schwarze Schicht aus Eisenoxyd auf Ober- und Unterseite macht das Messer beständiger gegen Korrosion und verhindert frühzeitiges Rosten.

Matrix Coating

Matrix Coating Technology* - Special coating for longest tool life
Matrix Coating Technology* - Spezialbeschichtung für längste Standwege

EN Unique coating for maximum lifetime requirements

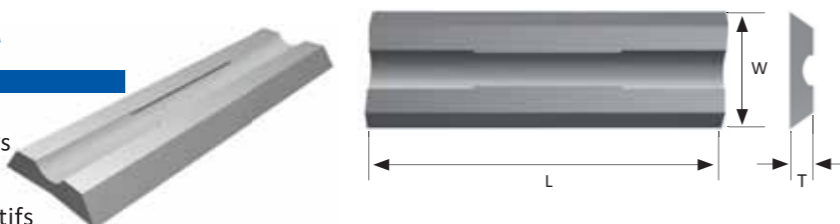
- Tool life is on average 3-5 times longer
- Coating penetrates into the material
- Still significantly longer tool life after resharpening
- Smoother surface
- Applications: thin planer knives, back corrugated systems, reversible knives

DE Einzigartige Beschichtung für höchste Standwegansprüche

- Durchschnittlich 3-5-facher Standweg
- Beschichtung dringt in das Material ein
- Auch nach dem Nachschärfen noch deutlich längere Standwege
- Glattere Oberfläche
- Anwendungen: Streifenhobelmesser, rückenverzahnte Systeme, Wendeschneidplatten

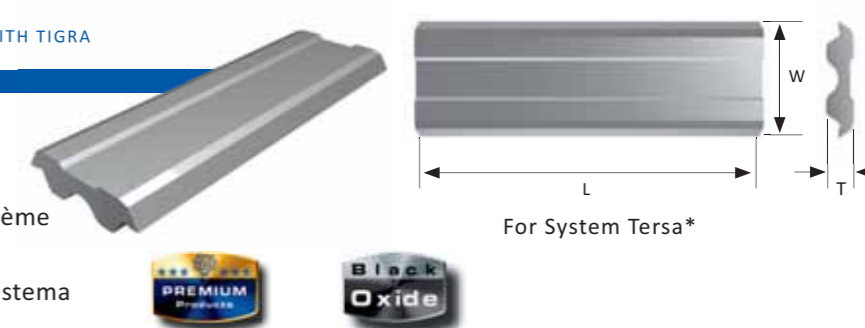
* EN Please compare with the pages 9-10.
* DE Bitte vergleichen Sie mit den Seiten 9-10.
* FR Veuillez comparer avec les pages 9-10.
* IT Confrontate con le pagine 9-10.
* ES Compárelo con las páginas 9-10.

EN Reversible knives for portable planers
 DE Wendeschneidplatten für Handhobel
 FR Plaquettes pour rabots électro portatifs
 IT Coltelli per piallatrici portatili
 ES Cuchillas para acepilladoras electricas



	L mm	W mm	T mm	Art.	
	56.0	5.5	1.1	013041	Adler
	75.5	5.5	1.1	013001	AEG, Bosch, Festo, Haffner, Kress, Mafell, Metabo, Scheer, Skil, Holz-Her
	78.0	5.5	1.1	013067	Virutex
	102.0	5.5	1.1	013061	AEG
	80.5	5.5	1.1	013010	ELU
	80.5	5.9	1.2	013043	ELU
	82.0	5.5	1.1	013020	AEG, B&D, Bosch, ALU, Fein, Felisatti, Haffner, Hitachi, Holz-Her, Mafell, Makita, Metabo, Peugeot, Ryobi, Skil

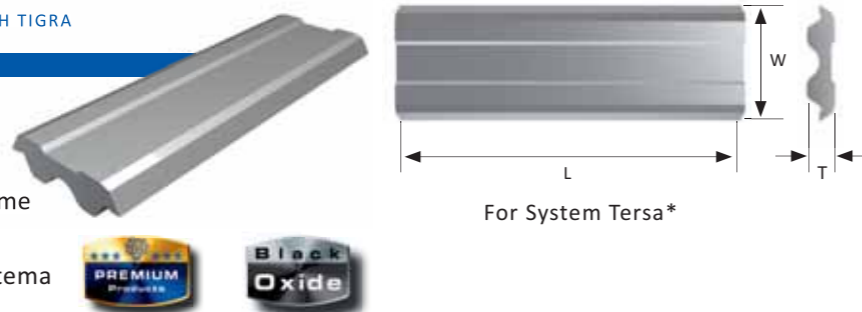
EN System Planer knives
 DE Systemhobelmesser
 FR Couteaux à raboter pour système
 IT Coltelli da pialla per sistema
 ES Cuchillas para cepillar para sistema



L mm	W mm	T mm	T10MG	T12SMG polished	HSS 6 % (M2)	HSS 18 % (T1)	HSS M42
			100847	159876	100395	114482	114539
80.0	10.0	2.3	100848	159945	100396	114484	114541
90.0	10.0	2.3	104398	159946	107546	114485	114542
100.0	10.0	2.3	055509	159948	100397	114487	114544
110.0	10.0	2.3	100849	159949	100398	114488	114545
115.0	10.0	2.3	105071	159950	104630	114489	114546
120.0	10.0	2.3	100851	159951	100399	114490	114547
125.0	10.0	2.3	104022	159952	107548	114491	114548
130.0	10.0	2.3	055510	159953	100400	114492	114549
135.0	10.0	2.3	103823	159954	103821	114493	114550
140.0	10.0	2.3	104766	159955	104613	114494	114551
150.0	10.0	2.3	100852	159957	100401	114496	114553
160.0	10.0	2.3	103943	159958	102716	114497	114554
170.0	10.0	2.3	100853	159959	100402	114498	114555
180.0	10.0	2.3	100854	159960	100403	114499	114556
185.0	10.0	2.3	105070	159961	102774	114500	114557
190.0	10.0	2.3	104399	159962	104808	114501	114558
200.0	10.0	2.3	105698	159964	104243	114502	114559
210.0	10.0	2.3	100855	159965	100404	114503	114560
220.0	10.0	2.3	104589	159966	104566	114504	114561
230.0	10.0	2.3	055511	159967	100405	114505	114562
235.0	10.0	2.3	103824	159968	101718	114506	114563
240.0	10.0	2.3	104043	159969	101720	114507	114564
250.0	10.0	2.3	100856	159970	100406	114508	114565
260.0	10.0	2.3	100857	159971	100407	114509	114566
265.0	10.0	2.3	104573	159972	104326	114510	114567
270.0	10.0	2.3	101673	159973	102982	114511	114568

* EN For use in Tersa-cutterheads only
 * DE Nur zur Verwendung in Tersa-Messerköpfen
 * FR Utilisation limitée aux porte outils de Tersa
 * IT Da usare solo su teste portacoltelli della Tersa
 * ES Sólo para empleo con portacuchillas de Tersa

EN System Planer knives
 DE Systemhobelmesser
 FR Couteaux à raboter pour système
 IT Coltelli da pialla per sistema
 ES Cuchillas para cepillar para sistema



L mm	W mm	T mm	T10MG	T12SMG polished	HSS 6% (M2)	HSS 18% (T1)	HSS M42	H.P.S.
280.0	10.0	2.3	100858	159974	100408	114512	114569	
300.0	10.0	2.3	100859	159975	100409	114513	114570	
310.0	10.0	2.3	055512	159976	100410	114514	114571	
320.0	10.0	2.3	107550	159977	104687	114515	114572	
330.0	10.0	2.3	100861	159978	100411	114516	114573	
350.0	10.0	2.3	100862	159979	100412	114517	114574	
360.0	10.0	2.3	100863	159980	100413	114518	114575	
400.0	10.0	2.3	100864	159981	100414	114519	114576	
410.0	10.0	2.3	055513	159982	100415	114520	114577	
415.0	10.0	2.3	107551	159983	105267	114521	114578	
420.0	10.0	2.3	100865	159984	100416	114522	114579	
430.0	10.0	2.3	055514	159985	100417	114523	114580	
450.0	10.0	2.3	100866	159986	100418	114524	114581	
500.0	10.0	2.3	100867	159987	100419	114525	114582	
510.0	10.0	2.3	055515	159988	100420	114526	114583	
520.0	10.0	2.3	055516	159989	100421	114527	114584	
530.0	10.0	2.3	100868	159990	100422	114528	114585	
540.0	10.0	2.3	100869	159991	100423	114529	114586	
600.0	10.0	2.3	104720	159992	103994	114530	114587	
610.0	10.0	2.3	055517	159993	100424	114531	114588	
630.0	10.0	2.3	055518	159994	100425	114532	114589	
635.0	10.0	2.3	102179	159995	103912	114533	114590	
640.0	10.0	2.3	100870	159996	100426	114534	114591	
650.0	10.0	2.3	055519	159997	100427	114535	114592	
710.0	10.0	2.3			114119	114536	114593	
810.0	10.0	2.3			113435	114537	114594	
1050.0	10.0	2.3			114599	114538	114595	
Coil 60 meters					115127	116526	115128	
Coil 120 meters					110719	115191	114791	115120
Packing paper coil (60 meters for paired packing)					112874	112874	112874	112874

* EN For use in TERSA-cutterheads only
 * DE Nur zur Verwendung in TERSA-Messerköpfen
 * FR Utilisation limitée aux porte outils de TERSA
 * IT Da usare solo su teste portacoltelli della TERSA
 * ES Sólo para empleo con portacuchillas de TERSA

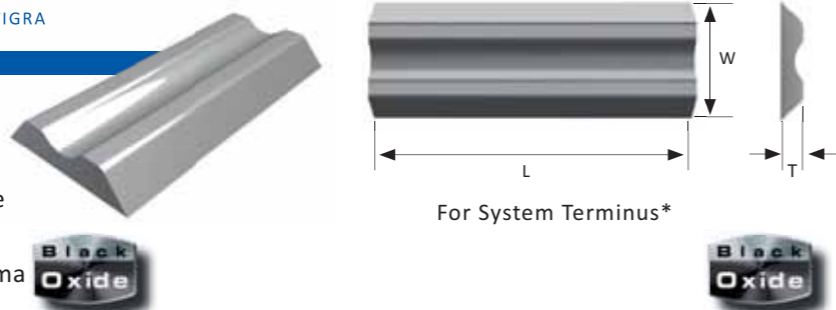
EN System Planer knives
 DE Systemhobelmesser
 FR Couteaux à raboter pour système
 IT Coltelli da pialla per sistema
 ES Cuchillas para cepillar para sistema



L mm	W mm	T mm	T10MG	T12SMG polished	HSS 18% (T1)
10.0	16.0	3.0	102953	160012	114697
30.0	16.0	3.0	102777	160014	114699
40.0	16.0	3.0	102954	160015	114700
50.0	16.0	3.0	102778	160016	114701
60.0	16.0	3.0	100837	160017	114702
65.0	16.0	3.0	107536	160018	114703
80.0	16.0	3.0	100838	160019	114704
100.0	16.0	3.0	055502	160020	114705
115.0	16.0	3.0	106848	160021	114706
130.0	16.0	3.0	055503	160022	114707
140.0	16.0	3.0	107537	160023	114708
150.0	16.0	3.0	100839	160024	114709
160.0	16.0	3.0	105003	160025	114710
170.0	16.0	3.0	055504	160026	114711
180.0	16.0	3.0	100840	160028	114712
190.0	16.0	3.0	100841	160029	114713
210.0	16.0	3.0	100842	160030	114714
220.0	16.0	3.0	107538	160031	114715
230.0	16.0	3.0	054753	160032	114716
235.0	16.0	3.0	100844	160033	114717
240.0	16.0	3.0	055505	160034	114718
260.0	16.0	3.0	100845	160035	114719
270.0	16.0	3.0	055506	160036	114720
285.0	16.0	3.0	125900	160037	122896
300.0	16.0	3.0	102493	160038	114721
310.0	16.0	3.0	100846	160039	114722
460.0	16.0	3.0	055507	160040	114723
650.0	16.0	3.0	055508	160041	114724
1050.0	16.0	3.0			114727

* EN For use in Centrolock-cutterheads only
 * DE Nur zur Verwendung in Centrolock-Messerköpfen
 * FR Utilisation limitée aux porte outils de Centrolock
 * IT Da usare solo su teste portacoltelli della Centrolock
 * ES Sólo para empleo con portacuchillas de Centrolock

EN System Planer knives
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 ES Cuchillas para cepillar para sistema



L mm	W mm	T mm	T10MG	HSS 18% (T1)
50.0	14.0	2.55	100796	114649
60.0	14.0	2.55	100803	114650
80.0	14.0	2.55	100804	114651
100.0	14.0	2.55	100805	114652
110.0	14.0	2.55	100806	114653
120.0	14.0	2.55	100807	114654
130.0	14.0	2.55	055496	114655
136.0	14.0	2.55	107532	114656
140.0	14.0	2.55	100808	114657
150.0	14.0	2.55	100809	114658
160.0	14.0	2.55	100811	114659
170.0	14.0	2.55	100812	114660
180.0	14.0	2.55	100813	114661
190.0	14.0	2.55	100814	114662
200.0	14.0	2.55	100815	114663
210.0	14.0	2.55	100816	114664
220.0	14.0	2.55	100817	114665
230.0	14.0	2.55	054752	114666
240.0	14.0	2.55	100818	114667
250.0	14.0	2.55	100819	114668
255.0	14.0	2.55	107533	114669
260.0	14.0	2.55	100820	114670
270.0	14.0	2.55	100821	114671
275.0	14.0	2.55	107534	114672
280.0	14.0	2.55	100822	114673

L mm	W mm	T mm	T10MG	HSS 18% (T1)
300.0	14.0	2.55	100823	114674
310.0	14.0	2.55	055497	114675
330.0	14.0	2.55	107535	114676
350.0	14.0	2.55	100824	114677
360.0	14.0	2.55	100825	114678
400.0	14.0	2.55	100826	114679
410.0	14.0	2.55	055498	114680
420.0	14.0	2.55	100828	114681
430.0	14.0	2.55	100829	114682
450.0	14.0	2.55	100830	114683
480.0	14.0	2.55	100940	114684
500.0	14.0	2.55	104977	114685
510.0	14.0	2.55	055499	114686
520.0	14.0	2.55	100831	114687
530.0	14.0	2.55	100832	114688
610.0	14.0	2.55	055500	114689
620.0	14.0	2.55	100833	114690
630.0	14.0	2.55	100834	114691
640.0	14.0	2.55	100835	114692
710.0	14.0	2.55		114694
810.0	14.0	2.55		114695
1050.0	14.0	2.55		114696

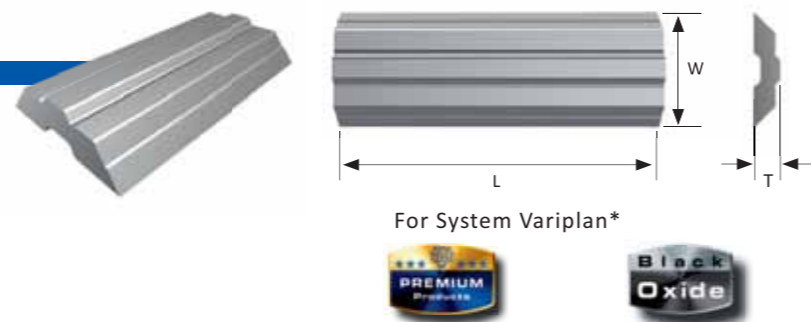
* EN For use in Terminus-cutterheads only
 * DE Nur zur Verwendung in Terminus-Messerköpfen
 * FR Utilisation limitée aux porte outils de Terminus
 * IT Da usare solo su teste portacoltelli della Terminus
 * ES Sólo para empleo con portacuchillas de Terminus

EN System Planer knives
 DE Systemhobelmesser
 FR Couteaux à raboter pour système
 IT Coltelli da pialla per sistema
 ES Cuchillas para cepillar para sistema



L mm	W mm	T mm	T10MG	T12SMG polished	HSS 6% (M2)	HSS 18% (T1)
50.0	12.0	2.7	100876	161477	100896	114762
80.0	12.0	2.7	100879	161478	100897	114763
100.0	12.0	2.7	100880	161479	100898	114764
120.0	12.0	2.7	100881	161480	100899	114765
130.0	12.0	2.7	055520	161481	055488	114766
136.0	12.0	2.7	100883	161482	100900	114767
150.0	12.0	2.7	100884	161483	100901	114768
170.0	12.0	2.7	100885	161484	100902	114769
180.0	12.0	2.7	055521	161485	055489	114770
190.0	12.0	2.7	100886	161486	100904	114771
210.0	12.0	2.7	100887	161487	100905	114772
230.0	12.0	2.7	055522	161489	055490	114773
240.0	12.0	2.7	100890	161490	100906	114774
260.0	12.0	2.7	111091	161491	110036	116026
310.0	12.0	2.7	101675	161492	103165	114775
400.0	12.0	2.7	100891	161493	100907	114776
410.0	12.0	2.7	055523	161494	055491	114777
420.0	12.0	2.7	100892	161495	100908	114778
430.0	12.0	2.7	100893	161496	100909	114779
500.0	12.0	2.7	100894	161497	100910	114780
510.0	12.0	2.7	055524	161498	055492	114781
520.0	12.0	2.7	055525	161499	055493	114782
530.0	12.0	2.7	055526	161500	055494	114783
630.0	12.0	2.7	107553	161502	103814	114785
640.0	12.0	2.7	107554	161503	107474	114786
650.0	12.0	2.7	055527	161504	055495	114787
710.0	12.0	2.7			101046	114788
810.0	12.0	2.7			108226	114789
1050.0	12.0	2.7			114760	114790
Coil 120 meters					112205	
Packing paper coil (60 meters for paired packing)					112877	

* EN For use in Centrofix/Centrostar/Quickfix-cutterheads only
 * DE Nur zur Verwendung in Centrofix/Centrostar/Quickfix-Messerköpfen
 * FR Utilisation limitée aux porte outils de Centrofix/Centrostar/Quickfix
 * IT Da usare solo su teste portacoltelli della Centrofix/Centrostar/Quickfix
 * ES Sólo para empleo con portacuchillas de Centrofix/Centrostar/Quickfix



EN System Planer knives
 DE Systemhobelmesser
 FR Couteaux à raboter pour système
 IT Coltelli da pialla per sistema
 ES Cuchillas para cepillar para sistema

For System Variplan*

L mm	W mm	T mm	T10MG	T12SMG polished	HSS 18% (T1)
80	16.0	3.7	116766	159910	116739
100	16.0	3.7	116767	159911	116740
120	16.0	3.7	116768	159912	116741
130	16.0	3.7	109662	159913	116319
136	16.0	3.7	116769	159914	116742
150	16.0	3.7	116770	159915	116743
170	16.0	3.7	108654	159916	116744
180	16.0	3.7	116771	159917	116745
190	16.0	3.7	116772	159918	116746
210	16.0	3.7	107585	159919	116747
230	16.0	3.7	116773	159920	116320
240	16.0	3.7	116774	159921	116321
400	16.0	3.7	116775	159922	116748
410	16.0	3.7	107586	159923	116322
500	16.0	3.7	116778	159926	116751
510	16.0	3.7	116779	159927	116752
520	16.0	3.7	116780	159928	116753
530	16.0	3.7	116781	159929	116754
540	16.0	3.7	116782	159930	116755
600	16.0	3.7	116783	159931	116756
630	16.0	3.7	116785	159933	116758
640	16.0	3.7	116786	159934	116759
1050	16.0	3.7			115845

* EN For use in Variplan-cutterheads only
 * DE Nur zur Verwendung in Variplan-Messerköpfen
 * FR Utilisation limitée aux porte outils de Variplan
 * IT Da usare solo su teste portacoltelli della Variplan
 * ES Sólo para empleo con portacuchillas de Variplan



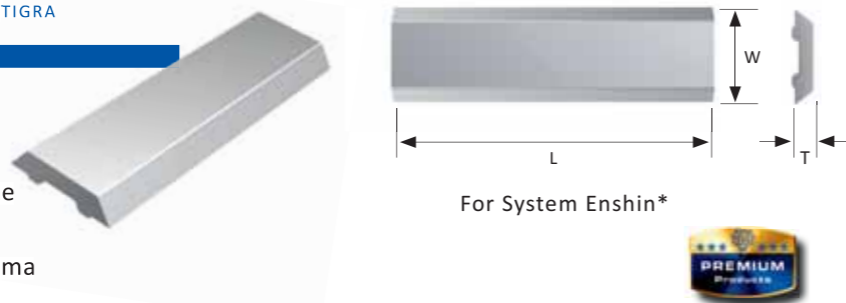
EN System Planer knives
 DE Systemhobelmesser
 FR Couteaux à raboter pour système
 IT Coltelli da pialla per sistema
 ES Cuchillas para cepillar para sistema

For System Sinus

L mm	W mm	T mm	T10MG	T12SMG polished	HSS 18% (T1)
80	16.0	2.5	116711	159874	130320
100	16.0	2.5	116712	159880	116681
120	16.0	2.5	116713	159881	130322
130	16.0	2.5	116714	159882	130323
150	16.0	2.5	116716	159884	130325
160	16.0	2.5	116717	159885	130326
180	16.0	2.5	116718	159886	130327
190	16.0	2.5	116719	159887	130328
200	16.0	2.5	116720	159888	130329
210	16.0	2.5	116721	159889	130330
230	16.0	2.5	116723	159891	128353
240	16.0	2.5	116724	159893	128354
250	16.0	2.5	116725	159894	130331
260	16.0	2.5	116726	159895	130332
300	16.0	2.5	116727	159896	130333
310	16.0	2.5	116728	159897	130334
400	16.0	2.5	116729	159898	130335
410	16.0	2.5	116730	159899	130336
500	16.0	2.5	116732	159901	130338
510	16.0	2.5	116733	159902	130339
610	16.0	2.5	116734	159903	130292
630	16.0	2.5	116735	159904	130340
640	16.0	2.5	116736	159905	130341
1050	16.0	2.5			130343
1350	16.0	2.5			115486

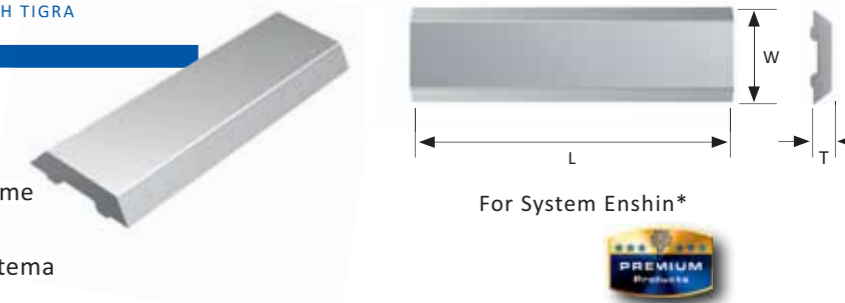
* EN For use in Sinus-cutterheads only
 * DE Nur zur Verwendung in Sinus-Messerköpfen
 * FR Utilisation limitée aux porte outils de Sinus
 * IT Da usare solo su teste portacoltelli della Sinus
 * ES Sólo para empleo con portacuchillas de Sinus

EN System Planer knives
 DE Systemhobelmesser
 FR Couteaux à raboter pour système
 IT Coltelli da pialla per sistema
 ES Cuchillas para cepillar para sistema



	L	W	T	T10MG	T12SMG
	mm	mm	mm		polished
	80	12.7	2.6	116794	159853
	100	12.7	2.6	116796	159854
	130	12.7	2.6	116797	159855
	150	12.7	2.6	116798	159856
	170	12.7	2.6	116799	159857
	180	12.7	2.6	116800	159858
	190	12.7	2.6	116801	159859
	210	12.7	2.6	116802	159860
	230	12.7	2.6	116803	159861
	240	12.7	2.6	116804	159862
	640	12.7	2.6	116805	159863

EN System Planer knives
 DE Systemhobelmesser
 FR Couteaux à raboter pour système
 IT Coltelli da pialla per sistema
 ES Cuchillas para cepillar para sistema



	L	W	T	T12SMG
	mm	mm	mm	
 Enshin-8B	100	8	2	161505
	130	8	2	161506
	160	8	2	161507
	180	8	2	161508
	230	8	2	161509
	250	8	2	161510
	260	8	2	161511
	300	8	2	161512
	400	8	2	161513
	450	8	2	161514
	500	8	2	161515
	510	8	2	161516
	650	8	2	161517



	L	W	T	HSS
	mm	mm	mm	6% (M2)
	80	12.0	2.7	116787
	100	12.0	2.7	116788
	130	12.0	2.7	116316
	150	12.0	2.7	116789
	170	12.0	2.7	116790
	180	12.0	2.7	116317
	190	12.0	2.7	116791
	210	12.0	2.7	116792
	230	12.0	2.7	116318
	240	12.0	2.7	116793
	1050	12.0	2.7	115846

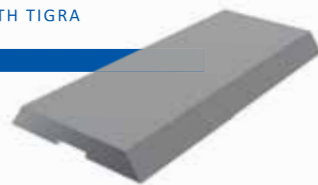


	L	W	T	T12SMG
	mm	mm	mm	
 Enshin-8C	100	8	2	161518
	130	8	2	161519
	160	8	2	161520
	180	8	2	161521
	230	8	2	161522
	250	8	2	161523
	260	8	2	161524
	300	8	2	161526
	400	8	2	161527
	450	8	2	161528
	500	8	2	161529
	510	8	2	161530
	650	8	2	161531

* EN For use in Enshin-cutterheads only
 * DE Nur zur Verwendung in Enshin-Messerköpfen
 * FR Utilisation limitée aux porte outils de Enshin
 * IT Da usare solo su teste portacoltelli della Enshin
 * ES Sólo para empleo con portacuchillas de Enshin

* EN For use in Enshin-cutterheads only
 * DE Nur zur Verwendung in Enshin-Messerköpfen
 * FR Utilisation limitée aux porte outils de Enshin
 * IT Da usare solo su teste portacoltelli della Enshin
 * ES Sólo para empleo con portacuchillas de Enshin

EN System Planer knives
 DE Systemhobelmesser
 FR Couteaux à raboter pour système
 IT Coltelli da pialla per sistema
 ES Cuchillas para cepillar para sistema

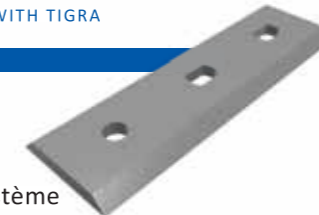


For System Bulldozer



L mm	W mm	T mm	T10MG	T12SMG polished
60.0	13.6	1.8	047422	161533
70.0	13.6	1.8	013728	161534
80.0	13.6	1.8	046288	161535
100.0	13.6	1.8	013713	161536
110.0	13.6	1.8	047423	161537
120.0	13.6	1.8	013715	161538
130.0	13.6	1.8	013716	161539
140.0	13.6	1.8	013723	161540
150.0	13.6	1.8	013718	161541
160.0	13.6	1.8	013726	161542
180.0	13.6	1.8	013719	161543
190.0	13.6	1.8	013725	161544
200.0	13.6	1.8	013720	161545
220.0	13.6	1.8	049247	161546
230.0	13.6	1.8	013721	161547
240.0	13.6	1.8	040337	161548
245.0	13.6	1.8	038423	161552
250.0	13.6	1.8	013722	161549
260.0	13.6	1.8	035440	161550

EN System Planer knives
 DE Systemhobelmesser
 FR Couteaux à raboter pour système
 IT Coltelli da pialla per sistema
 ES Cuchillas para cepillar para sistema

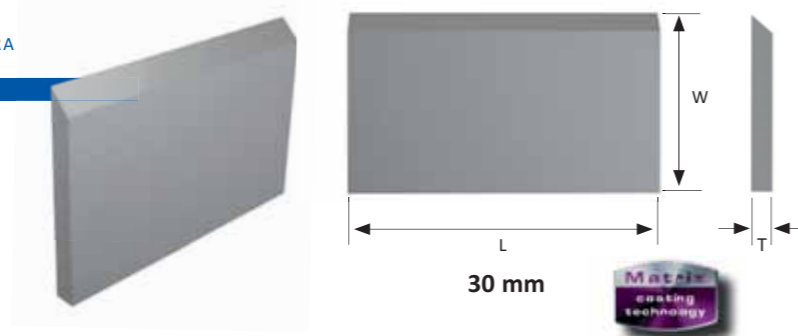


For System Barke/Brück/ESTA

L mm	W mm	T mm	H.P.S.	HSS M42	Suitable for ...	L mm	W mm	T mm	Backing plate
110.0	19.0	1.0	101798	142053	Mafell	110.0	25.0	2.0	142369
115.0	18.6	1.0	142069	142104		120.0	25.0	2.0	142370
120.0	19.0	1.0	051731	142106		130.0	25.0	2.0	142371
130.0	19.0	1.0	049685	142107		150.0	25.0	2.0	142372
150.0	19.0	1.0	131397	142108					
161.0	19.0	1.0	142074	142109	e.g. Mafell				
170.0	18.6	1.0	142362	142363	Mafell				
180.0	19.0	1.0	109998	142111		180.0	25.0	2.0	142374
186.0	19.0	1.0	142070	142112		186.0	25.0	2.0	142375
190.0	19.0	1.0	051730	142113		190.0	25.0	2.0	142376
200.0	19.0	1.0	130305	142115	HolzHer / ProTool / Festool	200.0	25.0	2.0	142377
205.0	19.0	1.0	142075	142116		230.0	25.0	2.0	142378
230.0	19.0	1.0	050210	142127					
245.0	19.0	1.0	142072	142128	HolzHer / ProTool / Festool	250.0	25.0	2.0	142379
250.0	19.0	1.0	142073	142129					
260.0	17.2	1.0	142365	-	Scheppach	260.0	16.6	2.0	142380
260.0	19.0	1.0	127955	142133	<u>Not</u> for Felder	260.0	25.0	2.0	142381
280.0	18.6	1.0	142099	142153	Mafell				
300.0	19.0	1.0	142100	142154	HolzHer / ProTool / Makita				
310.0	19.0	1.0	130306	142155	<u>Not</u> for Felder/Hammer	310.0	25.0	2.0	142383
320.0	17.2	1.0	142366	-	Scheppach	320.0	16.6	2.0	142384
320.0	18.6	1.0	142367	142368	Mafell				
320.0	19.0	1.0	101799	142156		320.0	25.0	2.0	142385
350.0	19.0	1.0	134298	142157	HolzHer / ProTool				
400.0	19.0	1.0	133960	142158		400.0	25.0	2.0	142386
410.0	19.0	1.0	113338	142159	<u>Not</u> for Felder/Hammer	410.0	25.0	2.0	142387
500.0	19.0	1.0	110742	142160		500.0	25.0	2.0	142388
510.0	19.0	1.0	109381	142161	<u>Not</u> for Felder	510.0	25.0	2.0	142389
520.0	19.0	1.0	142101	142162		520.0	25.0	2.0	142390
530.0	19.0	1.0	133883	142163		530.0	25.0	2.0	142391
610.0	19.0	1.0	142102	142164		610.0	25.0	2.0	142392
630.0	19.0	1.0	108937	142165		630.0	25.0	2.0	142393
640.0	19.0	1.0	132415	142166		640.0	25.0	2.0	142394

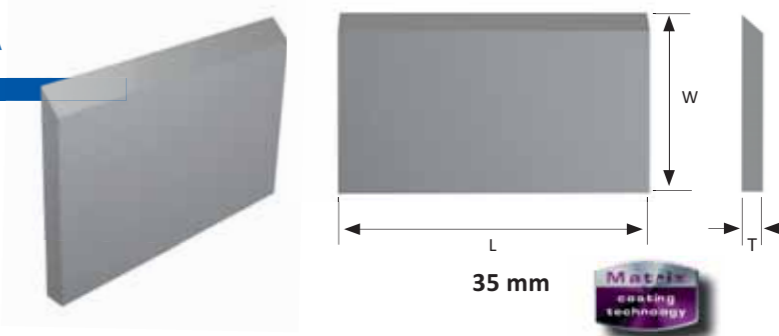
EN The backing plates are also available in W = 18 mm.
 DE Stützplatten sind auch in W = 18 mm lieferbar.
 FR Les porte-plaquettes sont également disponibles en W = 18 mm.
 IT Le piastre di supporto sono anche disponibili in W = 18 mm.
 ES Las placas de soporte también están disponibles en W = 18 mm.

EN HSS/Matrix planer knives
 DE HSS/Matrix Hobelmesser
 FR Fers de raboteuse HSS/Matrix
 IT Coltelli da pialla HSS/Matrix
 ES Cuchillas en HSS/Matrix



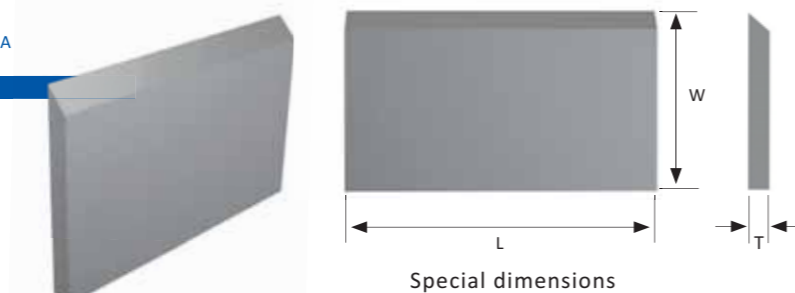
L mm	W mm	T mm	HSS		Matrix coating technology
			6 % (M2)	18 % (T1)	
60	30.0	3.0	030152	111908	120140
80	30.0	3.0	030153	111913	120141
100	30.0	3.0	030154	111914	120142
120	30.0	3.0	030157	111916	120144
130	30.0	3.0	030159	111917	120145
150	30.0	3.0	030162	111918	120146
160	30.0	3.0	030163	111919	120147
170	30.0	3.0	030164	111920	120148
180	30.0	3.0	030165	111921	120149
210	30.0	3.0	030168	111922	120150
230	30.0	3.0	030171	111923	120151
240	30.0	3.0	030172	111924	120153
260	30.0	3.0	030174	111925	120154
300	30.0	3.0	030175	111926	120155
310	30.0	3.0	030176	111927	120156
350	30.0	3.0	030178	111928	120157
400	30.0	3.0	030182	111929	120158
410	30.0	3.0	030183	111930	120159
500	30.0	3.0	030186	111931	120160
510	30.0	3.0	030187	111932	120161
520	30.0	3.0	101376	111933	120162
530	30.0	3.0	030188	111934	120163
600	30.0	3.0	030190	111935	120164
610	30.0	3.0	030191	111936	120165
630	30.0	3.0	030192	111937	120166
640	30.0	3.0	030194	111938	120167
710	30.0	3.0	030198	111939	120168
810	30.0	3.0	030201	111940	120169
820	30.0	3.0	101051	111941	120170
1050	30.0	3.0	030249	111942	120171

EN HSS/Matrix planer knives
 DE HSS/Matrix Hobelmesser
 FR Fers de raboteuse HSS/Matrix
 IT Coltelli da pialla HSS/Matrix
 ES Cuchillas en HSS/Matrix



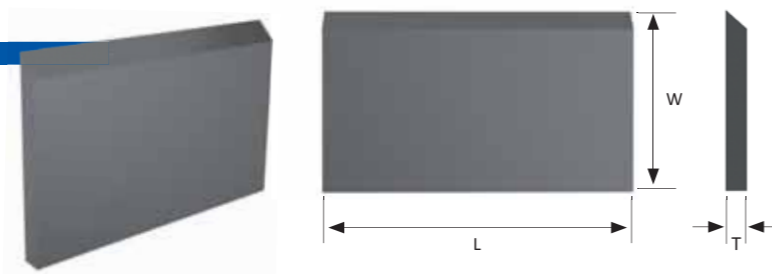
L mm	W mm	T mm	HSS		Matrix coating technology
			6 % (M2)	18 % (T1)	
60	35.0	3.0		111944	120173
80	35.0	3.0		111945	120174
100	35.0	3.0		111946	120175
110	35.0	3.0		111947	120176
120	35.0	3.0		111948	120178
130	35.0	3.0	030210	111949	120179
150	35.0	3.0	030211	111950	120180
160	35.0	3.0	030212	111951	120181
170	35.0	3.0	030213	111952	120182
180	35.0	3.0	030214	111953	120183
210	35.0	3.0	030217	111954	120185
230	35.0	3.0	030218	111955	120186
240	35.0	3.0	107570	111956	120188
260	35.0	3.0	030220	111957	120189
300	35.0	3.0	048006	111958	120190
310	35.0	3.0	030222	111959	120191
350	35.0	3.0	107571	111960	120192
400	35.0	3.0	030225	111961	120193
410	35.0	3.0	030226	111962	120194
500	35.0	3.0	030230	111963	120195
510	35.0	3.0	030231	111964	120196
520	35.0	3.0	030232	111965	120197
530	35.0	3.0	030233	111966	120198
600	35.0	3.0	030234	111967	120199
610	35.0	3.0	030235	111968	120200
630	35.0	3.0	030236	111969	120201
640	35.0	3.0	030237	111970	
710	35.0	3.0	030240	111971	
810	35.0	3.0	030243	111972	
820	35.0	3.0	101052	111973	
1050	35.0	3.0	030252	111974	120208

EN HSS planer knives
 DE HSS Hobelmesser
 FR Fers de raboteuse HSS
 IT Coltelli da pialla HSS
 ES Cuchillas en HSS



L mm	W mm	T mm	HSS 6% (M2)	HSS 18% (T1)
1050	20.0	2.5	106992	122065
1050	25.0	2.5	106994	116185
1050	20.0	3.0	101943	122007
1050	25.0	3.0	101030	111975
1050	32.0	3.0	101938	

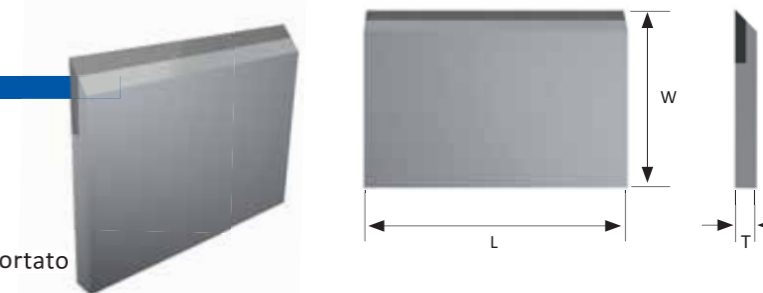
EN Solid carbide planer knives
 DE Vollhartmetall Hobelmesser
 FR Couteaux à raboter au carbure massif
 IT Coltelli da pialla in HM integrale
 ES Cuchillas metal duro integral



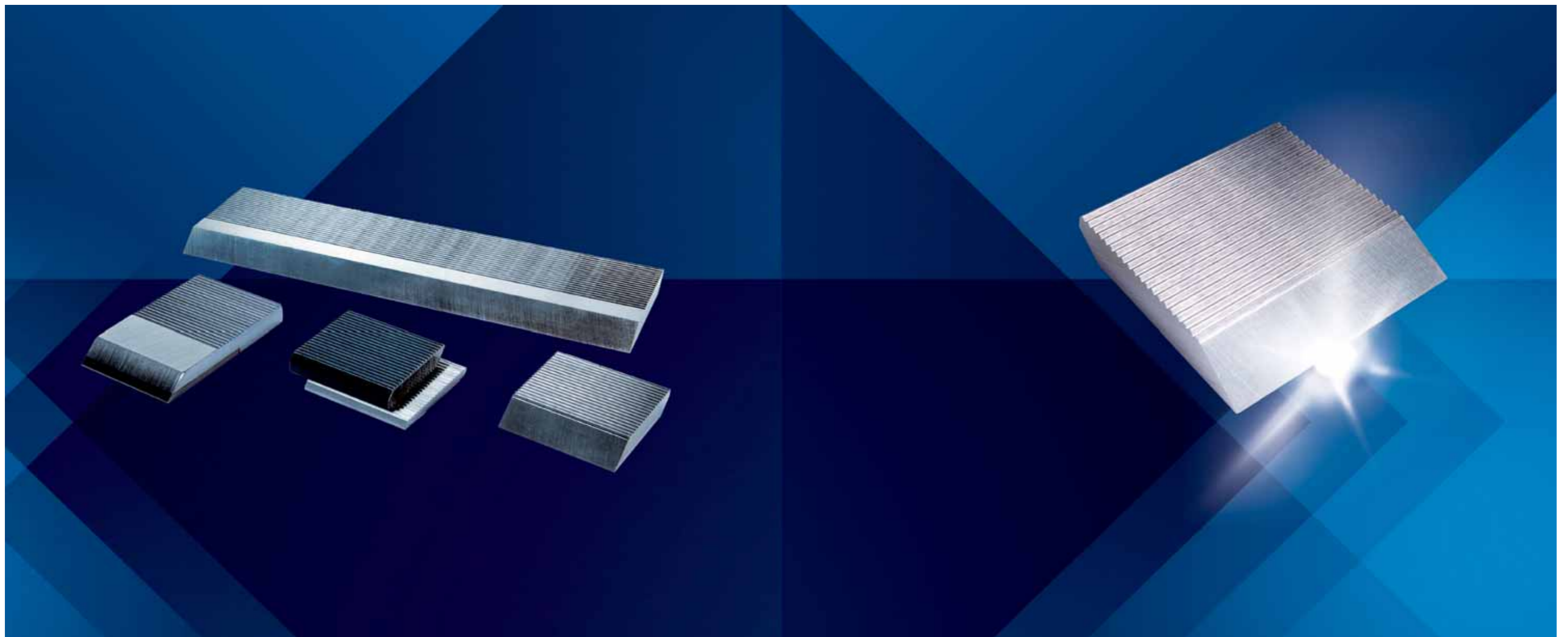
L mm	W mm	T mm	T10MG
60.0	30.0	3.0	050050
80.0	30.0	3.0	050051
100.0	30.0	3.0	042029
110.0	30.0	3.0	050053
120.0	30.0	3.0	050055
130.0	30.0	3.0	044900
150.0	30.0	3.0	042030
180.0	30.0	3.0	050057
210.0	30.0	3.0	050059
230.0	30.0	3.0	049223
240.0	30.0	3.0	106296
260.0	30.0	3.0	049222
310.0	30.0	3.0	050061

EN Only for use in special clamping systems for carbide knives, not in conventional planing heads!
 DE Nur in Spezialklemmsystemen für Vollhartmetallhobelmesser einsetzen, nicht in herkömmlichen Hobelköpfen!
 FR Seulement pour utilisation dans des systèmes de serrage spéciaux pour les couteaux en carbure, pas dans les têtes de rabotage conventionnelles!
 IT Solo per l'impiego in sistemi di serraggio speciali per coltelli in metallo duro, non nella testa di piallatura convenzionale!
 ES Sólo para uso en sistemas especiales de sujeción para cuchillas de carburo, no en cabezales de cepillado convencionales.

EN T.C.T. planer knives
 DE HM-bestückte Hobelmesser
 FR Couteaux à mise rapportée carbure
 IT Coltelli da pialla con metallo duro riportato
 ES Cuchillas con metal duro

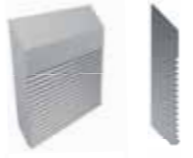







L mm	T mm	W = 25 mm	W = 30 mm	W = 35 mm
60.0	3.0	114850	029969	030021
80.0	3.0	114851	029970	030022
100.0	3.0	113770	029972	030024
110.0	3.0	114852	029973	030025
120.0	3.0	111723	029974	030026
130.0	3.0	103946	029975	030027
150.0	3.0	105829	029979	030029
160.0	3.0	029943	029980	030030
170.0	3.0	114853	029981	030031
180.0	3.0	105830	029982	030032
200.0	3.0	110737	029986	030034
210.0	3.0	108651	029987	030035
230.0	3.0	112774	029989	030036
240.0	3.0	114854	029991	030038
250.0	3.0	029952	029993	030039
260.0	3.0	104917	029994	030040
270.0	3.0	107022	101697	107555
300.0	3.0	112585	029996	030041
310.0	3.0	029955	029997	030042
330.0	3.0	114855	002238	055837
350.0	3.0	114856	029998	030044
400.0	3.0	029957	029999	107556
410.0	3.0	104919	030001	030047
500.0	3.0	029960	030006	030049
510.0	3.0	104920	030007	030050
520.0	3.0	109690	030009	103998
530.0	3.0		051130	030051
600.0	3.0		030011	030052
610.0	3.0		030012	030054
630.0	3.0		030013	030055
640.0	3.0		030014	030057
680.0	3.0		114849	106194
710.0	3.0		030016	030058
810.0	3.0		030018	030059
820.0	3.0		100445	100446
1010.0	3.0		030131	030137
1050.0	3.0	104830	030132	030138



- EN Knives for back corrugated cutterheads
- DE Messer für rückenverzahnte Messerköpfe
- FR Couteaux pour outils crantés
- IT Coltelli per teste con zigrinatura
- ES Cuchillas corrugadas

EN Knives for back corrugated cutterheads
 DE Messer für rückenverzahnte Messerköpfe
 FR Couteaux pour outils crantés
 IT Coltelli per teste con zigrinatura
 ES Cuchillas corrugadas

	EN HSS / H.P.S. / Matrix blanks, back corrugated DE HSS / H.P.S. / Matrix Blanketts, rückenverzahnt FR HSS / H.P.S. / Matrix fers crantés IT HSS / H.P.S. / Matrix placchette, con zigrinatura ES HSS / H.P.S. / Matrix cuchillas corrugadas	8 mm 8 mm 8 mm 8 mm 8 mm	134 - 135
	EN HSS blanks, back corrugated DE HSS Blanketts, rückenverzahnt FR HSS fers crantés IT HSS placchette, con zigrinatura ES HSS cuchillas corrugadas	4-6 mm 4-6 mm 4-6 mm 4-6 mm 4-6 mm	136
	EN HSS blanks, back corrugated DE HSS Blanketts, rückenverzahnt FR HSS fers crantés IT HSS placchette, con zigrinatura ES HSS cuchillas corrugadas	inch	137
	EN T.C.T. blanks, back corrugated DE HM-bestückte Blanketts, rückenverzahnt FR Fers crantés au carbure rapportée IT Placchette con metallo duro riportato, con zigrinatura ES Cuchillas metal duro, corrugadas		138 - 139
	EN SuperPac - T.C. knives and backing plates for back corrugated cutterheads DE SuperPac - HM-Messer und Stützplatten für rückenverzahnte Messerköpfe FR SuperPac - Couteaux au carbure et supports pour outils crantés IT SuperPac - Coltelli HW e supporti per teste con zigrinatura ES SuperPac - Placas de metal duro y placas de apoyo para fresas dentadas		140 - 141
	EN For MicroSystem - T.C. knives and backing plates for back corrugated cutterheads DE Für MicroSystem - HM-Messer und Stützplatten für rückenverzahnte Messerköpfe FR Pour MicroSystem - Couteaux au carbure et supports pour outils crantés IT Per MicroSystem - Coltelli HW e supporti per teste con zigrinatura ES Para MicroSystem - Placas de metal duro y placas de apoyo para fresas dentadas		142

EN Knives for back corrugated cutterheads - Grades and their applications
 DE Messer für rückenverzahnte Messerköpfe - Sorten und ihre Anwendungen
 FR Couteaux pour outils crantés - Les nuances et leurs applications
 IT Coltelli per teste con zigrinatura - I tipi e le loro applicazioni
 ES Cuchillas corrugadas - Calidades y sus aplicaciones

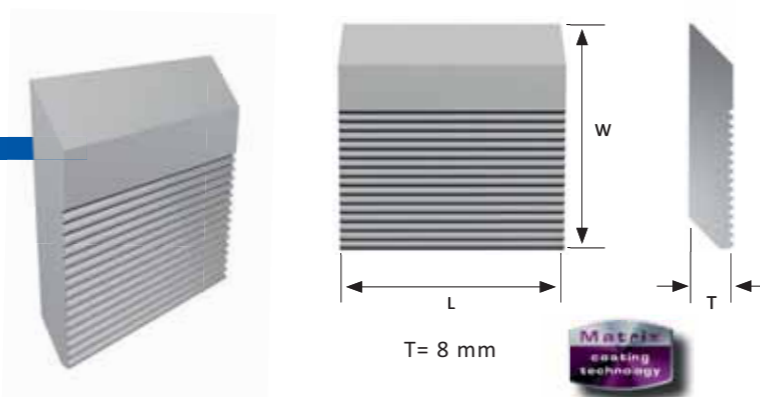
EN TIGRA grade DE TIGRA - Sorte FR Nuance TIGRA IT Tipo TIGRA ES Calidad TIGRA	Compositon Zusammensetzung Composition Composizione Composición	Hardness Härte Dureté Durezza Dureza	Toughness Zähigkeit Ténacité Tenacità Tenacidad	Bending strength Biegebruchfestigkeit Résistance à la flexion Resistenza flessionale Resistencia a la flexión	EN Plastics DE Plastik FR Plastiques IT Plastica ES Plásticos	HDF HDF HDF HDF	MDF MDF MDF MDF	Chipboard Spanplatte Panneaux de particule Truciolare Panel de aglomerado	Hardwood Hartholz Bois dur Legno duro Madera dura	Softwood Weichholz Bois tendre Legno tenero Madera blanda	Main usage Hauptverwendung Usage principal Usò principale Usò principal
HSS	HSS 6 % (M2)	⬇️	⬆️	⬆️	○	⊖	⊖	○	✔️	✔️	EN Universal, small and medium batches DE Universell, Klein- und Mittelserien FR Universel, séries petites et moyennes IT Universale, lotti piccoli e medi ES Universal, pequeños y medianos lotes
H.P.S.	CrV	⬇️	⬆️	↔️	⊖	⊖	⊖	⊖	○	✔️	EN Softwood, low price demands DE Weichholz, preisgünstig FR Bois tendre, prix bas IT Legni teneri, costo basso ES Madera blanda, bajo costo
T.C.T.	carbide tipped	➡️	↔️	⬆️	✔️	○	○	✔️	✔️	✔️	EN Higher lifetime demands, wood, MDF DE Hohe Standzeitanforderungen, Holz, MDF FR Applications de durabilité, bois, MDF IT Elevata esigenza di durata, legno, MDF ES Demandas altas vida de la herramienta, madera, MDF
Tungsten carbide	various grades	⬆️	➡️	↔️	✔️	✔️	✔️	✔️	✔️	✔️	EN Highest lifetime demands, multiple resharpening DE Höchste Standzeitanforderungen, mehrfaches Nachschärfen FR Applications de durabilité maximisée et nombreux affûtages IT Massima esigenza di durata, affilatura multipla ES Demandas más exigentes, múltiple reafilado
Matrix	HSS with special coating	↔️	➡️	⬆️	○	⊖	⊖	⊖	✔️	✔️	EN Long lifetime in wood, good resharpening DE Lange Standwege in Holz, gut zum Nachschärfen FR Longue durée de vie en bois, affûtage facile IT Durata lunga in legno, buona affilatura ES Larga vida útil de la madera, afilado fácil

✔️ best performance
 ⬆️ very good performance
 ○ acceptable
 ⊖ not suitable

EN For technical data, please refer to the pages 8-9.
 DE Die technischen Daten entnehmen Sie bitte den Seiten 8-9.
 FR Pour les données techniques, veuillez voir aux pages 8-9.

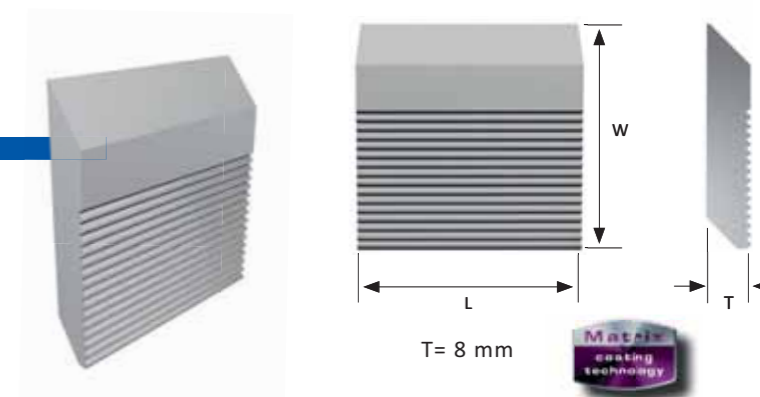
IT Per i dati tecnici, fare riferimento alle pagine 8-9.
 ES Para los datos técnicos, consulte las páginas 8-9.

EN Back corrugated blanks
 DE Rückenverzahnte Blanketts
 FR Fers crantés
 IT Placchette con zigrinatura
 ES Cuchillas corrugadas

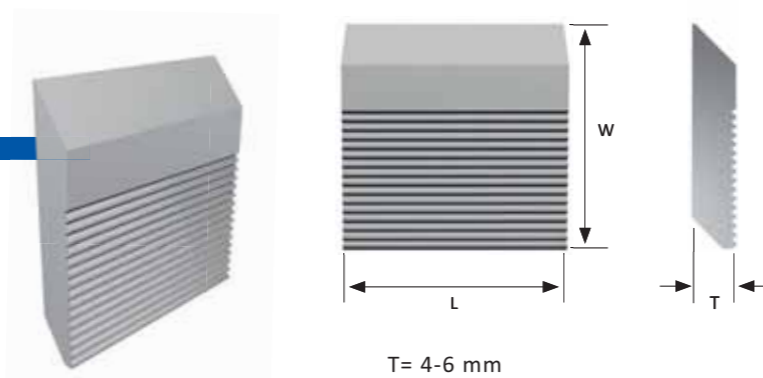


L	W	T	HSS	H.P.S.	Matrix coating technology
mm	mm	mm	6 % (M2)		
40	40	8.0	030289	103456	120287
50	40	8.0	030290	103457	120269
60	40	8.0	030291	103458	120270
70	40	8.0	030292	103459	120271
80	40	8.0	030293	103460	120272
100	40	8.0	030295	103462	120274
130	40	8.0	030297	103465	120277
150	40	8.0	030298	103466	120278
170	40	8.0	030299	103467	120279
180	40	8.0	030300	103468	120280
200	40	8.0	030301	103469	120281
210	40	8.0	030302	103470	120282
260	40	8.0	030304	103472	120284
650	40	8.0	030306	103473	120285
40	50	8.0	030307	103474	120288
50	50	8.0	030308	103475	120289
60	50	8.0	030309	103476	120290
70	50	8.0	030310	103477	120291
80	50	8.0	030311	103478	120292
90	50	8.0	030312	103479	120293
100	50	8.0	030313	103480	120294
110	50	8.0	047398	103481	120295
120	50	8.0	030314	103482	120296
130	50	8.0	030315	103483	120297
150	50	8.0	030316	103484	120298
170	50	8.0	030317	103485	120299
180	50	8.0	030318	103486	120300
200	50	8.0	030319	103488	120301
210	50	8.0	030320	103489	120302
230	50	8.0	030321	103490	120303
260	50	8.0	030322	103491	120304
650	50	8.0	030324	103492	120305

EN Back corrugated blanks
 DE Rückenverzahnte Blanketts
 FR Fers crantés
 IT Placchette con zigrinatura
 ES Cuchillas corrugadas

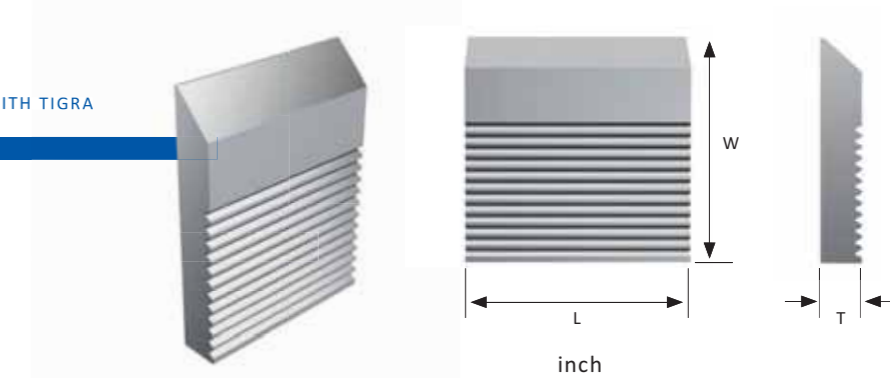


L	W	T	HSS	H.P.S.	Matrix coating technology
mm	mm	mm	6 % (M2)		
40	60	8.0	030326	103493	120310
50	60	8.0	030327	103494	120311
60	60	8.0	030328	103495	120312
70	60	8.0	030329	103496	120313
80	60	8.0	030330	103497	120314
90	60	8.0	030331	103498	120315
100	60	8.0	030332	103499	120316
110	60	8.0	047399	103500	120317
120	60	8.0	030333	103501	120318
130	60	8.0	030334	103502	120319
150	60	8.0	030335	103503	120320
170	60	8.0	030336	103504	120321
180	60	8.0	030337	103505	120322
200	60	8.0	030338	103506	120323
210	60	8.0	030339	103507	120324
230	60	8.0	030340	103508	120325
650	60	8.0	030344	103510	120327
40	70	8.0	030345	103511	120328
50	70	8.0	030346	103512	120329
60	70	8.0	030347	103513	120330
70	70	8.0	030348	103514	120331
80	70	8.0	030349	103515	120332
90	70	8.0	030350	103516	120333
100	70	8.0	030351	103517	120334
110	70	8.0	047400	103518	120335
120	70	8.0	030352	103519	120336
130	70	8.0	030353	103521	120337
150	70	8.0	030354	103522	120338
170	70	8.0	030355	103523	120339
180	70	8.0	030356	103524	120340
200	70	8.0	030357	103525	120341
210	70	8.0	030358	103526	120342
230	70	8.0	030359	103527	120343
650	70	8.0	030362	103529	120345



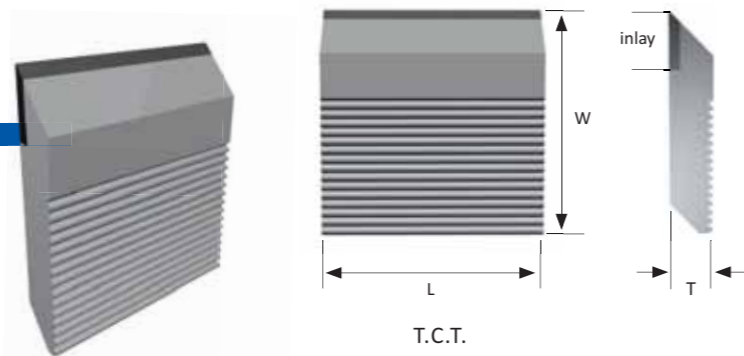
EN Back corrugated blanks
 DE Rückenverzahnte Blanketts
 FR Fers crantés
 IT Placchette con zigrinatura
 ES Cuchillas corrugadas

L mm	W mm	T mm	HSS 6% (M2)
650	30	4.0	104735
650	27	5.0	108483
650	38	5.0	108522
650	45	5.0	108562
650	50	5.0	108604
650	40	6.0	051029
650	45	6.0	122083
650	50	6.0	043807
650	60	6.0	043808



EN Back corrugated blanks
 DE Rückenverzahnte Blanketts
 FR Fers crantés
 IT Placchette con zigrinatura
 ES Cuchillas corrugadas

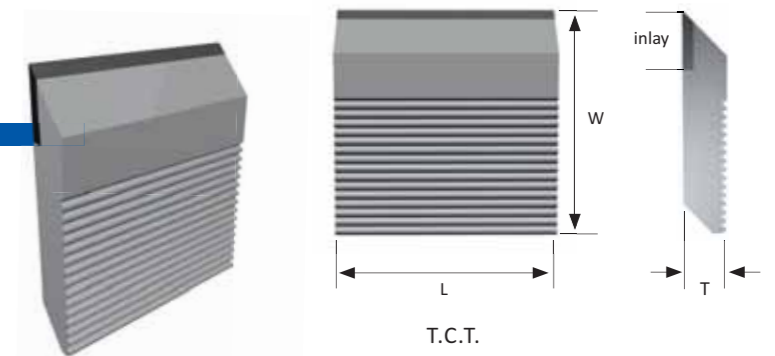
L inch	W inch	T inch	HSS 6% (M2)
25	1 1/4	5/16	101054
25	1 1/2	5/16	101055
25	1 3/4	5/16	101056
25	2	5/16	101057
25	2 1/4	5/16	101058
25	2 1/2	5/16	101059
25	2 3/4	5/16	101060
25	3	5/16	101061
25	1 1/4	1/4	101062
25	1 1/2	1/4	101063
25	1 3/4	1/4	101064
25	2	1/4	101065
25	2 1/4	1/4	101066
25	2 1/2	1/4	101067
25	1 3/4	3/16	101068
25	2	3/16	101069



EN Back corrugated blanks
 DE Rückenverzahnte Blanketts
 FR Fers crantés
 IT Placchette con zigrinatura
 ES Cuchillas corrugadas

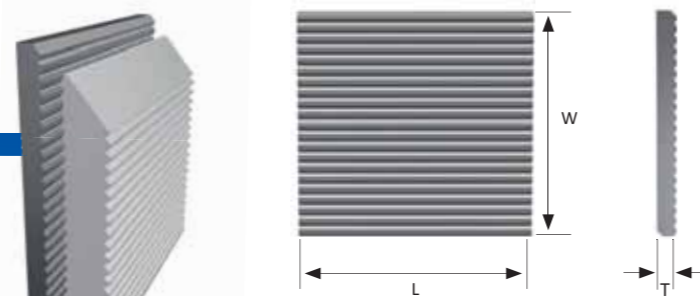
L mm	W mm	T mm	Inlay 14 mm	Inlay 20 mm	Inlay 25 mm	Inlay 30 mm	Inlay 35 mm
650	40	8.0	165719	167153			
650	50	8.0		104570	103363		
650	60	8.0	104335	104336	104337	102546	128589
650	70	8.0				111854	165721

L mm	W mm	T mm	Inlay 20 mm	Inlay 25 mm
40	40	10.0	103249	
60	40	10.0	103250	
80	40	10.0	103251	
130	40	10.0	103253	
150	40	10.0	103254	
180	40	10.0	103255	
200	40	10.0	103256	
310	40	10.0	103259	
650	40	10.0	101746	
40	50	10.0	030254	
60	50	10.0	103261	
80	50	10.0	103262	
100	50	10.0	103263	
130	50	10.0	103264	
150	50	10.0	103265	
200	50	10.0	103267	
230	50	10.0	103268	
650	50	10.0	030264	105661



EN Back corrugated blanks
 DE Rückenverzahnte Blanketts
 FR Fers crantés
 IT Placchette con zigrinatura
 ES Cuchillas corrugadas

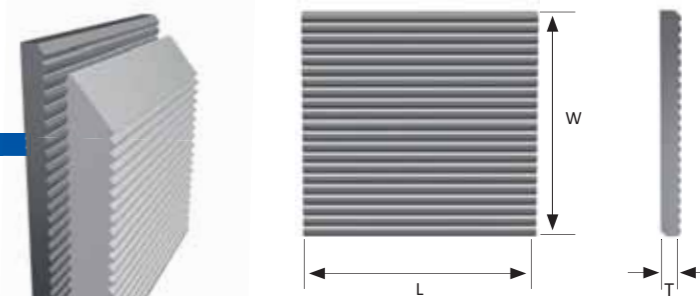
L mm	W mm	T mm	Inlay 25 mm	Inlay 30 mm	Inlay 35 mm
40	60	10.0	103300	114867	114868
60	60	10.0	103301	103797	109128
80	60	10.0	030269	109133	109129
100	60	10.0	030270	109134	109130
120	60	10.0	109479	114865	114866
130	60	10.0	030271	109135	109131
150	60	10.0	103302	114869	114870
180	60	10.0	103303	109136	109132
230	60	10.0	103305	109137	109138
650	60	10.0	102053	133295	133296
650	70	10.0		133297	133298



EN Carbide blank with corrugated backing plate
 DE Hartmetall-Blankett mit rückenverzählter Stützplatte
 FR Plaquette carbure avec porte-plaquette denté
 IT Coltello in HM zigrinato con piastra di supporto zigrinata
 ES Cuchilla de metal duro con placa de soporte dentada por el lomo

EN TIGRA SuperPac
 DE TIGRA SuperPac
 FR TIGRA SuperPac
 IT TIGRA SuperPac
 ES TIGRA SuperPac

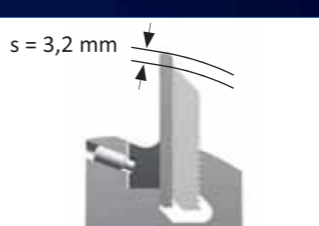



L mm	W mm	T mm	T10MG	T04F-CR	L mm	W mm	T mm	Backing plate Stützplatte
40	38	3.2	043933	024082	40	35	7.1	024090
50	38	3.2	043934	043924	50	35	7.1	043957
60	38	3.2	043935	024115	60	35	7.1	024123
80	38	3.2	043936	024148	80	35	7.1	024156
100	38	3.2	043937	023949	100	35	7.1	023957
120	38	3.2	043938	023982	120	35	7.1	023990
130	38	3.2	043939	024016	130	35	7.1	024024
150	38	3.2	043940	024049	150	35	7.1	024057
170	38	3.2	043962	043961	170	35	7.1	045837
180	38	3.2	113497		180	35	7.1	113484
200	38	3.2	113498	131214	200	35	7.1	113485
210	38	3.2	113499	131216	210	35	7.1	113486
230	38	3.2	113500	131217	230	35	7.1	113487
310	38	3.2	113501	131219	310	35	7.1	112229
330	38	3.2	113502	131220	330	35	7.1	113481
40	50	3.2	043941	024093	40	47	7.1	024101
50	50	3.2	043942	043927	50	47	7.1	043958
60	50	3.2	043943	024126	60	47	7.1	024134
80	50	3.2	043944	024159	80	47	7.1	024167
100	50	3.2	043945	023960	100	47	7.1	023968
120	50	3.2	043946	023993	120	47	7.1	024001
130	50	3.2	043947	024027	130	47	7.1	024035
150	50	3.2	043948	024060	150	47	7.1	024068
170	50	3.2	043966	043965	170	47	7.1	045838
180	50	3.2	113503		180	47	7.1	113488
200	50	3.2	113504	131221	200	47	7.1	113489
210	50	3.2	113505	131222	210	47	7.1	113490
230	50	3.2	113506	131223	230	47	7.1	113491
310	50	3.2	113507	131224	310	47	7.1	112230
330	50	3.2	113508	129927	330	47	7.1	113482



EN Carbide blank with corrugated backing plate
 DE Hartmetall-Blankett mit rückenverzählter Stützplatte
 FR Plaquette carbure avec porte-plaquette denté
 IT Coltello in HM zigrinato con piastra di supporto zigrinata
 ES Cuchilla de metal duro con placa de soporte dentada por el lomo

EN TIGRA SuperPac
 DE TIGRA SuperPac
 FR TIGRA SuperPac
 IT TIGRA SuperPac
 ES TIGRA SuperPac

L mm	W mm	T mm	T10MG	T04F-CR	L mm	W mm	T mm	Backing plate Stützplatte
40	60	3.2	043949	024104	40	57	7.1	024112
50	60	3.2	043950	043931	50	57	7.1	043959
60	60	3.2	043951	024137	60	57	7.1	024145
80	60	3.2	043952	024170	80	57	7.1	024178
100	60	3.2	043953	023971	100	57	7.1	023979
120	60	3.2	043954	024004	120	57	7.1	024012
130	60	3.2	043955	024038	130	57	7.1	024046
150	60	3.2	043956	024071	150	57	7.1	024079
170	60	3.2	043970	043969	170	57	7.1	045839
180	60	3.2	113509		180	57	7.1	113493
200	60	3.2	113510	131240	200	57	7.1	113494
210	60	3.2	113511	131241	210	57	7.1	113495
230	60	3.2	113512	131243	230	57	7.1	113496
310	60	3.2	113513	131244	310	57	7.1	112231
330	60	3.2	113514	129928	330	57	7.1	113483

	EN Security advices DE Sicherheitshinweise FR Conseils de sécurité	IT Consigli di sicurezza ES Consejo de seguridad								
 <p>s = 3,2 mm</p>	<p>EN Cutting Edge Projection Between carbide blank and backing plate s=3,2 mm (critical dimension when regrinding). DE Schneidenüberstand Schneidenüberstand von Hartmetallplatte zu Stützplatte s=3,2 mm (beim Nachschärfen zu beachten). FR Saillie des plaquettes Les plaquettes carbure dépassent le support de 3,2 mm (à prendre en compte lors du réaffûtage). IT Sporgenza del tagliente Sporgenza del tagliente rispetto alla piastra di supporto s= 3,2 mm (prestare attenzione in caso di riaffilatura). ES Exceso de corte El exceso de corte desde la placa de metal duro hacia la placa de soporte es e=3,2 mm (obsérvelo cuando se reafi la).</p>									
	<p>EN Maximum Profile Depth DE Maximale Profiltiefe FR Profondeur de profil maximum IT Profondità massima della sagomatura ES Profundidad máxima de perfil</p> <table border="1"> <thead> <tr> <th>W mm</th> <th>P max mm</th> </tr> </thead> <tbody> <tr><td>38</td><td>-</td></tr> <tr><td>50</td><td>12</td></tr> <tr><td>60</td><td>23</td></tr> </tbody> </table>	W mm	P max mm	38	-	50	12	60	23	
W mm	P max mm									
38	-									
50	12									
60	23									
	<p>EN Warning! Specific positioning of blank and support plate; be aware of the safety regulations! DE Warnung! Sitzgenauer Einbau von Blankett und Stützplatte; Sicherheitsbestimmungen beachten! FR Avertissement! Positionnement précis de plaque et porte-plaquette; observez les règles de sécurité! IT Attenzione! Esatto montaggio in sede del coltello e della piastra di supporto; rispettare le norme di sicurezza! ES Aviso! Específicamente el posicionamiento de la placa en blanco y el apoyo, estar al tanto de las normas de seguridad!</p>									
	<p>EN Warning! Maximum adjustment of blank = 8 mm DE Warnung! Maximale Verstellung des Blanketts = 8 mm FR Avertissement! Ajustement maximum de plaquette = 8 mm IT Attenzione! Regolazione massima della placchetta = 8 mm ES Aviso! El ajuste máximo del espacio en placa = 8 mm</p>									



EN Carbide blank with corrugated backing plate
 DE Hartmetall-Blankett mit rückenverzahnter Stützplatte
 FR Plaquette carbure avec porte-plaquette denté
 IT Coltello in HM zigrinato con piastra di supporto zigrinata
 ES Cuchilla de metal duro con placa de soporte dentada por el lomo

EN MicroSystem
 DE MicroSystem
 FR MicroSystem
 IT MicroSystem
 ES MicroSystem

L mm	W mm	T mm	T10MG	T04F-CR	L mm	W mm	T mm	EN Backing plate DE Stützplatte
40	38	2.5	131966	133530	40	35	7.5	131991
60	38	2.5	131967	133531	60	35	7.5	131992
80	38	2.5	131968	133532	80	35	7.5	131993
100	38	2.5	131969	133533	100	35	7.5	131994
130	38	2.5	131970	133534	130	35	7.5	131995
150	38	2.5	131971	133535	150	35	7.5	131996
180	38	2.5	131972	133536	180	35	7.5	131997
230	38	2.5	131973	133537	230	35	7.5	131998
240	38	2.5	131974	133538	240	35	7.5	131999
40	50	2.5	131975	133539	40	47	7.5	132000
60	50	2.5	131976	133540	60	47	7.5	132001
80	50	2.5	131977	133541	80	47	7.5	132002
100	50	2.5	131978	133542	100	47	7.5	132003
130	50	2.5	131979	133543	130	47	7.5	132004
150	50	2.5	131980	133544	150	47	7.5	132005
180	50	2.5	131981	133545	180	47	7.5	132006
240	50	2.5	131982	133546	240	47	7.5	132007
40	60	2.5	131983	133547	40	57	7.5	132008
60	60	2.5	131984	133548	60	57	7.5	132009
80	60	2.5	131985	133549	80	57	7.5	132010
100	60	2.5	131986	133550	100	57	7.5	132011
130	60	2.5	131987	133551	130	57	7.5	132012
150	60	2.5	131988	133552	150	57	7.5	132013
180	60	2.5	131989	133553	180	57	7.5	132014
240	60	2.5	131990	133554	240	57	7.5	132015