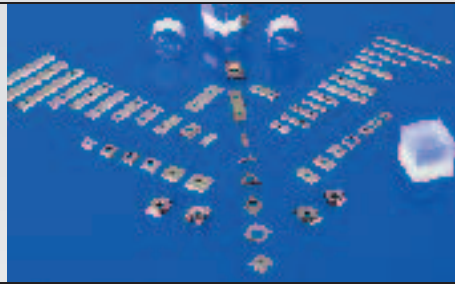


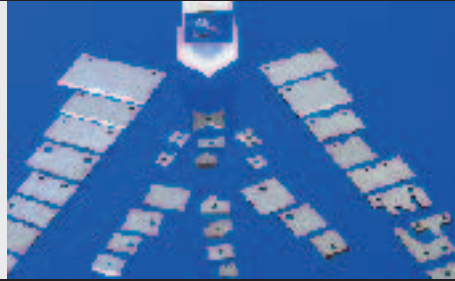


This is TIGRA
 Das ist TIGRA
 C'est la TIGRA
 Questo è TIGRA
 Esto es TIGRA

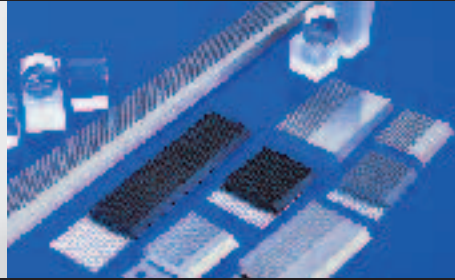
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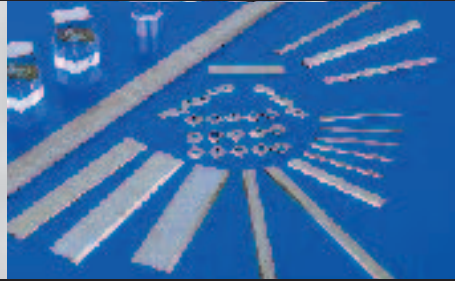
Reversible knives and edge rounding knives
 Wendeschneidplatten und Kantenrunder
 Plaquettes reversibles et couteaux brise-arrête
 Coltelli reversibili e spigolatori
 Cuchillas reversibles y cuchillas para aristas



Blanks for profiling and radius knives
 Blanketts zum Profilieren und Radienplatten
 Plaquettes à profiler et plaquettes profilées
 Placchette da profilare e placchette profilate
 Piezas en bruto para perfilar y perfiladas



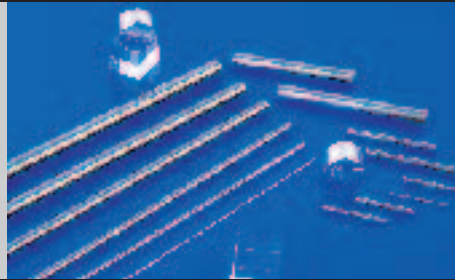
Knives for back corrugated cutterheads
 Messer für rückenverzahnte Messerköpfe
 Couteaux pour outils crantés
 Coltelli per teste con rigatura
 Placas para fresas dentadas



Knives for planing systems
 Messer für Hobelsysteme
 Couteaux pour outils à raboter
 Coltelli per sistemi da pialla
 Cuchillas para fresas helicoidales



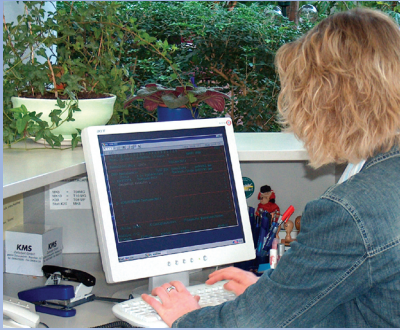
Strips, preforms, router bit tips, drill bits, finger joint tips, saw tips
 Fräserplatten, Formplatten, Oberfräserplatten, Zylinderkopfböhrer, Sägezähne
 Plaquettes à braser, ebauches pour mèches à défoncer, mèches à façonner et fraises, dents de scie
 Placchette per frese, placchette sagomate per punte, punte per cerniere, dentelli per lame
 Placas para equipar fresas, placas para herramientas soldadas, brocas estrella, dientes de sierra



Rods
 Rundstäbe
 Barreaux cylindriques
 Cilindri
 Barras redondas



TIGRA alloy blanks, strips and saw tips
 TIGRA alloy Blanketts, Fräserplatten und Sägezähne
 TIGRA alloy plaquettes à profiler, plaquettes à braser et dents de scie
 TIGRA alloy placchette da profilare, placchette per frese e dentelli per lame
 TIGRA alloy piezas en bruto para perfilar, placas para equipar fresas y dientes de sierra



Carbide for Woodworking

Since its foundation in 1983 TIGRA has specialized in the production of high quality tungsten carbide for woodworking and wear parts. Within some years TIGRA has grown to one of the worldwide leading manufacturers of carbide for woodworking tools. Thanks to its comprehensive know how in carbide production methods and handling as well as modern, highly automated pressing, sintering and working technologies TIGRA offers the most extensive product range for woodworking. High production flexibility and a coordinated quick responding sales and customer service make sure to achieve efficient and customized system solutions. Depending on applications and requirements the customer may select within a variety of special developed carbide grades. If reversible knives, TC blanks for profiling, tips, preforms, strips, saw tips, hinge bits, rods or planer knives in tungsten carbide or HSS, TIGRA certainly has got the best solution for its customers' purposes.



Hartmetall für die Holzbearbeitung

Seit Firmengründung 1983 hat sich TIGRA auf die Herstellung hochwertiger Hartmetalle für die Holzbearbeitung und auf Verschleißteile spezialisiert. In nur wenigen Jahren ist TIGRA mit Hartmetall für Holzbearbeitungswerkzeuge zu einem der führenden Hersteller der Welt herangewachsen. Dank eines umfassenden Know how auf dem Gebiet der Hartmetallherstellung und -bearbeitung sowie modernster, hochautomatisierter Press-, Sinter- und Bearbeitungseinrichtungen bietet TIGRA heute das umfangreichste Produktprogramm für die Holzbearbeitung an. Hohe Flexibilität in der Fertigung sowie ein abgestimmter, schneller Vertriebs- und Kundenservice sorgen für effiziente, kundenindividuelle Systemlösungen. Je nach Anwendung und Anforderung steht dem Kunden eine Vielzahl speziell entwickelter Hartmetallsorten zur Verfügung. Ob Wendschneidplatten, Hartmetall-Blanketts zum Profilieren, Form-, Fräser-, Oberfräserplatten, Sägezähne, Zylinderkopfbohrer, Rundstäbe oder Hobelmesser in Hartmetall oder HSS, TIGRA hat bestimmt die passende Lösung.





Le carbure pour l'usinage du bois

Depuis sa création en 1983, TIGRA s'est spécialisé dans la fabrication de carbures pour les outils d'usinage du bois et pour les pièces d'usure. Un peu de temps il est devenu l'un des leaders mondiaux de cette branche. Des années d'expérience dans la production du carbure ainsi que la modernisation constante des techniques d'affûtage, de pressage et de frittage ont permis à TIGRA de développer une très vaste gamme de produits pour le travail du bois. Les clients ont donc ainsi à leur disposition des solutions efficaces et personnelles répondant rapidement à leurs exigences. Avec une vaste gamme standard comprenant des plaquettes réversibles, des ébauches à profiler, des cylindres, des plaquettes de fraisage, des dents de scie, des couteaux à raboter en carbure ou HSS, des supports de matrice pour les outils brasés ainsi que de nombreux autres produits, TIGRA offre des solutions pour toutes les applications.

Metallo duro per la lavorazione del legno

A partire dalla sua fondazione nel 1983, TIGRA si è dedicata alla produzione di metalli duri di alta qualità per la lavorazione del legno e per il settore usura. In pochi anni, TIGRA è diventata uno dei produttori principali a livello mondiale di coltelli e placchette intercambiabili per utensili per legno. Grazie alla grande conoscenza nel settore della produzione e lavorazione del metallo duro, e alle alte tecnologie ed automazioni nello stampaggio, sinterizzazione e finitura, TIGRA ora sta offrendo la gamma più completa per la lavorazione del legno. Alta flessibilità nella produzione e un servizio clienti rapido e competente risultano valide soluzioni efficienti a risolvere ogni problema individuale. In funzione alle applicazioni, TIGRA offre una vasta gamma di tipi di metallo duro sviluppati per le specifiche produttive. Coltelli a gettare, placchette per profilare, barrette, placchette sagomate per punte e placchette per punte per cerniere saldobrasate e non, denti-lama, cilindri e coltelli da pialla in HM e HSS, TIGRA sicuramente offre la soluzione giusta.

Carburo tungsteno para la industria de la madera

Desde su fundación en el año 1983 TIGRA se ha especializado en la producción de carburo de tungsteno de alta calidad para la industria de la madera y piezas de desgaste. Desde hace algunos años TIGRA ha pasado a ser uno de los líderes mundiales en fabricación de placas de carburo para herramientas de la madera. Gracias al profundo know how en producción de metal duro y los más avanzados sistemas de prensado, sinterizado y mecanizado totalmente automatizados garantizan la cuchilla óptima para todos los campos de aplicación. La alta flexibilidad de la producción y la rápida coordinación con el departamento de ventas nos aseguran una eficaz solución a las exigencias de nuestros clientes. Dependiendo de la aplicación y utilización, el cliente puede seleccionar dentro de una variedad de grados desarrollados especiales de metal duro. TIGRA puede ofrecer la mejor solución para las necesidades de cada cliente sobre cuchillas reversibles, placas en bruto para perfilar, placas preformadas, barras rectangulares, todo el tipo de cuchillas en HSS, dientes de sierra y barras cilíndricas.



TIGRA carbide grades and their applications
TIGRA Hartmetallsorten und ihre Anwendungen
Les nuances de carbures TIGRA et leurs applications
I tipi di metallo duro TIGRA e le loro applicazioni
Calidades de metal duro TIGRA y sus aplicaciones

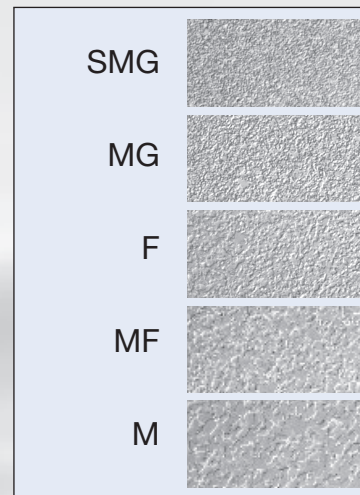
The modern carbide technology classifies tungsten carbide in grain size and binder content (included in the name). In der modernen Hartmetall-Technologie werden die Hartmetalle nach Korngrößen und Bindergehalt klassifiziert (im Namen enthalten).

La technologie moderne classifie les carbures en fonction de la grosseur du grain et de la teneur en liant de sa composition.

La moderna tecnologia dei metalli duri li classifica in base alla grossenza del grano e al percentuale di legante.

La tecnologia moderna de metal duro lo clasifica segùn el tamaño el grano y la proporciòn de ligante.

Shortform Abkürzung Abréviation Abbreviazione Abreviatura	Explanation Erklärung Explication Spiegazione Spiegazione	Grain size Korngröße Grosseur du grain Grossezza del grano Tamaño del grano
NG	N ano G rain	0.2
UMG	U ltra M icro G rain	0.2 - 0.5
SMG	S ub M icro G rain	0.5 - 0.7
MG	M icro G rain	0.7 - 1.0
F	F ine Grain	1.0 - 1.4
MF	M edium F ine Grain	1.4 - 2.5
M	M edium Grain	2.5 - 4.0
C	C oarse Grain	4.0 - 10.0
EC	E xtra C oarse	10



Technical Data - Technische Daten - Caractéristiques techniques - Dati tecnici - Datos técnicos

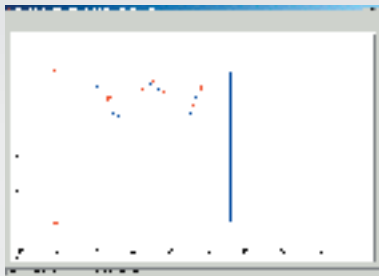
TIGRA grade TIGRA - Sorte Nuance TIGRA Tipo TIGRA Calidad TIGRA	US-Code	ISO-Code	Binder % Binder % Liant % % di legante Composicion %	Hardness Härte Dureté Durezza Dureza (HV 10)	Hardness Härte Dureté Durezza Dureza (HRA) ± 0,2	Breakage resistance Biegebruchfestigkeit Resistance à la flexion Resistenza flessionale Resistencia a la flexión (N/mm ²) psi
T02SMG	C4 +++	K01	2.5	2450	96.5	2000 / 284.400
T03SMG	C4 ++	K01	3.5	2100	94.6	2400 / 341.280
T06CR *	C4 +	K01	3.5	1950	93.8	2300 / 327.060
T08CR *	C4 +	K05-K30	4.0	1900	93.6	2300 / 327.060
T04F	C4	K05	4.0	1750	92.8	2350 / 334.170
T04MG	C4 +	K01	4.0	1940	93.8	2600 / 369.720
T06M	C3 -	K20	6.0	1350	89.8	2400 / 341.280
T06MF	C3	K20	6.5	1600	92.0	2500 / 355.500
T06MG	C3 ++	K01-K20	6.0	1800	93.0	2700 / 383.940
T08MF	C2	K30	8.5	1470	90.8	2700 / 383.940
T08SMG	C2 +++	K05-K30	9.0	1750	92.8	3400 / 483.480
T10MF	C1	K40	10.0	1400	90.3	2900 / 412.380
T10MG	C1 ++	K20-K40	10.0	1650	92.3	3600 / 511.920
T12SMG	C1 ++		12.0	1750	92.8	4000 / 568.800
TL15 *			13.5	1450	90.7	3800 / 540.360
TL20 *			20.0	1400	90.3	3800 / 540.360

* Special binder - Spezialbinder - Liant special - Legante speciale - Composicion especial

TIGRA carbide grades and their applications
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I tipi di metallo duro TIGRA e le loro applicazioni
Calidades de metal duro TIGRA y sus aplicaciones

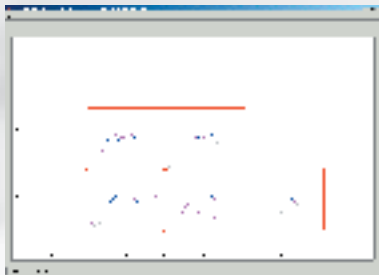
Grade Sorte Nuance Tipo Calidad	HDF, MDF HDF, MDF HDF, MDF HDF, MDF HDF, MDF	Chipboard Spanplatte Panneux de particule Truciolare Panel de aglomerado	Hardwood Hartholz Bois dur Legno duro Madera dura	Softwood Weichholz Bois tendre Legno tenero Madera blanda	Glued-up Wood Verleimholz Bois collé Legno incollato Madera encolada
T02SMG	+++	+++	-	--	--
T03SMG	++	+++	+	--	-
T06CR	++	++	++	0	+
T08CR	++	++	++	+	+
T04F	+	++	+	+	+
T04MG	++	++	+	0	+
T06M	--	-	0	0	0
T06MF	0	0	+	+	+
T06MG	+	++	++	+	++
T08MF	--	-	+	+	0
T08SMG	0	+	++	+	++
T10MF	--	--	0	+	0
T10MG	0	0	++	++	+
T12SMG	-	0	++	+++	+
TL15	--	--	++	+++	+
TL20	--	--	+++	+++	+
	+++ Excellent ++ Very Good + Good 0 Acceptable - Not too good -- Poor	Hervorragend Sehr gut Gut Akzeptabel Weniger gut Schlecht geeignet	Parfaitement Très bien Bien Acceptable Moins bien Mal adapté	Perfettamente Molto idoneo Idoneo Accettabile Meno idoneo Poco idoneo	Perfectamente Muy Algo Aceptable Mal Nada apropiado

TIGRA - Professionals in profiling
TIGRA - Profis im Profilieren
TIGRA - Les professionnels du profilage
TIGRA - Professionisti in profilatura
TIGRA - Profesionales en el campo de perfilar



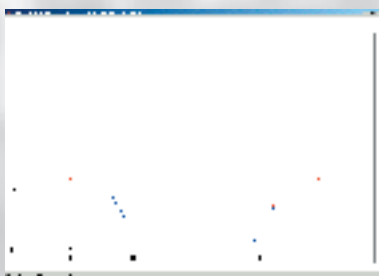
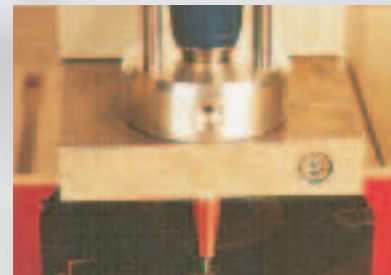
Easy production of profile templates
 Einfache Schablonenerstellung
 Fabrication de gabarits simples
 Produzione semplice di sagome
 Creación sencilla de plantillas

TIGRA Pro-Template



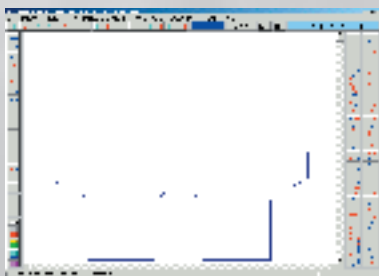
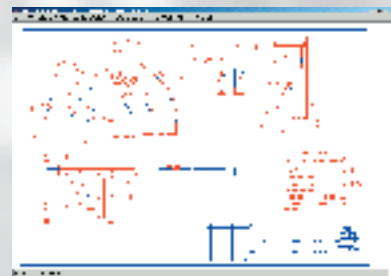
Engraving of cutting inserts, saws and tools
 Gravieren von Schneideinsätzen, Sägen und Werkzeugen
 Gravage de plaquettes, de scies et d'outils
 Incisione su placchette, lame e utensili
 Grabado de insertos de corte, sierras y herramientas

TIGRA Script



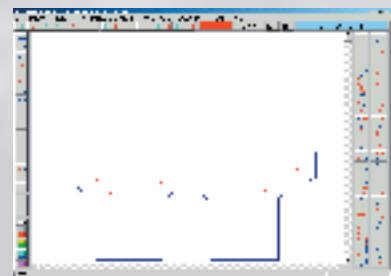
In 5 minutes from profile to workshop drawing
 In 5 Minuten vom Profil zur Werkstattzeichnung
 En 5 minutes du profilé jusqu'au dessin d'atelier
 Dal profilo al disegno di produzione in 5 minuti
 De perfil a dibujo de taller en cinco minutos

TIGRA CAD-Tool



Cost saving CAD program specialized for tool manufacturers
 Kostengünstiges CAD-Programm speziell für Werkzeughersteller
 Logiciel de CAO d'un excellent rapport coût/efficacité, spécialement conçu pour les fabricants d'outils
 Conveniente programma CAD specifico per i produttori di utensili
 Programa CAD a un precio económico especializado para fabricantes de herramientas

TIGRA CAD-NC



We will send you further information on request!
 Gerne senden wir Ihnen weitere Informationen zu!
 Nous vous envoyons volontiers de plus amples informations!
 Ulteriori informazioni sono disponibili su richiesta!
 Estaremos encantados de enviarle más información.



TIGRA 3000 - The intelligent profile grinding machine for high demands

Produce far more and more flexible in the same amount of time: this is possible with the new TIGRA 3000. Experience has been combined with progress to create a pioneering machine generation for the efficient profiling of blanks. Make use of this new generation of grinding machines for the benefit of your customers! Also ask for our low-priced alternative TIGRA 2000!

TIGRA 3000 - Die intelligente Profilschleifmaschine für hohe Ansprüche

Wesentlich mehr und flexibler produzieren in der gleichen Zeit: die neue TIGRA 3000 macht es möglich. Erfahrung paart sich mit Fortschritt zu einer wegweisenden Maschinengeneration zum effizienten Profilieren von Blanketts. Nutzen Sie diese neue Schleifmaschinengeneration. Zum Vorteil Ihrer Kunden! Fragen Sie auch nach unserer preiswerten Alternative TIGRA 2000!

TIGRA 3000 - La profileuse intelligente pour des exigences de haut niveau

La nouvelle TIGRA 3000 permet de produire des volumes nettement supérieurs et plus flexible à période identique. L'expérience se combine avec le progrès pour produire une génération de machines prometteuses destinées à un profilage efficace des ébauches. Faites bénéficier vos clients des avantages de cette nouvelle génération de profileuses! Demandez des informations sur la TIGRA 2000, l'alternative à un prix extrêmement modéré!

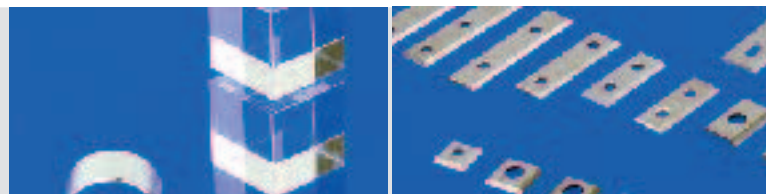
TIGRA 3000 - La profilatrice intelligente per elevate esigenze di profilatura

Produrre molto di più nello stesso tempo con flessibilità: con la nuova TIGRA 3000 è possibile. L'esperienza si unisce al progresso per un'innovativa generazione di macchine per la profilatura efficiente dei grezzi. Utilizzate questa nuova generazione di profilatrici per offrire vantaggi ai Vostrì clienti! Chiedete anche informazioni sulla nostra alternativa economica, la TIGRA 2000!

TIGRA 3000 - La máquina perfiladora inteligente para las más altas prestaciones

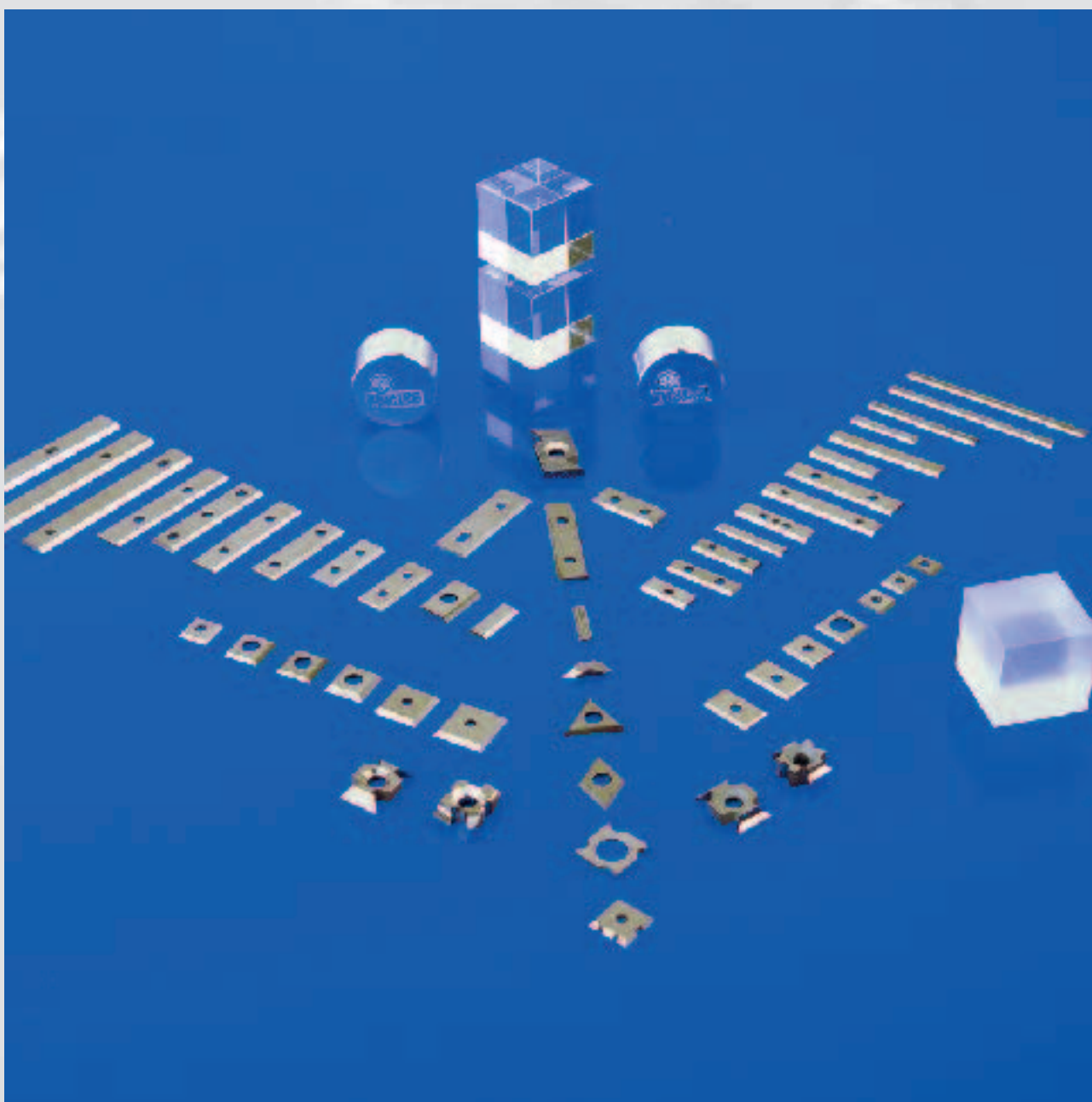
Aumento sustancial de la producción en el mismo periodo de tiempo con mas flexibilidad: la nueva TIGRA 3000 lo hace posible. La experiencia y la vanguardia se unen en una nueva generación para el perfilado eficaz de piezas en bruto. ¡Saque partido de esta nueva generación de máquinas perfiladoras, todo será beneficios para sus clientes! En alternativa mas economica tenemos la TIGRA 2000!



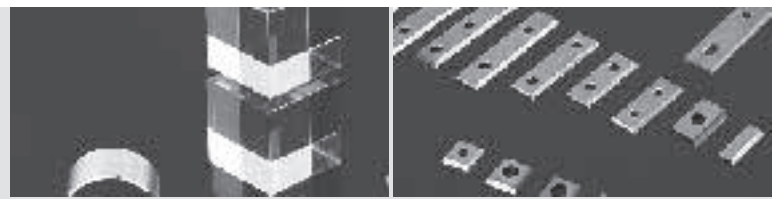


Reversible knives and edge rounding knives
Wendeschneidplatten und Kantenrunder
Plaquettes reversibles et couteaux brise-arrête
Coltelli reversibili e spigolatori
Cuchillas reversibles y cuchillas para aristas

2





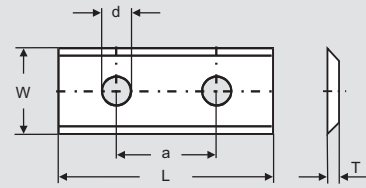


Reversible knives and edge rounding knives
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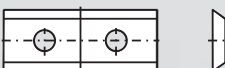
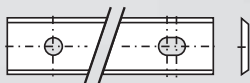
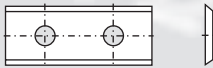
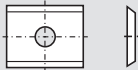
	Standard reversible knives 35° Standard Wendeschneidplatten 35° Plaquettes reversibles standard 35° Coltelli reversibili standard 35° Cuchillas reversibles standard 35°	12
	Reversible knives Wendeschneidplatten Plaquettes reversibles Coltelli reversibili Cuchillas reversibles	13
	Square knives Quadratische Wendeschneidplatten Plaquettes reversibles à quatre coupes Coltelli reversibili quadrati Cuchillas reversibles cuadradas	14
	Spurs, grooving knives Vorschneider, Nuter Arasseur, couteaux pour rainures Rasanti, coltelli per incastri Incisores, cuchillas para ranura	15
	Standard reversible knives - 4 cutting edges Standard Wendeschneidplatten - 4 Schneidkanten Plaquettes reversibles standard - 4 tranchants Coltelli reversibili standard - 4 taglienti Cuchillas reversibles standard - 4 filos de corté	16
	Reversible knives 45° Wendeschneidplatten 45° Plaquettes reversibles 45° Coltelli reversibili 45° Cuchillas reversibles 45°	17
	Mini reversible knives Mini - Wendeschneidplatten Mini plaquettes reversibles Mini coltelli reversibili Mini cuchillas reversibles	18
	Reversible knives for Systems Leitz, Oertli, KWO/Versofix, Kanefusa Wendeschneidpl. für Systeme Leitz, Oertli, KWO/Versofix, Kanefusa Plaquettes rev. pour Systèmes Leitz, Oertli, KWO/Versofix, Kanefusa Coltelli reversibili per sistemi Leitz, Oertli, KWO/Versofix, Kanefusa Cuchillas rev. para sistemas Leitz, Oertli, KWO/Versofix, Kanefusa	19 - 20
	Reversible knives with chip breakers and for portable planers Wendeplatten mit Spanbrechernuten und für Handhobel Plaquettes avec brise copeaux et pour rabots electro portatifs Coltelli con incastro rompitruciolo e pialatrici portatili Cuchillas con rompevirutas y para acepilladoras electricas	21
	Edge rounding knives Kantenrunder Couteaux brise-arrête Spigolatori Cuchillas para aristas	22

Standard reversible knives
 Standard Wendeschneidplatten
 Plaquettes reversibles standard
 Coltelli reversibili standard
 Cuchillas reversibles standard

35°

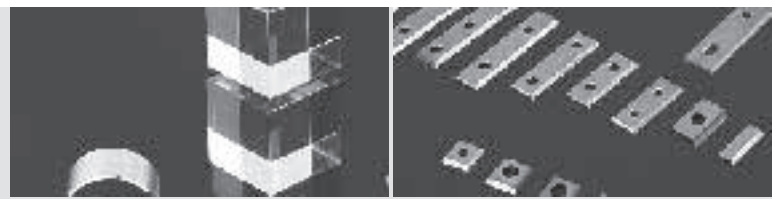


L	W	T	a	T04F	T02SMG	T03SMG	T10MG	TL15
mm	mm	mm	mm					
7.5	12.0	1.5		012001		013811	013963	013734
8.6	12.0	1.5		013182				
9.0	12.0	1.5		012043				
9.6	12.0	1.5		012015		013850	014010	030833
10.0	12.0	1.5		013165				
10.5	12.0	1.5		013167				
11.0	12.0	1.5		013168				
11.6	12.0	1.5		013183				
13.0	12.0	1.5		013170				
13.6	12.0	1.5		013185				
14.6	12.0	1.5		013186				
15.0	12.0	1.5		012003		013819	013972	013741
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	013977	013745
25.0	12.0	1.5		012025		013853	014013	013766
25.0	12.0	1.5	14.0	012011		013843	014001	013759
30.0	12.0	1.5	14.0	012005	037750	013828	013982	013749
35.0	12.0	1.5	26.0	013208				
40.0	12.0	1.5	26.0	012014	052278	013847	014006	013763
50.0	12.0	1.5	26.0	012006	037901	013834	013987	013753
60.0	12.0	1.5	26.0	012007	054882	013839	013994	013754

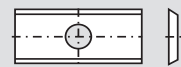
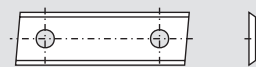
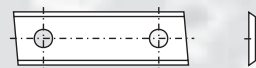
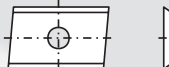
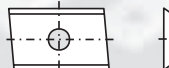
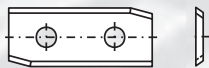
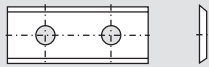
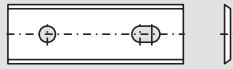
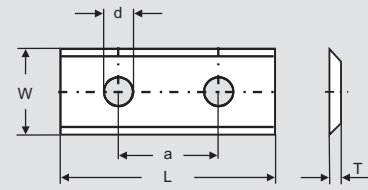


L	W	T	a	T08MF	T02SMG	T03SMG	T10MG	TL15
mm	mm	mm	mm					
80.0	13.0	2.2	60.0	012008		013841	013997	013755
100.0	13.0	2.2	60.0	012009		030831	013998	013756
120.0	13.0	2.2	60.0	012010		030832	013999	013757

L	W	T		T04F		T03SMG		
mm	mm	mm						
20.0	12.0	2.5		100686		101037		
30.0	12.0	2.5		054259		101038		
50.0	12.0	2.5		100687		101039		



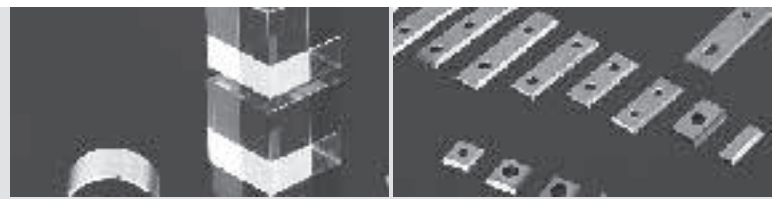
Reversible knives
Wendeschneidplatten
Plaquettes reversibles
Coltelli reversibili
Cuchillas reversibles



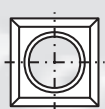
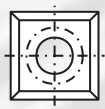
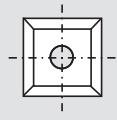
L	W	T	a	T04F	T03SMG	T10MG
mm	mm	mm	mm			
20.0	14.3	2.5		013730	033492	033491
44.5	15.0	1.5	25.0	013447		
30.0	12.0	1.5	16.0	013449	033490	033477
24.0	12.0	1.5		013241		
30.0	12.0	1.5	14.0	013430	013924	033466
50.0	12.0	1.5	26.0	013432	033470	033468
30.0	12.0	1.5	14.0	013431	013925	033467
50.0	12.0	1.5	26.0	013433	033471	033469
20.0	12.0	1.5		013436	033480	033479
20.0	12.0	1.5		013441	033481	033482
30.0	12.0	1.5	14.0	013437	013926	033489
40.0	12.0	1.5	26.0	013440		
50.0	12.0	1.5	26.0	013438	013927	014038
30.0	12.0	1.5	1.40	013442	013928	033484
40.0	12.0	1.5	26.0	013445		
50.0	12.0	1.5	26.0	013443	013929	014039

L	W	T	a	T04F	T03SMG	T10MG	TL15
mm	mm	mm	mm				
20.0	9.0	1.5		013195			
24.0	9.0	1.5	14.0	013197			
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			

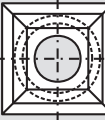
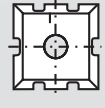
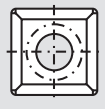
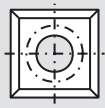
Also see chapter 5 „Knives for Planing Systems“
 Sehen Sie auch unter Kapitel 5 „Messer für Hobelsysteme“
 Voir chapitre 5 „Couteaux pour outils à raboter“
 Vedi anche capitolo 5 „Coltelli per sistemi da pialla“
 En cap. 5 „Cuchillas para fresas helicoidales“



Square knives
Quadratische Wendeschneidplatten
Plaquettes reversibles à quatre coupes
Coltelli reversibili quadrati
Cuchillas reversibles cuadradas

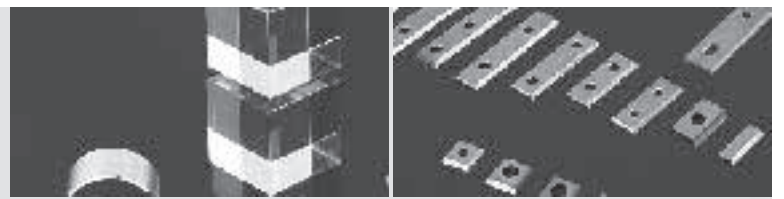


For Holz-Her system*

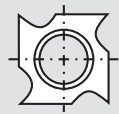


L	W	T		d	T08MF	T04F	T02SMG	T03SMG	T10MG	TL15
mm	mm	mm		mm						
9.0	9.0	1.5								
10.5	10.5	1.5	35°	4.0		013259		013863	014027	013769
12.0	12.0	1.5	35°	4.0		012002	048357	013815	013968	013737
13.0	13.0	2.5	35°	4.0	013328					
17.0	17.0	2.0	35°	3.0	016565	016564				
17.0	17.0	2.0	35°	4.0	013266	013265		013864	030830	013770
19.0	19.0	2.0	35°	4.0		013264		030838	030827	030826
10.5	10.5	1.5	35°							040343
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	22°		013297					
14.0	14.0	1.7	30°		013307					
14.0	14.0	2.0	30°		013273	013260	054962	013865	014028	013771
14.0	14.0	1.2	30°		013303					
14.3	14.3	2.5	35°						013329	
14.6	14.6	2.5	30°						013314	
15.0	15.0	2.5	30°						013315	
14.0	14.0	2.0	30°		013276					
15.0	15.0	2.5	30°	R=50					043895	
15.0	15.0	2.5	30°	R=150					013320	
15.0	15.0	2.0			013322				014029	
21.0	21.0	5.5	40°						022695	

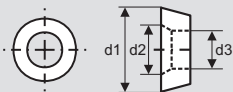
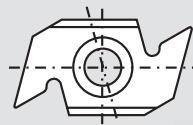
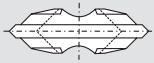
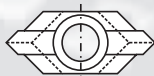
Also see chapter 5 „Knives for Planing Systems“
 Sehen Sie auch unter Kapitel 5 „Messer für Hobelsysteme“
 Voir chapitre 5 „Couteaux pour outils à raboter“
 Vedi anche capitolo 5 „Coltelli per sistemi da pialla“
 En cap. 5 „Cuchillas para fresas helicoidales“



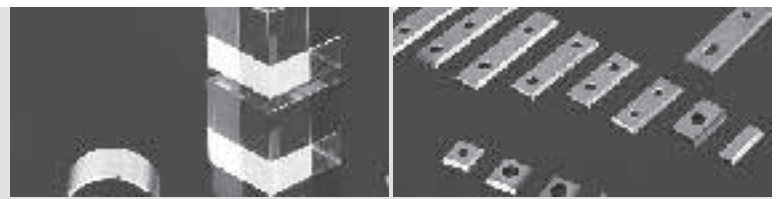
Spurs, grooving knives
 Vorschneider, Nuter
 Arasseur, couteaux pour rainures
 Rasanti, coltelli per incastri
 Incisores, cuchillas para ranura



L	W	T		d	T08MF	T04F	T06MF	T10MG
mm	mm	mm		mm				
14.0	14.0	2.00			013237			
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				2.5	013252			
18.9	7.9	4.0			013253			
18.0	5.7	3.5				013255		
34.0	16.0	4.0					013278	
34.0	16.0	5.0					013279	
34.0	16.0	6.0					013280	
34.0	16.0	7.0					013281	

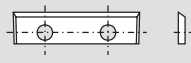
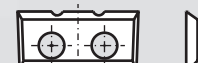
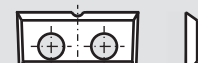
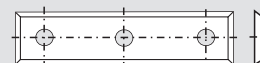
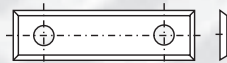
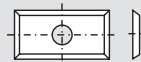
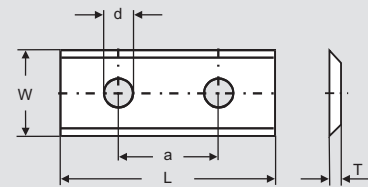


d1	d2	d3	T					T03SMG
mm	mm	mm	mm					
11.0	7.0	5.1	4.0					013373



Standard reversible knives
 Standard Wendeschneidplatten
 Plaquettes reversibles standard
 Coltelli reversibili standard
 Cuchillas reversibles standard

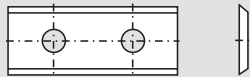
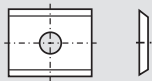
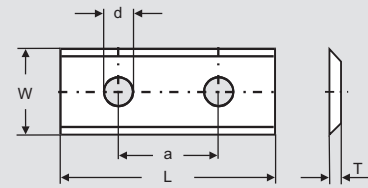
4 cutting edges
 4 Schneidkanten
 4 tranchants
 4 taglienti
 4 filos de corte



L mm	W mm	T mm	a mm	T04F	T03SMG	T10MG	TL15
19.5	7.0	1.5		013492	030874	030886	030904
19.5	7.5	1.5		013493	030875	030887	030905
19.5	8.0	1.5		013494	013945	030888	030906
19.5	9.0	1.5		013495	013946	030889	030907
19.5	10.0	1.5		013496	030876	030890	030908
19.5	11.0	1.5		013497	030877	030891	030909
19.5	12.0	1.5		013498	013947	030892	013774
29.5	7.0	1.5	14.0	013501	030878	030893	030910
29.5	7.5	1.5	14.0	013502	013948	030894	030911
29.5	8.0	1.5	14.0	013503	013949	030895	030912
29.5	9.0	1.5	14.0	013504	013950	030896	030913
29.5	10.0	1.5	14.0	013505	030879	030897	030914
29.5	11.0	1.5	14.0	013506	030880	030898	030915
29.5	12.0	1.5	14.0	013507	013952	014088	013775
39.5	9.0	1.5	26.0	013511	045134		
39.5	12.0	1.5	26.0	013512	013954	014089	030916
49.5	8.0	1.5	26.0	013516	013955	030899	030917
49.5	9.0	1.5	26.0	013517	013956	030900	030918
49.5	10.0	1.5	26.0	013518	030881	030901	030919
49.5	11.0	1.5	26.0	013519	030882	030902	030920
49.5	12.0	1.5	26.0	013520	013957	014090	013776
59.5	12.0	1.5	26.0	013523	013958	030903	030921
50.0	9.0	1.7	37.0				
50.0	10.0	1.7	37.0	016966	030883	030884	030885
50.0	12.0	1.7	37.0	013327	013866	014030	013772
16.0	7.0	1.5	7.0	048995	052579		
16.0	7.0	1.5	7.0	048996	052580		
28.0	7.0	1.5	14.0	016823	016822		
16.0	7.0	1.5	7.0	016934	016933		

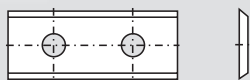
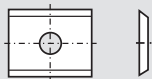
Reversible knives
Wendeschneidplatten
Plaquettes reversibles
Coltelli reversibili
Cuchillas reversibles

45°

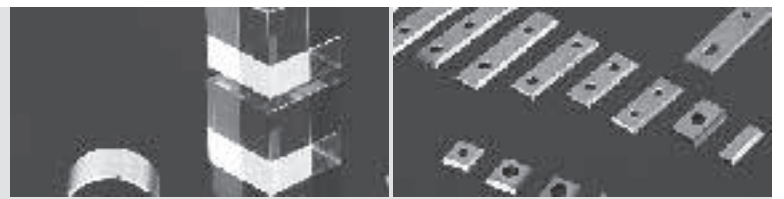


L	W	T	a	T08MF	T10MG	TL15
mm	mm	mm	mm			
7.5	12.0	1.5			014091	013777
9.6	12.0	1.5			014115	030851
15.0	12.0	1.5			014098	013780
20.0	12.0	1.5			014100	013781
25.0	12.0	1.5			014123	013788
25.0	12.0	1.5	14.0		014110	013786
30.0	12.0	1.5	14.0		014102	013783
40.0	12.0	1.5	26.0		014113	013787
50.0	12.0	1.5	26.0		014105	013784
60.0	12.0	1.5	26.0		014107	013785
12.0	12.0	1.5			014096	013778
80.0	13.0	2.2	60.0	013532	014105	

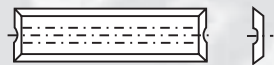
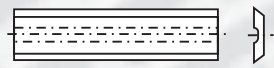
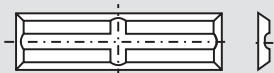
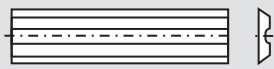
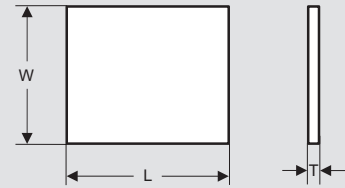
>>MICROFINISH<<



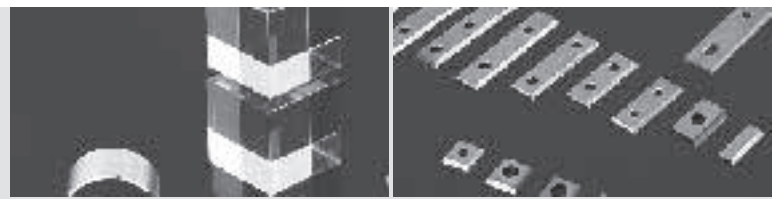
L	W	T	a		T10MG	TL15
mm	mm	mm	mm			
7.5	12.0	1.5			014093	030861
9.6	12.0	1.5			014117	030864
15.0	12.0	1.5			014099	030862
20.0	12.0	1.5			014101	013782
25.0	12.0	1.5			014124	030865
25.0	12.0	1.5	14.0		014111	030863
30.0	12.0	1.5	14.0		014103	030866
40.0	12.0	1.5	26.0		014114	030870
50.0	12.0	1.5	26.0		014106	030868
60.0	12.0	1.5	26.0		014108	030869
12.0	12.0	1.5			014097	013779



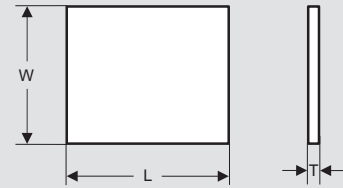
Mini reversible knives
Mini Wendeschneidplatten
Mini plaquettes reversibles
Mini coltelli reversibili
Mini cuchillas reversibles



L	W	T	T04F	T03SMG	Style
mm	mm	mm			
12.0	5.5	1.1	013355	013882	Back groove
20.0	5.5	1.1	013357	013884	Rückennut
30.0	5.5	1.1	013363	013890	Rainure sur petite face
40.0	5.5	1.1	013359	013886	Scanalatura posteriore
50.0	5.5	1.1	013361	013888	Ranura de lomo
20.0	4.1	1.1	013403		Back and crossgrove
20.0	5.5	1.1	013394	013911	Rücken- und Quernut
25.0	5.5	1.1	013402	013920	Rainure transversal
30.0	5.5	1.1	013397	013914	Scanalatura di sicurezza
40.0	5.5	1.1	013399	013916	Ranura transversal
50.0	5.5	1.1	013401	013918	
12.0	5.5	1.1	013334	013870	Face groove
20.0	5.5	1.1	013336	013872	Brustnut
30.0	5.5	1.1	013345	013880	Rainure sur grande face
40.0	5.5	1.1	013339	013874	Scanalatura frontale
50.0	5.5	1.1	013342	013877	Ranura frontal
20.0	5.5	1.1	013378	030871	4 Cutting edges
25.0	5.5	1.1	013376	030872	4 Schneidkanten
30.0	5.5	1.1	013379	030847	4 Tranchants
35.0	5.5	1.1	013377	013893	4 Taglienti
40.0	5.5	1.1	013380	013898	4 Filos de corte
44.5	5.5	1.1	013375	030873	
50.0	5.5	1.1	013381	013900	



Reversible knives for systems Leitz and Oertli
Wendeschneidplatten für die Systeme Leitz und Oertli
Plaquettes reversibles pour les systèmes Leitz et Oertli
Coltelli reversibili per sistemi Leitz e Oertli
Cuchillas reversibles para sistemas Leitz y Oertli

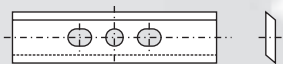
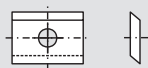


For Leitz system*



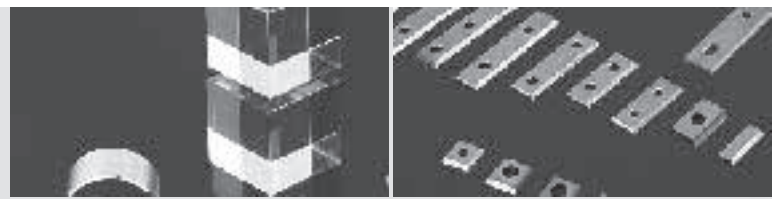
L mm	W mm	T mm	T04F	T03SMG	T10MG
7.7	8.0	1.5	013457	013930	014041
9.7	8.0	1.5	013470	013942	014065
11.7	8.0	1.5	013458	013931	014043
14.7	8.0	1.5	013459	013932	014045
19.7	8.0	1.5	013460	013933	014047
24.7	8.0	1.5	013472	013943	014068
30.0	8.0	1.5	013461	013934	014049
35.0	8.0	1.5	013462	013935	014051
40.0	8.0	1.5	013463	013936	014053
45.0	8.0	1.5	013488	049488	014081
50.0	8.0	1.5	013464	013937	014055
60.0	8.0	1.5	013466	013938	014057
70.0	8.0	1.5	013478	030927	014074
80.0	8.0	1.5	013467	013939	014059
100.0	8.0	1.5	013468	013940	014061
120.0	8.0	1.5	013469	049489	014063

For Oertli system*

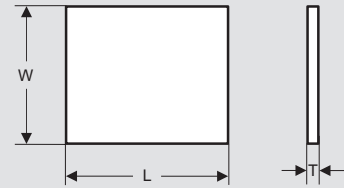


L mm	W mm	T mm	T04F	T03SMG	T10MG
8.8	8.0	1.5	030931		017193
9.0	8.0	1.5	030932		017194
10.0	8.0	1.5	030933		017195
11.0	8.0	1.5	030934		017196
12.0	8.0	1.5	030935		017197
15.0	8.0	1.5	030936		017198
20.0	8.0	1.5	030937		017200
25.0	8.0	1.5	030938		017201
28.0	8.0	1.5	030939		017202
32.0	8.0	1.5	030940		017203
40.0	8.0	1.5	030941		017204
50.0	8.0	1.5	030942		017206
60.0	8.0	1.5	030943		017207
80.0	8.0	1.5	030944		017209
100.0	8.0	1.5	030945		017210
12.0	12.0	1.5	034294		034295

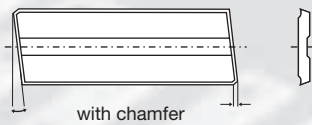
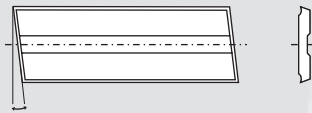
* For use in Leitz/Oertli-cutterheads only
 * Nur zur Verwendung in Messerköpfen der Firma Leitz bzw. Oertli
 * Utilisation limitée aux têtes à lames de l'entreprises Leitz et Oertli
 * Da usare solo su teste portacoltelli della Leitz - Oertli
 * Sólo para empleo con portacuchillas de la firma Leitz/Oertli



Reversible knives for systems KWO/Versofix and Kanefusa
Wendeschneidplatten für die Systeme KWO/Versofix und Kanefusa
Plaquettes reversibles pour les systèmes KWO/Versofix et Kanefusa
Coltelli reversibili per sistemi KWO/Versofix e Kanefusa
Cuchillas reversibles para sistemas KWO/Versofix y Kanefusa

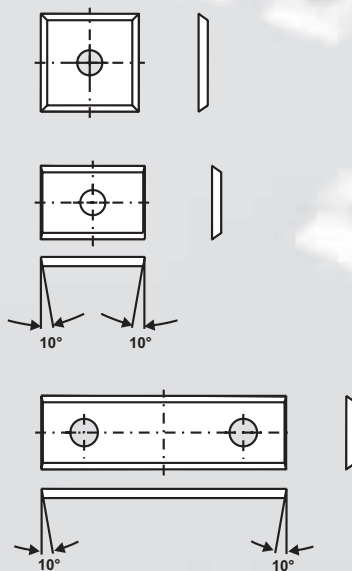


For KWO/Versofix system*



L mm	W mm	T mm	T03SMG TiN-coated	T10MG TiN-coated	T03SMG uncoated	T10MG uncoated
20.0	5.5	1.1	101070	101071	101072	101073
30.0	6.5	1.1	101074	101075	101076	101077
50.0	6.5	1.1	101078	101079	101080	101081
20.0	10.0	1.5	101082	101083	101084	101085
30.0	10.0	1.5	101086	101087	101088	101089
50.0	10.0	1.5	101090	101091	101092	101093
50.0	10.0	1.5	101094	101095	101096	101097

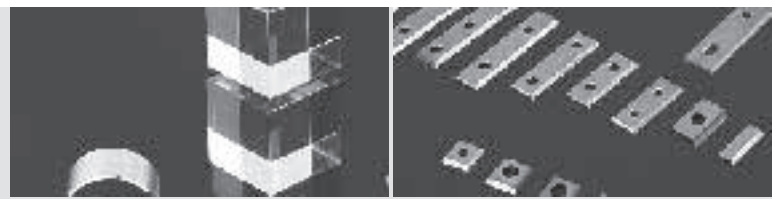
For Kanefusa system*



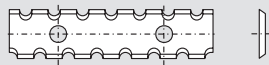
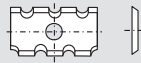
L mm	W mm	T mm	T04F	T08SMG
16.0	16.0	1.5	048874	038912
17.0	12.0	1.5	045625	039592
20.0	12.0	1.5	038014	039390
30.0	12.0	1.5	038259	043204
40.0	12.0	1.5	044735	041609
50.0	12.0	1.5	045966	

* For use in KWO/Versofix/Kanefusa-cutterheads only
 * Nur zur Verwendung in Messerköpfen der Firma KWO/Versofix bzw. Kanefusa
 * Utilisation limitée aux têtes à lames de l'entreprises KWO/Versofix et Kanefusa
 * Da usare solo su teste portacoltelli della KWO/Versofix - Kanefusa
 * Sólo para empleo con portacuchillas de la firma KWO/Versofix/Kanefusa



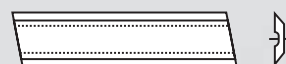
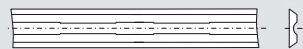


Reversible knives with chip breakers
Wendeplatten mit Spanbrechernuten
Plaquettes reversibles avec brise copeaux
Coltellini con incastro rompitruciolo
Cuchillas reversibles con rompevirutas

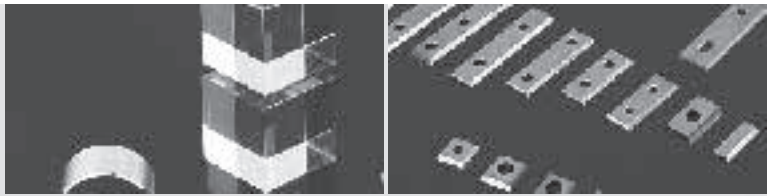


L mm	W mm	T mm	a mm	T04F	
20.0	12.0	1.5		030928	
30.0	12.0	1.5	14.0	013117	
50.0	12.0	1.5	26.0	013127	

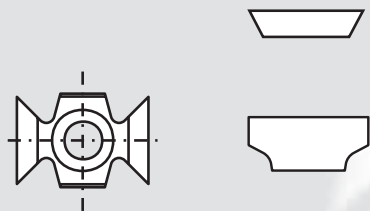
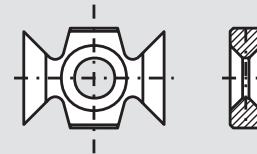
Reversible knives for portable planers
Wendeplatten für Handhobel
Plaquettes por robots electro portatifs
Coltelli piallatrici per portatili
Cuchillas para acepilladoras electricas



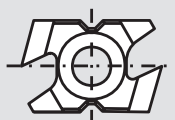
L mm	W mm	T mm	T08MF	
56.0	5.5	1.1	013041	Adler
60.0	5.5	1.1	013053	Wegoma
75.5	5.5	1.1	013001	AEG, Bosch, Festo, Haffner, Kress, Mafell, Metabo, Scheer, Skil, Holz-Her
75.7	5.5	1.2	013018	B&D
80.5	5.9	1.2	013043	ELU
80.5	5.5	1.1	013010	ELU
82.0	5.5	1.1	013020	AEG, B&D, Bosch, ALU, Fein, Felisatti, Haffner, Hitachi, Holz-Her, Mafell, Makita, Metabo, Peugeot, Ryobi, Skil, B&D
82.7	5.5	1.1	013032	B&D
92.0	5.5	1.1	013057	AEG, Hitachi, Ryobi
102.0	5.5	1.1	013061	AEG
82.0	5.5	1.1	013082	Casals
82.0	5.1	1.2	013034	Scanalatura frontale, Ranura frontal



Edge rounding knives
Kantenrunder
Couteaux brise-arrête
Spigolatori
Cuchillas para aristas



For Leitz-system
Mechanical*



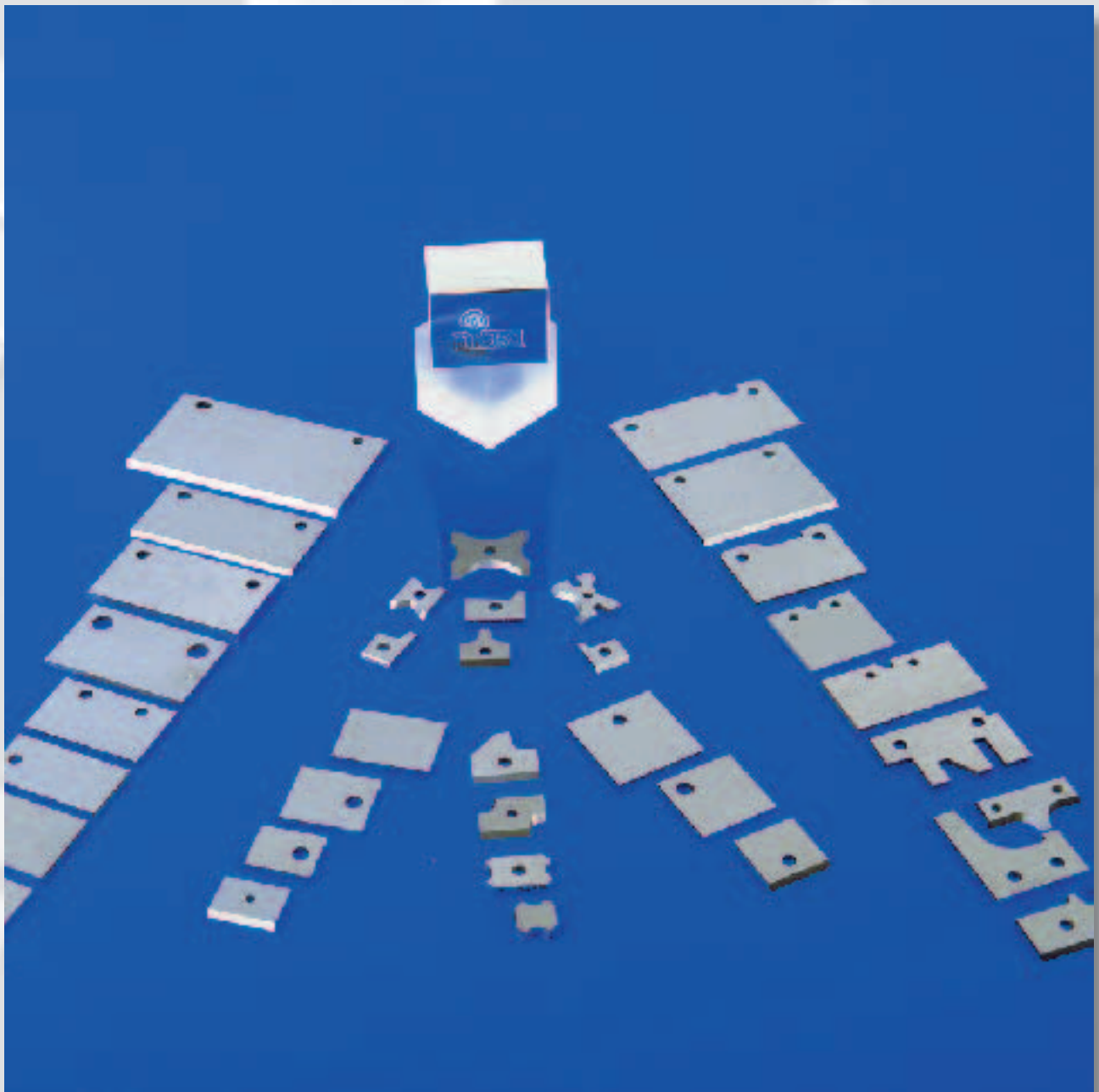
For Leitz-system
"BG-Test"

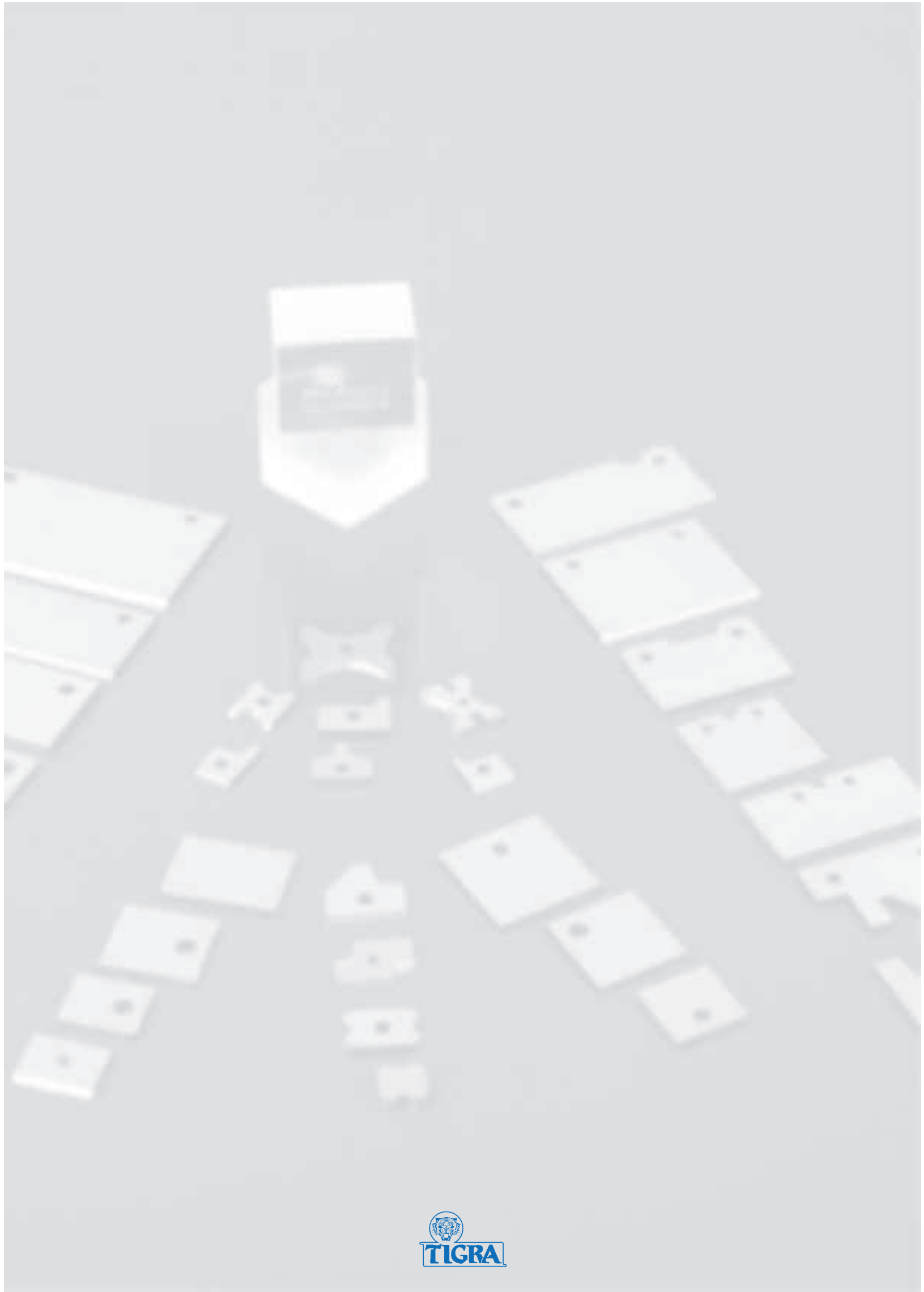
L	W	T	Type	T10MG
mm	mm	mm		
16.0	22.0	5.0	TKM 45°	032292
16.0	22.0	5.0	TKM R 1.5	032294
16.0	22.0	5.0	TKM R 2.0	032295
16.0	22.0	5.0	TKM R 2.5	032296
16.0	22.0	5.0	TKM R 3.0	032297
16.0	22.0	5.0	TKM R 4.0	032299
16.0	22.0	6.0	TKM R 5.0	032301
15.0	20.0	8.0	TKM 11/0 - 45°	032304
15.0	17.5	8.0	TKM 11/1 - 60°	032305
15.0	22.3	9.0	TKM 12/0 R3	032306
15.0	20.0	7.3	TKM 12/3 R2	032308
15.0	18.3	7.3	TKM 12/3 R2F	032309
15.0	20.0	7.0	TKM 12/4 R1.5	032310
15.0	22.3	10.0	TKM 12/5 R3F	032311
15.0	22.3	7.3	TKM 13/0 (R1) N=5	032312
15.0	22.3	9.0	TKM 13/1 (R1) N=7	032313
15.0	22.3	7.3	TKM 16/0	032315
15.0	23.0	8.0	TKM 21/0 - 45°	032316
15.0	20.5	8.0	TKM 21/1 - 60°	032317
15.0	23.0	9.0	TKM 22/0 R3	032318
15.0	23.0	7.3	TKM 22/3 R2	032320
15.0	23.0	7.0	TKM 22/4 R1.5	032322
15.0	23.0	9.0	TKM 22/5 R3F	032323
15.0	25.7	7.3	TKM 23/0 (R1) N=5	032324
15.0	25.7	9.3	TKM 23/1 (R1) N=7	032325
15.0	23.0	9.0	TKM 22/1 R3	032319
15.0	25.7	7.3	TKM 24/0 R5	032326
15.0	25.7	7.3	TKM 24/1 R5	032327
15.0	25.7	7.3	TKM 26/0	032329

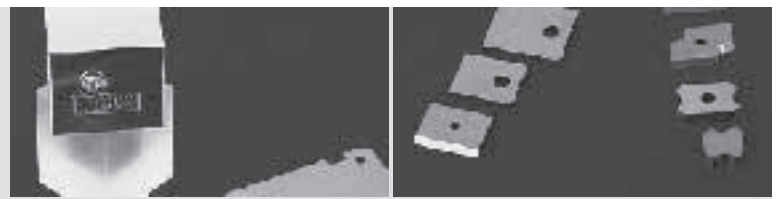
* For use in Leitz-cutterheads only
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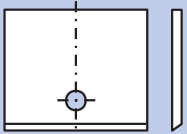
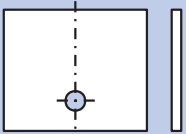
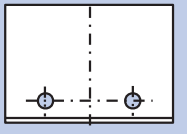
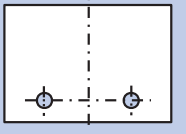
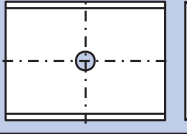
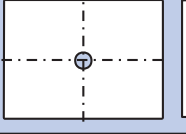
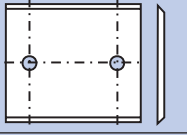
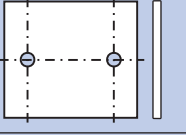
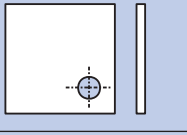
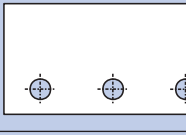
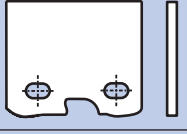
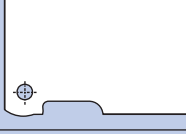
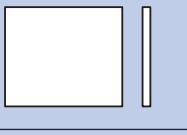
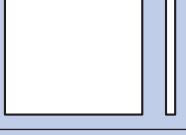
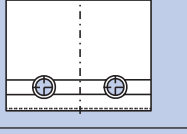
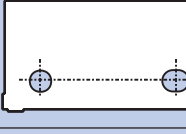
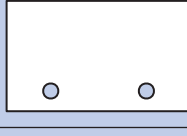
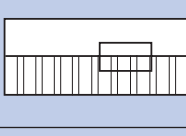
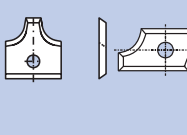
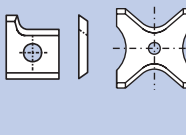
Blanks for profiling and radius knives
Blanketts zum Profilieren und Radienplatten
Plaquettes à profiler et plaquettes profilées
Placchette da profilare e placchette profilate
Piezas en bruto para perfilar y perfiladas

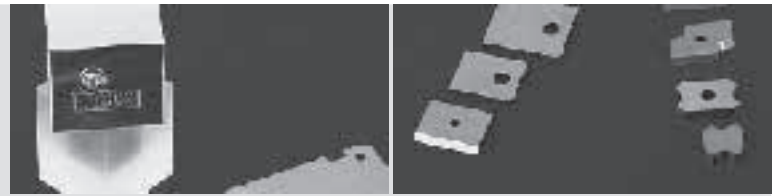






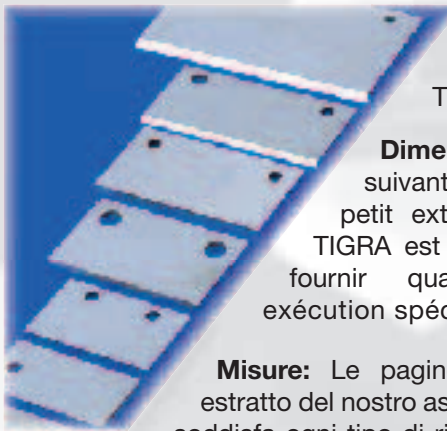
Blanks for profiling and radius knives
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Piezas en bruto para perfilar y perfiladas

			Page Seite Page Pagina Página
		Blanks with 1 bore hole at the bottom Blanketts mit 1 Bohrung unten Plaquettes avec 1 trou en bas Placchette con 1 foro basso Piezas en bruto con 1 taladro abajo	28-30
		Blanks with 2 bore holes at the bottom Blanketts mit 2 Bohrungen unten Plaquettes avec 2 trous en bas Placchette con 2 fori bassi Piezas en bruto con 2 taladros abajo	31-35
		Blanks with 1 bore hole in the center Blanketts mit 1 Bohrung mittig Plaquettes avec 1 trou au centre Placchette con 1 foro nel centro Piezas en bruto con 1 taladro en el centro	36
		Blanks with 2 bore holes in the center Blanketts mit 2 Bohrungen mittig Plaquettes avec 2 trous au centre Placchette con 2 fori nel centro Piezas en bruto con 2 taladros en el centro	37-38
		Special blanks for profiling Spezial-Blanketts zum Profilieren Plaquettes spéciales por profiler Placchette speciali da profilare Piezas en bruto especiales para perfilar	39
		Superprofiler*	40-41
		Blanks without bores, thickness ground Blanketts ohne Bohrung, plangeschliffen Plaquettes sans trous, rectifiées Placchette senza fori, rettificati Piezas sin taladro, rectificadas	42
		Freud System* Leuco ECO-PRO System* Oertli System* Crossgrove/Quernut/Rainure transversal/ Scanalatura/Ranura transversal+Microfinish	43-48
		Backing plates & packing Stützplatten & Verpackungen Supports & emballages Supporti & imballi Placas de soporte & embalaje	49
		Profiled & preprofiled standard blanks Profilierte und vorprofilierte Standardblanketts Plaquettes standard profilées & preprofilées Placchette profilate & presagomate standard Piezas en bruto perfiadas & preperfiladas standard	50-56



Blanks for profiling
Blanketts zum Profilieren
Ébauches à profiler
Placchette da profilare
Placas para perfilado

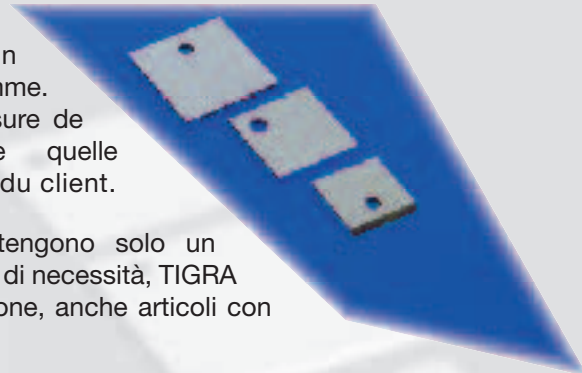
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Abmessungen: Die folgenden Seiten stellen nur einen kleinen Ausschnitt unseres Lieferprogramms dar. Zusätzlich liefert TIGRA fast jede Art von Sonderausführung nach Kundenwunsch.

Dimensions: Les pages suivantes ne présentent u'un petit extrait de notre gamme. TIGRA est également en mesure de fournir quasiment n'importe quelle exécution spéciale sur demande du client.

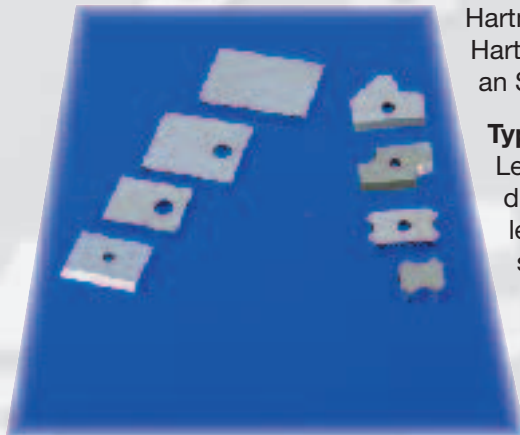
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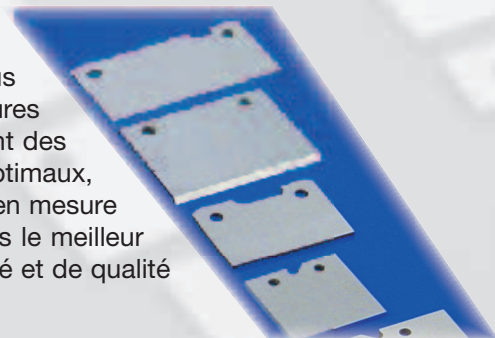
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Carbide grades: The blanks are available in all required carbide grades. By using the optimum carbide grades you are able to give to your customers the optimum in lifetime and surface quality.

Hartmetallsorten: Blanketts sind in allen gewünschten Hartmetallsorten lieferbar. Durch Verwendung der optimalen Hartmetallsorte können Sie Ihren Kunden stets ein Optimum an Standzeit und Oberflächengüte bieten.

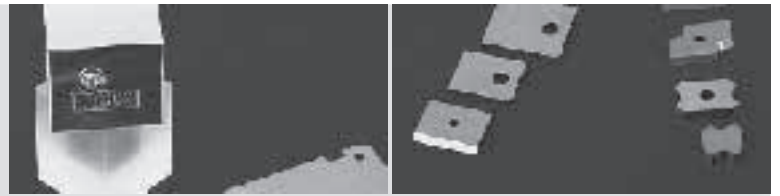


Types de carbures: Les ébauches sont disponibles dans tous le types de carbures souhaités. En utilisant des types de carbures optimaux, vous serez toujours en mesure d'offrir à vos clients le meilleur niveau de durabilité et de qualité de surface.



Tipi di metallo duro: Le placchette da profilare possono essere fornite in tutti i tipi di metallo duro desiderati . Anche in questo settore potete offrire ai vostri clienti la soluzione ottimale in termini di tecnica applicativa.

Calidades de metal duro: Disponemos de placas de todas la calidades de metal duro.Utilizando la calidad adecuada, podrá ofrecer a sus clientes rendimientos óptimos en duración y calidad superficial.



Blanks for profiling
Blanketts zum Profilieren
Ébauches à profiler
Placchette da profilare
Placas para perfilado

Preprofiled blanks: With the use of preformed blanks the time-consuming roughing or wire cutting process is not necessary any more. You can immediately start finish grinding and therefore you save the majority of the normal profiling cost.

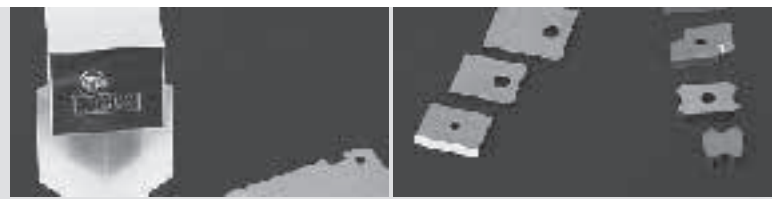
Vorprofilierter Blanketts: Mit der Verwendung vorprofilierter Blanketts entfällt der zeitraubende Schruppvorgang bzw. das Drahtschneiden. Sie können sofort mit dem Schlichten beginnen und sparen so den größten Teil der Profilierkosten ein.

Ébauches préprofilées: L'utilisation d'ébauches préprofilées permet de supprimer les longues opération d'ébarbage ou de coupe au fil. Vous pouvez immédiatement commencer la finition et économiser ainsi une grande partie des coûts de profilage.

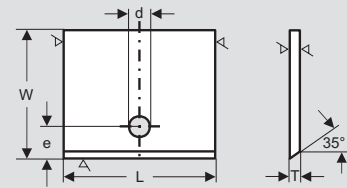
Placchette presagomate: Con l'uso delle placchette presagomate non serve sgrossare. Potete cominciare subito con la finitura e ridurre una buona parte dei costi di profilatura.

Placas preperfiladas: Las placas preperfiladas eliminan la costosa fase de desbastado resp. electroerosión a hilo. Podrá pasar directamente a la fase de acabado, eliminando así la mayor parte del coste correspondiente a la operación de perfilado.

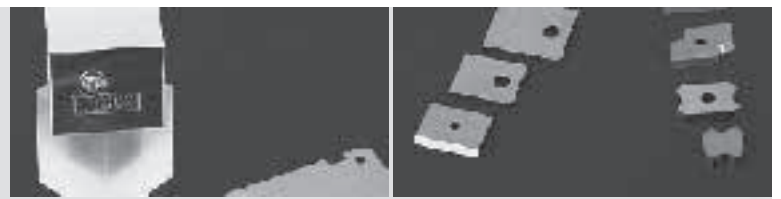




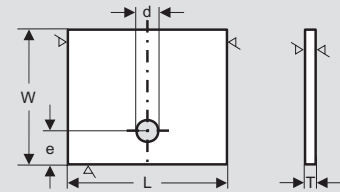
Blanks for profiling
Blanketts zum Profilieren
Plaquettes à profiler
Placchette da profilare
Piezas en bruto para perfilar



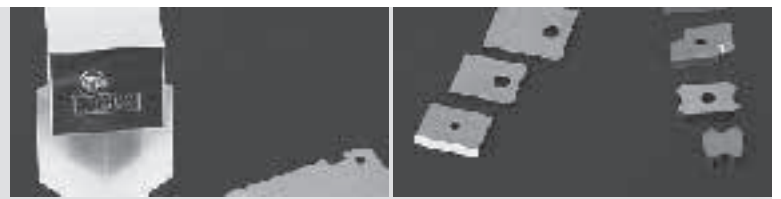
L	W	T	d	a	e	T04F	T03SMG	T10MG	TL15
mm	mm	mm	mm	mm	mm				
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15.0	20.4	2.0	4.1		6.3	014553	014556	014559	014561
15.0	25.4	2.0	4.1		6.3	014573	030951	014577	014579
15.0	30.4	2.0	4.1		6.3	014590	030952	014595	030953
15.8	30.4	2.0	4.1		6.3	014598	014599	014601	014602
16.0	20.4	2.0	4.1		6.3	014609	030954	030955	030956
19.8	30.4	2.0	4.1		6.3	014614	030957	014616	030958
20.0	20.4	2.0	4.1		6.3	014648	014651	014655	014657
20.0	25.4	2.0	4.1		6.3	014684	014688	014692	014696
20.0	30.4	2.0	4.1		6.3	014723	014727	014729	014733
20.0	35.4	2.0	4.1		6.3	014750	014753	014756	014758
20.0	40.4	2.0	4.1		6.3	014768	030959	030960	030961
25.0	20.4	2.0	4.1		6.3	014783	014786	014789	014792
25.0	25.4	2.0	4.1		6.3	014812	014816	014819	014824
25.0	30.4	2.0	4.1		6.3	014848	014851	014856	014861
25.0	35.4	2.0	4.1		6.3	014880	014883	014887	014889
30.0	20.4	2.0	4.1		6.3	014917	030962	014922	014925
30.0	25.4	2.0	4.1		6.3	014970	014974	014980	014986
30.0	30.4	2.0	4.1		6.3	015045	015049	015054	015059
30.0	35.4	2.0	4.1		6.3	015104	015108	015113	015116
30.0	40.4	2.0	4.1		6.3	015148	030963	015154	015157
35.0	20.4	2.0	4.1		6.3	015261	030964	015265	015267
35.0	25.4	2.0	4.1		6.3	015286	030965	015290	015293
35.0	30.4	2.0	4.1		6.3	015334	030966	015339	015342
35.0	35.4	2.0	4.1		6.3	015368	030967	015372	015375
35.0	40.4	2.0	4.1		6.3	015398	030968	015403	030969



Blanks for profiling
 Blanketts zum Profilieren
 Plaquettes à profiler
 Placchette da profilare
 Piezas en bruto para perfilar

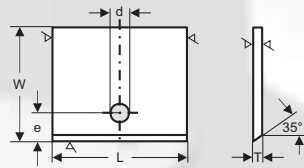
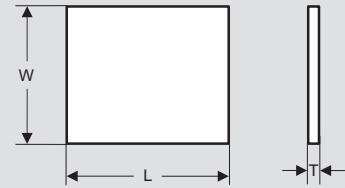


L	W	T	d	a	e	T04F	T03SMG	T10MG	TL15
mm	mm	mm	mm	mm	mm				
15.0	15.4	2.0	4.1		6.5	014536	030982	014540	030983
15.0	20.4	2.0	4.1		6.5	014554	014557	014560	030984
15.0	25.4	2.0	4.1		6.5	014574	030985	014578	014580
15.0	30.4	2.0	4.1		6.5	014591	030986	014596	030987
16.0	20.4	2.0	4.1		6.5	014610	030988	030989	030990
18.0	18.3	2.0	3.0		6.0	018849	030991	030992	018850
20.0	20.4	1.5	4.1		6.5	040831			040940
20.0	20.4	2.0	4.1		6.5	014649	014652	014656	014659
20.0	25.4	2.0	4.1		6.5	014686	030993	014694	014698
20.0	25.3	2.0	3.0		6.0	018851	030994	030995	030996
20.0	30.4	2.0	4.1		6.5	014725	030997	014731	014735
20.0	35.4	2.0	4.1		6.5	014751	030998	014757	030999
20.0	40.4	2.0	4.1		6.5	031018	031019	031020	012954
24.0	28.3	2.0	3.0		6.0	018852	031000	031001	018853
25.0	25.4	2.0	4.1		6.5	014813	014817	014820	014827
25.0	30.4	2.0	4.1		6.5	014849	014852	014858	014863
25.0	30.4	2.0	6.0		6.5	019470			032399
25.0	35.4	2.0	4.1		6.5	014881	014884	014888	014890
30.0	20.4	2.0	4.1		6.5	014918	031002	014923	014927
30.0	25.4	2.0	4.1		6.5	014972	031003	014982	014988
30.0	30.4	2.0	4.1		6.5	015047	015050	015056	015060
30.0	30.4	2.0	6.0		6.5	019385			032403
30.0	35.4	2.0	4.1		6.5	015106	031004	015114	031005
30.0	40.4	2.0	4.1		6.5	015149	015151	015155	015158
32.0	22.3	2.0	3.0		6.0	018855	031006	031007	031008
35.0	20.4	2.0	4.1		6.5	015262	031009	015266	031010
35.0	25.4	2.0	4.1		6.5	015287	031011	015291	015294
35.0	30.4	2.0	4.1		6.5	015335	031012	015340	031013
35.0	35.4	2.0	4.1		6.5	015369	031014	015373	015376
35.0	40.4	2.0	4.1		6.5	015399	015401	015404	015405
35.0	40.4	2.0	6.1		6.0	019731			032407
40.0	30.3	2.0	3.0		6.0	018856	031015	031016	031017

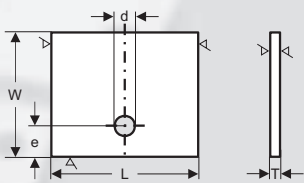


Blanks for profiling
 Blanketts zum Profilieren
 Plaquettes à profiler
 Placchette da profilare
 Piezas en bruto para perfilar

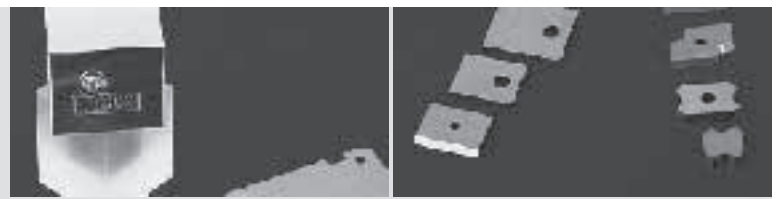
Italian Style



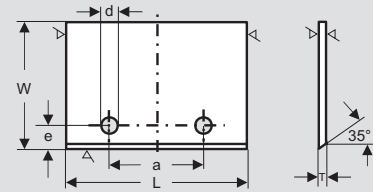
L	W	T	d	a	e	T04F	T03SMG	T10MG	TL15
mm	mm	mm	mm	mm	mm				
15.0	15.4	2.0	4.5		6.5	031021	014545	014547	031022
15.0	20.4	2.0	4.5		6.5	034989	014566	014569	031023
15.0	25.4	2.0	4.5		6.5	034971	014584	014585	031025
15.0	30.4	2.0	4.5		6.5	034972	014604	014606	031027
20.0	20.4	2.0	4.5		6.5	034973	014664	014665	031029
20.0	25.4	2.0	4.5		6.5	034974	014706	014708	031030
20.0	30.4	2.0	4.5		6.5	034975	014739	014741	031031
20.0	35.4	2.0	4.5		6.5	034976	014762	014764	031032
25.0	20.4	2.0	4.5		6.5	034977	014797	014799	031033
25.0	25.4	2.0	4.5		6.5	034978	014832	014834	031034
25.0	30.4	2.0	4.5		6.5	034979	014869	014871	031035
25.0	35.4	2.0	4.5		6.5	034980	014893	014895	031036
30.0	20.4	2.0	4.5		6.5	034981	014932	014935	031037
30.0	25.4	2.0	4.5		6.5	034982	014993	014995	031038
30.0	30.4	2.0	4.5		6.5	034983	015064	015068	031039
30.0	35.4	2.0	4.5		6.5	034984	015122	015124	031040
35.0	25.4	2.0	4.5		6.5	034986	015299	015301	031042
35.0	30.4	2.0	4.5		6.5	034987	015345	015347	031043



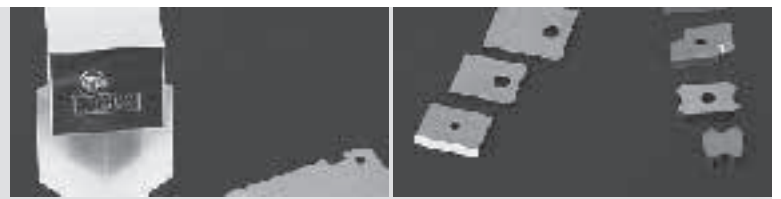
L	W	T	d	a	e	T04F	T03SMG	T10MG	TL15
mm	mm	mm	mm	mm	mm				
15.0	20.4	2.0	4.5		6.5	034970	012955	014570	031047
15.0	25.4	2.0	4.5		6.5	034990	031045	031046	014586
15.0	30.4	2.0	4.5		6.5	034991	031049	014607	031050
20.0	20.4	2.0	4.5		6.5	034992	031051	014666	014667
20.0	25.4	2.0	4.5		6.5	034993	031053	014709	014710
20.0	30.4	2.0	4.5		6.5	034994	031056	014742	014743
20.0	35.4	2.0	4.5		6.5	034995	031058	014765	031059
25.0	20.4	2.0	4.5		6.5	041075	100453	014800	041076
25.0	25.4	2.0	4.5		6.5	034996	031061	014835	014836
25.0	30.4	2.0	4.5		6.5	034997	031063	014872	031064
25.0	35.4	2.0	4.5		6.5	038344	100454	014896	041077
30.0	20.4	2.0	4.5		6.5	034998	014933	031066	031067
30.0	25.4	2.0	4.5		6.5	038900	100455	014996	041079
30.0	30.4	2.0	4.5		6.5	015066	015065	015069	031069
30.0	35.4	2.0	4.5		6.5	042107	100458	100456	100457
35.0	40.4	2.0	4.5		6.5	042108	100460	015163	100459



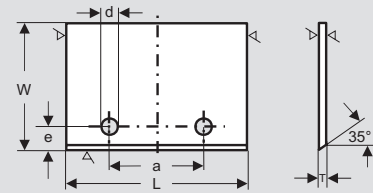
Blanks for profiling
 Blanketts zum Profilieren
 Plaquettes à profiler
 Placchette da profilare
 Piezas en bruto para perfilar



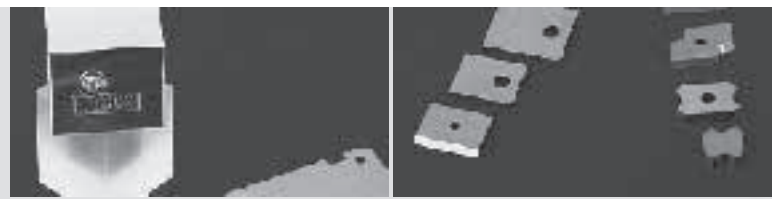
L mm	W mm	T mm	d mm	a mm	e mm	T04F	T03SMG	T10MG	TL15
24.0	20.4	2.0	4.1	12.0	6.0	017436	041295	041296	041297
30.0	20.4	2.0	4.1	14.0	6.0	017771	031072	031073	031074
30.0	20.4	2.0	4.1	14.0	5.5	014937	031070	014940	031071
30.0	20.4	2.0	4.1	14.0	6.3	039328	041232	041233	041234
30.0	25.4	2.0	4.1	14.0	5.5	014999	012956	012957	031167
30.0	25.4	2.0	4.1	14.0	6.3	015007	015008	031075	015009
30.0	30.4	2.0	4.1	14.0	5.5	015072	031076	031077	031078
30.0	30.4	2.0	4.1	14.0	6.3	039329	041235	041236	041237
30.0	35.4	2.0	4.1	14.0	5.5	015125	031079	031080	015130
30.0	35.4	2.0	4.1	14.0	6.3	019495	041238	041239	041240
30.0	40.4	2.0	4.1	20.0	5.5	015164	031081	031082	031083
31.8	25.4	2.0	4.1	16.0	6.3	041067	041348	036909	041349
35.0	20.4	2.0	4.1	14.0	5.5	031085	031084	031086	015276
35.0	20.4	2.0	4.1	20.0	5.5	031087	031088	031089	015278
35.0	20.4	2.0	4.1	26.0	5.5	015274	031090	031091	031092
35.0	25.4	2.0	4.1	26.0	5.5	015305	031093	015311	015313
35.0	25.4	2.0	4.1	14.0	6.3	039575	041241	041242	041243
35.0	25.4	2.0	4.1	18.0	6.3	019885	041335	041336	041337
35.0	30.4	2.0	4.1	20.0	5.5	015356	031094	031095	015357
35.0	30.4	2.0	4.1	14.0	6.3	039576	041244	041245	041246
35.0	35.4	2.0	4.1	14.0	6.3	039577	041247	041248	041249
35.0	40.4	2.0	4.1	20.0	5.5	015410	031096	031097	015415
35.0	40.4	2.0	4.1	14.0	6.3	039578	041250	041251	041252
40.0	20.4	2.0	4.1	26.0	5.5	015440	015443	015447	015451
40.0	20.4	2.0	4.1	26.0	6.3	039566	041253	041254	036345
40.0	25.4	2.0	4.1	20.0	5.5	015502	031098	031099	031100
40.0	25.4	2.0	4.1	26.0	5.5	015482	015486	015492	015497
40.0	25.4	2.0	4.1	26.0	6.0	017623	031101	031102	031103
40.0	25.4	2.0	4.1	26.0	6.3	039330	041255	041256	041257
40.0	30.4	2.0	4.1	20.0	5.5	015542	015545	015548	015553
40.0	30.4	2.0	4.1	26.0	5.5	015560	015563	015566	015569
40.0	30.4	2.0	4.1	26.0	6.3	015571	041258	041259	038185
40.0	35.4	2.0	4.1	26.0	5.5	015611	015613	015620	015624
40.0	35.4	2.0	4.1	26.0	6.0	015629	031104	031105	031106
40.0	35.4	2.0	4.1	20.0	5.5	015630	031107	031108	015632
40.0	35.4	2.0	4.1	26.0	6.3	039331	041260	041261	041262
40.0	40.4	2.0	4.1	26.0	6.0	015646	031109	015649	015652
40.0	40.4	2.0	4.1	20.0	6.0	015655	015658	015659	031110
40.0	40.4	2.0	4.1	26.0	6.3	039567	041263	041264	038186
40.0	45.2	2.0	4.1	26.0	6.0	019372	041333	041334	019373



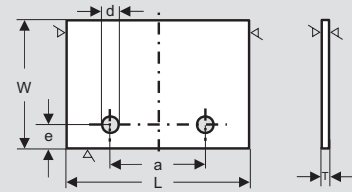
Blanks for profiling
Blanketts zum Profilieren
Plaquettes à profiler
Placchette da profilare
Piezas en bruto para perfilar



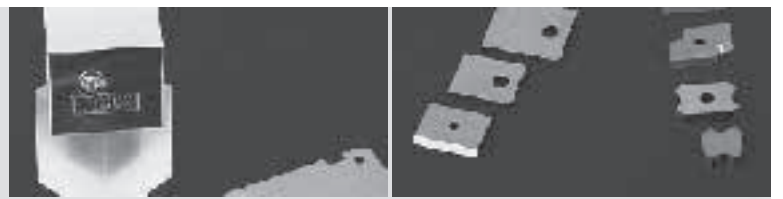
L	W	T	d	a	e	T04F	T03SMG	T10MG	TL15
mm	mm	mm	mm	mm	mm				
50.0	16.0	2.0	4.1	26.0	5.5	017639	031111	031112	031113
50.0	16.0	2.0	4.1	26.0	6.0	015794	031114	015796	031115
50.0	20.4	2.0	4.1	26.0	5.5	015804	031116	031117	015815
50.0	20.4	2.0	4.1	26.0	6.3	039392	015821	041265	036337
50.0	25.4	2.0	4.1	26.0	5.5	015841	015846	015849	015852
50.0	25.4	2.0	4.1	26.0	6.3	039568	041266	041267	036341
50.0	30.4	2.0	4.1	26.0	5.5	015871	015874	015878	015880
50.0	30.4	2.0	4.1	26.0	6.3	039569	038369	015884	038188
50.0	35.4	2.0	4.1	34.0	6.0	015896	031118	015901	031119
50.0	35.4	2.0	4.1	26.0	6.0	015904	031120	031121	031122
50.0	35.4	2.0	4.1	26.0	5.5	015905	031123	031124	031125
50.0	35.4	2.0	4.1	26.0	6.3	018387	041268	041269	041270
50.0	40.4	2.0	4.1	34.0	6.0	015916	031126	031127	031128
50.0	40.4	2.0	4.1	26.0	6.3	019030	041271	041272	035746
50.0	45.4	2.0	4.1	34.0	6.0	015940	015942	031129	031130
50.0	45.4	2.0	4.1	26.0	6.3	039579	041273	041274	041275
50.0	50.4	2.0	4.1	34.0	6.0	015953	031131	031132	031133
60.0	20.4	2.0	4.1	26.0	5.5	016001	031134	031135	031136
60.0	20.4	2.0	4.1	44.0	5.5	016009	031137	031138	031139
60.0	25.4	2.0	4.1	26.0	5.5	016031	031140	016037	016040
60.0	25.4	2.0	4.1	44.0	5.5	016046	031141	016047	031142
60.0	30.4	2.0	4.1	26.0	6.0	016068	031143	031144	016074
60.0	30.4	2.0	4.1	26.0	6.3	039571	041276	016082	038189
60.0	30.4	2.0	4.1	44.0	6.0	016076	031145	031146	016077
60.0	35.4	2.0	4.1	26.0	6.0	016114	031147	016119	016123
60.0	35.4	2.0	4.1	26.0	6.3	039572	041277	041278	038190
60.0	35.4	2.0	4.1	44.0	6.0	016126	031148	031149	031150
60.0	40.4	2.0	4.1	26.0	6.3	039573	041279	041280	036782
60.0	40.4	2.0	4.1	44.0	6.0	016158	016164	016170	016175
60.0	45.4	2.0	4.1	26.0	6.3	039574	041281	041282	034672
60.0	45.4	2.0	4.1	44.0	6.0	019375	019374	031151	019376
75.0	30.4	2.0	4.1	44.0	6.0	016258	031152	031153	031154
80.0	30.4	2.0	4.1	60.0	6.3	039580	041283	041284	041285
80.0	35.4	2.0	4.1	60.0	6.3	041286	041287	041288	041289
80.0	40.4	2.0	4.1	60.0	6.3	041292	041293	041294	035745
80.0	45.4	2.5	4.1	60.0	6.0	016321	031155	016323	016324
80.0	50.4	2.5	4.1	60.0	6.0	016328	031156	031157	031158
100.0	45.4	2.5	4.2	80.0	6.0	014519	031159	031160	031161
100.0	50.4	2.5	4.2	60.0	6.0	014524	031162	031163	031164
120.0	45.4	2.5	4.2	80.0	6.0	014528	031165	031166	014529



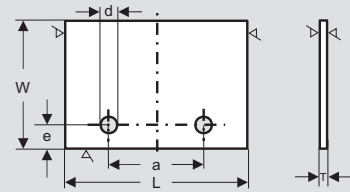
Blanks for profiling
Blanketts zum Profilieren
Plaquettes à profiler
Placchette da profilare
Piezas en bruto para perfilar



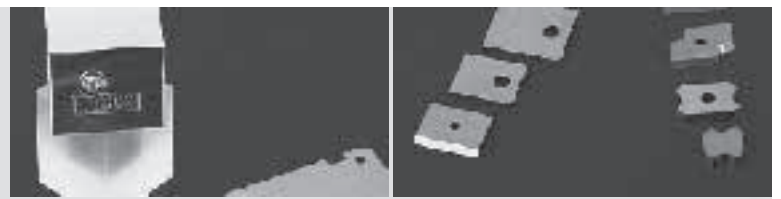
L	W	T	d	a	e	T04F	T03SMG	T10MG	TL15
mm	mm	mm	mm	mm	mm				
19.0	30.0	2.0	3.6	8.0	4.75	017790	031963	031964	031965
25.4	30.6	2.0	3.6	14.3	4.75	017791	031966	031967	031968
30.0	20.4	2.0	4.1	14.0	6.5	014938	014939	014941	014943
30.0	25.4	2.0	4.1	14.0	6.5	015000	015001	015003	015005
30.0	25.4	2.0	4.1	19.0	4.75	017603	031969	031970	017604
30.0	25.4	2.0	4.1	19.0	6.5	019428	031971	031972	031973
30.0	30.4	2.0	4.1	14.0	6.5	015073	015074	015077	015078
30.0	30.2	2.0	4.1	19.0	4.75	017605	031974	031975	031976
30.0	30.0	2.0	3.6	19.0	4.75	017785	031977	031978	017787
30.0	35.4	2.0	6.0	12.0	6.0	033964	041327	041328	041329
30.0	35.4	2.0	4.1	14.0	6.5	015126	015127	015129	015132
30.0	40.4	2.0	4.1	14.0	6.5	015165	015166	031979	031981
35.0	20.4	2.0	4.1	14.0	6.5	015275	031988	031989	031990
35.0	25.4	2.0	4.1	14.0	6.5	015306	015308	015312	015314
35.0	30.4	2.0	4.1	14.0	6.5	015351	031991	015354	031992
35.0	35.4	2.0	4.1	20.0	4.8	019831	041330	041331	041332
35.0	35.4	2.0	4.1	14.0	6.5	015383	031993	015385	015386
35.0	40.4	2.0	4.1	14.0	6.5	015411	015412	015414	015416
40.0	20.4	2.0	5.5	26.0	5.5	037885	041338	041339	041340
40.0	20.4	2.0	4.1	26.0	6.5	015441	015444	015448	015452
40.0	25.4	2.0	4.1	26.0	6.5	015484	015487	015493	015499
40.0	30.2	2.0	5.0	27.0	6.3	035290	041298	041299	039325
40.0	30.4	2.0	4.1	26.0	6.5	015544	031994	015550	015554
40.0	30.4	2.0	6.0	26.0	5.5	019253			032414
40.0	35.4	2.0	5.0	27.0	6.3	018955	041300	041301	041302
40.0	35.4	2.0	4.1	26.0	6.5	015612	015614	015622	015625
40.0	35.4	2.0	6.0	26.0	5.5	019471			032415
40.0	40.2	2.0	5.0	27.0	6.3	019002	041303	041304	041305
40.0	40.4	2.0	4.1	26.0	6.5	015647	031995	015650	015654
40.0	40.4	2.0	6.0	26.0	5.5	019254			032416
40.0	45.4	2.0	4.1	26.0	6.5	015676	031996	015677	031997



Blanks for profiling
Blanketts zum Profilieren
Plaquettes à profiler
Placchette da profilare
Piezas en bruto para perfilar

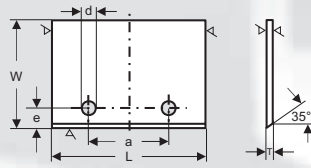


L mm	W mm	T mm	d mm	a mm	e mm	T04F	T03SMG	T10MG	TL15
50.0	20.4	2.0	4.1	26.0	6.5	015805	015808	015813	015817
50.0	20.4	2.0	4.1	24.0	6.0	019600	041341	041342	041343
50.0	25.2	2.0	5.0	26.0	6.5	019065	041306	041307	041308
50.0	25.4	2.0	4.1	26.0	6.5	015843	015847	015850	015854
50.0	30.4	2.0	4.1	26.0	6.5	015872	015875	015879	032001
50.0	30.4	2.0	6.0	26.0	6.5	019382			032422
50.0	32.4	2.0	3.0	24.0	6.0	018857	031998	031999	032000
50.0	35.4	2.0	4.1	26.0	6.5	015897	015898	015902	032002
50.0	40.4	2.0	4.1	26.0	6.5	015917	032003	015920	015922
50.0	40.4	2.0	6.0	26.0	6.5	019383			032424
50.0	45.4	2.0	4.1	26.0	6.5	015941	032004	032005	032006
50.0	50.4	2.0	4.1	26.0	6.5	015954	015955	015956	032007
60.0	20.4	2.0	4.1	26.0	6.5	016002	016003	016007	032009
60.0	25.4	2.0	4.1	26.0	6.5	016033	032010	016038	016042
60.0	30.4	2.0	4.1	26.0	6.5	016069	016070	016072	032011
60.0	35.4	2.0	4.1	26.0	6.5	016116	032012	016121	016125
60.0	40.4	2.0	4.1	26.0	6.5	016160	032013	016172	016177
80.0	25.2	2.0	4.1	60.0	6.5	035291	041309	041310	041311
80.0	30.4	2.0	4.1	26.0	6.5	016276	032014	016279	016281
80.0	35.4	2.0	4.1	26.0	6.5	016290	032015	016292	032016

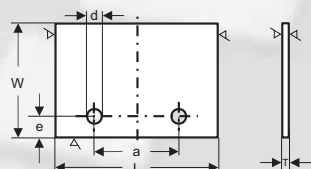


Blanks for profiling
 Blanketts zum Profilieren
 Plaquettes à profiler
 Placchette da profilare
 Piezas en bruto para perfilar

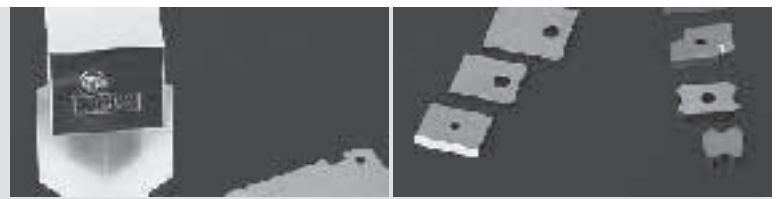
Italian Style



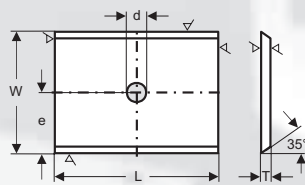
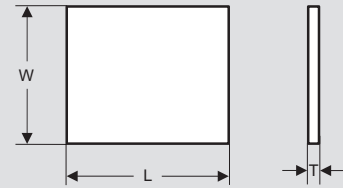
L	W	T	d	a	e	T04F	T03SMG	T10MG	TL15
mm	mm	mm	mm	mm	mm				
30.0	25.4	2.0	4.5	14.0	6.5	035066	015013	015015	031590
30.0	30.4	2.0	4.5	14.0	6.5	012981	015084	015088	031591
30.0	35.4	2.0	4.5	14.0	6.5	035069	015134	015136	031592
40.0	20.4	2.0	4.5	26.0	6.5	012982	015457	015460	031597
40.0	25.4	2.0	4.5	26.0	6.5	035073	015504	015508	031598
40.0	30.4	2.0	4.5	26.0	6.5	035075	015574	015577	031599
50.0	20.4	2.0	4.5	26.0	6.5	035078	015823	015826	031600
50.0	35.4	2.0	4.5	26.0	6.5	035082	015907	015909	031601
60.0	20.4	2.0	4.5	26.0	6.5	035084	016010	016012	031603
60.0	30.4	2.0	4.5	26.0	6.5	016084	043981	016086	041090
60.0	35.4	2.0	4.5	26.0	6.5	035086	016130	016132	031604
80.0	20.4	2.0	4.5	26.0	6.5	035089	016264	031607	031608
80.0	25.4	2.0	4.5	26.0	6.5	035090	016270	016272	031609



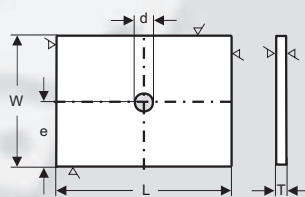
L	W	T	d	a	e	T04F	T03SMG	T10MG	TL15
mm	mm	mm	mm	mm	mm				
30.0	20.4	2.0	4.5	14.0	6.5	014947	050284	050284	050285
30.0	25.4	2.0	4.5	14.0	6.5	035067	031612	031612	015016
30.0	30.4	2.0	4.5	14.0	6.5	015085	015086	015086	015089
30.0	35.4	2.0	4.5	14.0	6.5	035070	031616	031616	015137
35.0	25.4	2.0	4.5	14.0	6.5	015320	050286	050286	015321
35.0	30.4	2.0	4.5	14.0	6.5	042115	050287	050287	050288
35.0	35.4	2.0	4.5	14.0	6.5	015389	050289	050289	015390
40.0	20.4	2.0	4.5	26.0	6.5	015458	015461	015461	041094
40.0	25.4	2.0	4.5	26.0	6.5	035074	015509	015509	031643
40.0	30.4	2.0	4.5	26.0	6.5	035076	015578	015578	015579
40.0	35.4	2.0	4.5	26.0	6.5	012980	031621	031621	015638
40.0	40.4	2.0	4.5	26.0	6.5	035077	015667	015667	015668
50.0	20.4	2.0	4.5	26.0	6.5	035079	015827	015827	015860
50.0	25.4	2.0	4.5	26.0	6.5	035080	031627	031627	012974
50.0	30.4	2.0	4.5	26.0	6.5	035081	015889	015889	015890
50.0	35.4	2.0	4.5	26.0	6.5	042117	050290	050290	050291
50.0	40.4	2.0	4.5	26.0	6.5	042118	015927	015927	050292
60.0	20.4	2.0	4.5	26.0	6.5	035085	016013	016013	031632
60.0	25.4	2.0	4.5	26.0	6.5	041095	036875	036875	041096
60.0	30.4	2.0	4.5	26.0	6.5	042121	050282	050282	050283
60.0	35.4	2.0	4.5	26.0	6.5	035087	016133	016133	031636
60.0	40.4	2.0	4.5	26.0	6.5	042122	050293	050293	050294
80.0	30.4	2.0	4.5	26.0	6.5	035091	016286	016286	031639
80.0	35.4	2.0	4.5	26.0	6.5	035092	016300	016300	031640
80.0	40.4	2.0	4.5	26.0	6.5	042124	100333	100334	100335



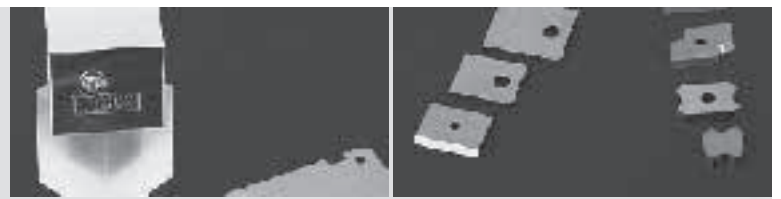
Blanks for profiling
Blanketts zum Profilieren
Plaquettes à profiler
Placchette da profilare
Piezas en bruto para perfilar



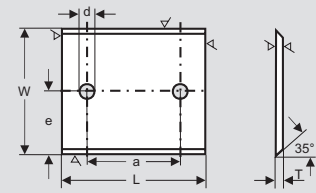
L	W	T	d	a	e	T04F	T03SMG	T10MG	TL15
mm	mm	mm	mm	mm	mm				
13.0	14.0	1.5	3.2			015189	033193	033194	033195
12.0	20.0	2.0	4.1			014618		052454	014620
13.0	16.0	2.0	3.0			017504	031647	031648	031649
13.0	16.0	2.0	4.0			018566			
20.0	16.0	2.0	3.0			014631	031650	031651	031652
20.0	20.0	2.0	4.1			014636	031653	014638	014640
20.0	24.0	2.0	3.5			014674	031654	031655	031656
25.0	16.0	2.0	4.1			014776	031657	031658	031659
25.0	25.0	2.0	4.1			014805	031660	031661	031662
30.0	20.0	2.0	4.1			014913	031663	031664	031665
30.0	26.0	2.0	4.1			015020	031666	031667	031668
40.0	25.0	2.0	4.1			015469	031672	031673	031674



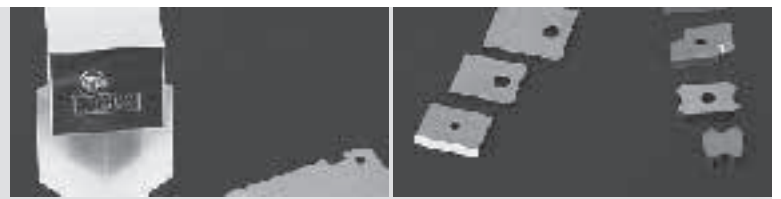
L	W	T	d	a	e	T04F	T03SMG	T10MG	TL15
mm	mm	mm	mm	mm	mm				
15.0	15.0	2.0	4.1			014532	031675	031676	031677
20.0	12.0	2.0	4.1			014619	031678	031679	031680
20.0	20.0	2.0	4.1			014637	031681	014639	014641
24.0	22.0	2.0	3.0			018841	031688	031689	031690
28.0	24.0	2.0	3.0			018842	031692	031693	031694
30.0	20.0	2.0	4.1			014914	031682	031683	031684
32.0	24.0	2.0	3.0			018843	031695	031696	031697
35.0	30.0	2.0	4.1			015328	031685	031686	031687
36.0	28.0	2.0	3.0			018844	031700	031699	031698



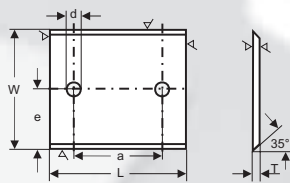
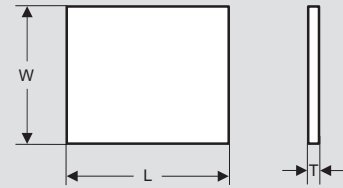
Blanks for profiling
Blanketts zum Profilieren
Plaquettes à profiler
Placchette da profilare
Piezas en bruto para perfilar



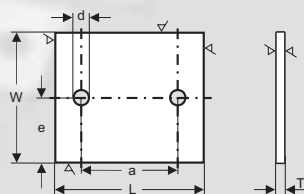
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30.0	16.0	2.0	4.0	20.0		014906	031706	014907	031707
30.0	25.0	2.0	3.5	20.0		014956	014958	014962	014965
30.0	25.0	2.0	3.0	20.0		017496	031708	031709	031710
30.0	26.0	2.0	3.5	20.0		015022	031711	031712	031713
30.0	35.0	2.0	4.1	20.0		015098	031714	031715	031716
40.0	16.0	2.0	4.1	26.0		015429	031717	031718	015430
40.0	20.0	2.0	4.1	20.0		015434	015435	031719	031720
40.0	20.0	2.0	4.1	26.0		015436	015437	031721	031722
40.0	25.0	2.0	4.1	20.0		015473	031723	031724	031725
40.0	25.0	2.0	4.1	26.0		015475	015476	031726	031727
40.0	30.0	2.0	3.5	20.0		015518	015521	015523	015526
40.0	30.0	2.0	4.1	20.0		015530	031728	031729	031730
40.0	30.0	2.0	4.1	26.0		015529	031731	031732	031733
40.0	32.62	2.0	3.5	20.0		015583	031734	031735	015587
40.0	35.0	2.0	4.1	20.0		015590	031736	031737	015592
40.0	35.0	2.0	4.1	26.0		015595	015596	015600	015603
40.0	37.82	2.0	3.5	20.0		015639	031738	031739	031740
40.0	40.0	2.0	4.1	20.0		015641	031741	031742	031743
40.0	40.0	2.0	3.5	20.0		015643	031744	031745	031746
40.0	42.86	2.0	3.5	20.0		015671	031747	031748	031749
45.0	30.0	2.0	4.1	26.0		015781	031750	031751	031752
50.0	16.0	2.0	4.1	26.0		015788	015789	031753	031754
50.0	20.0	2.0	4.1	26.0		015800	031755	031756	031757
50.0	25.0	2.0	4.1	26.0		015838	031758	031759	015836
50.0	30.0	2.0	4.1	26.0		015867	031760	031761	031762
50.0	45.0	2.0	4.1	34.0		015931	015933	015935	031766



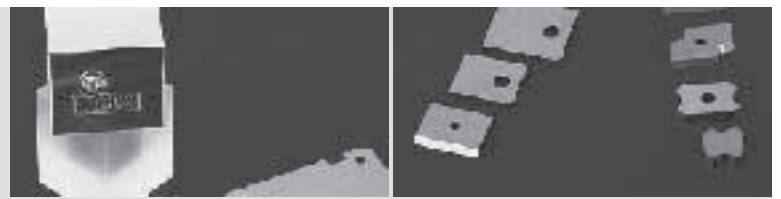
Blanks for profiling
 Blanketts zum Profilieren
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 Piezas en bruto para perfilar



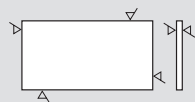
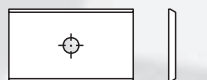
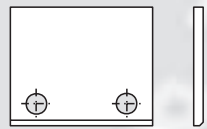
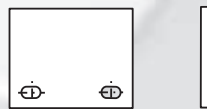
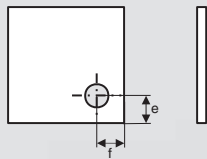
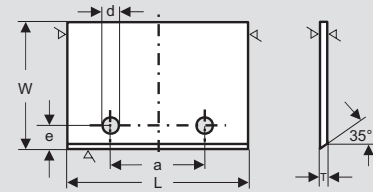
L	W	T	d	a	e	T04F	T03SMG	T10MG	TL15
mm	mm	mm	mm	mm	mm				
60.0	20.0	2.0	4.1	26.0		015992	031770	015995	015996
60.0	25.0	2.0	4.1	26.0		016022	031771	031772	016024
60.0	24.0	2.0	4.1	36.0		016027	031773	031774	031775
60.0	32.62	2.0	3.5	20.0		016089	031776	031777	031778
60.0	35.0	2.0	4.1	26.0		016091	016092	031779	016095
60.0	35.0	2.0	4.1	44.0		016098	016102	016104	016107
60.0	37.82	2.0	3.5	20.0		016137	031780	031781	031782
60.0	39.0	2.0	3.5	20.0		016138	031783	031784	016140
60.0	40.0	2.0	4.1	44.0		016145	016148	016149	016151
60.0	42.86	2.0	3.5	20.0		016184	031785	031786	031787
80.0	24.0	2.0	4.1	60.0		016265			
80.0	45.0	2.0	4.1	60.0		016317	016318	031794	031795



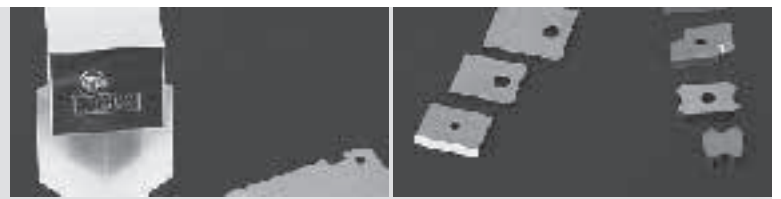
L	W	T	d	a	e	T04F	T03SMG	T10MG	TL15
mm	mm	mm	mm	mm	mm				
30.0	25.0	2.0	4.1	14.0		014957	031798	031799	031800
30.0	30.0	2.0	4.1	14.0		015035	031801	031802	031803
30.0	35.0	2.0	4.1	14.0		015099	031804	031805	031806
40.0	30.0	2.0	4.1	26.0		015519	031807	031808	031809
50.0	40.0	2.0	4.1	26.0		015913	031822	031823	031824
60.0	30.0	2.0	4.1	26.0		016061	016062	031825	031826
60.0	40.0	2.0	4.1	26.0		016147	031827	016150	031828



Special blanks for profiling
Spezial-Blanketts zum Profilieren
Plaquettes spéciales à profiler
Placchette speciali da profilare
Piezas en bruto especiales para perfilar

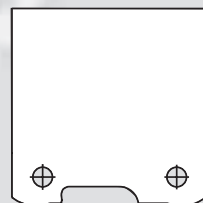
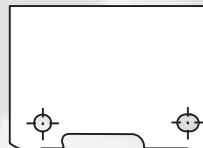
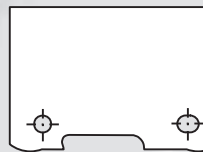
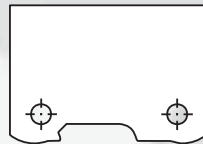
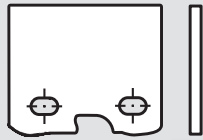
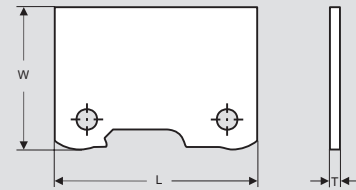


L	W	T	d	a	e	f	T04F
mm	mm	mm	mm	mm	mm	mm	
20.4	20.4	1.5	4.2		6.3	6.3	019915
20.4	27.6	1.5	4.2		6.2	6.1	019916
20.5	20.5	2.0	5.0		5.0	5.0	018084
25.5	20.5	2.0	5.0		6.0	6.0	018434
25.5	25.0	2.0	5.0		6.0	6.0	018546
25.5	25.5	2.0	5.0		6.0	6.0	018086
28.0	32.2	2.0	5.0		6.0	6.0	018536
40.0	50.2	2.0	4.5x7.0	27.0	7.5		035289
40.0	60.2	2.0	4.5x7.0	27.0	7.5		019068
60.0	25.2	2.0	7.0x4.5	45.5	6.3		037415
60.0	30.2	2.0	7.0x4.5	45.5	6.3		035292
60.0	40.2	2.0	7.0x4.5	45.5	6.3		035293
30.0	25.0	2.0	4.1	19.0	4.6		018068
30.0	27.0	2.0	4.1	19.0	4.6		018467
30.0	40.5	2.0	4.1	19.0	4.5		018602
35.0	27.0	2.0	4.1	19.0	4.6		018074
40.0	27.5	2.0	4.1	27.5	4.6		018367
40.0	27.5	2.0	4.1	19.0	4.6		018453
40.0	40.5	2.0	4.1	19.0	4.6		018605
50.0	20.5	2.0	4.1	26.0	6.0		019113
50.0	27.5	2.0	4.1	26.0	4.6		018364
50.0	27.5	2.0	4.1	26.0	6.0		018277
36.0	21.0	2.0	4.4				017583
60.0	30.4	2.0	5.6	20.0	7.0		019162
60.0	35.4	2.0	5.6	20.0	7.0		019472
60.0	40.4	2.0	5.6	20.0	7.0		019163
80.0	30.4	2.0	5.6	20.0	7.0		019164
80.0	35.4	2.0	5.6	20.0	7.0		019473
80.0	40.4	2.0	5.6	20.0	7.0		019165
80.0	27.0	2.0	4.1	67.0			032388
37.5	25.4	1.5					019140
50.0	25.4	1.5					018343



Blanks for profiling
 Blanketts zum Profilieren
 Plaquettes à profiler
 Placchette da profilare
 Piezas en bruto para perfilar

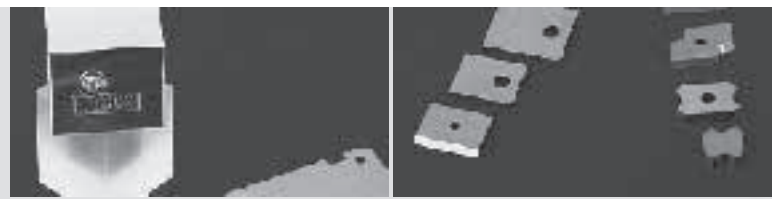
For Leuco Superprofiler system*



L mm	W mm	T mm	T04F	T03SMG	T10MG	TL15
31.0	26.0	1.5	015207	015210	015211	015214
41.0	28.0	1.5	015701	015708	015722	015727
41.0	28.0	2.0	015695	031835	031837	031839
41.0	35.0	1.5	015748	015750	015751	015753
41.0	35.0	2.0	015744	031840	015745	015746
51.0	35.0	1.5	015973	031841	015975	015978
51.0	45.0	2.0	015981	015984	031842	031843
60.8	30.6	1.5	016209	016214	016225	016229
60.8	30.6	2.0	016206	031844	031846	016208
61.0	45.0	2.0	016234	016238	016239	016242
81.0	45.0	2.0	016334	031847	016336	016339

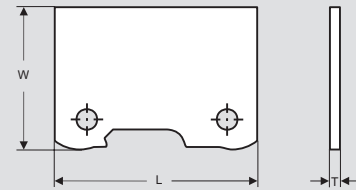
L mm	W mm	T mm	d mm	e mm	T04F	T03SMG	T10MG	TL15
40.4	41.2	2.0	4.1	6.0	015756			
40.4	41.2	2.0	5.1	8.0	033424	053741	033503	042598

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 * Sólo para empleo con portacuchillas de la firma Leuco

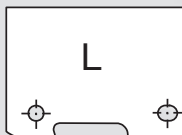
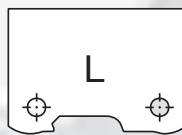
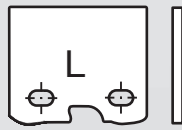


Blanks for profiling
 Blanketts zum Profilieren
 Plaquettes à profiler
 Placchette da profilare
 Piezas en bruto para perfilar

For Leuco Superprofiler system*



>>>MICROFINISH<<<



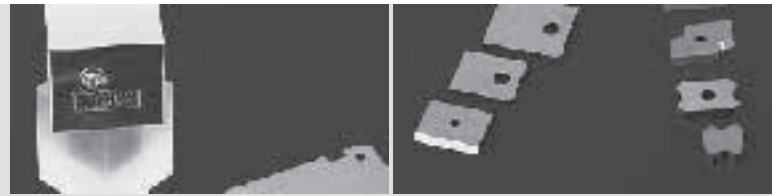
	L	W	T	T04F	T03SMG	T10MG	TL15
	mm	mm	mm				
L	31.0	26.0	1.5	032077	032076	015212	032074
R	31.0	26.0	1.5	015208	032072	015213	032073
L	41.0	28.0	1.5	015707	015711	015724	015730
R	41.0	28.0	1.5	015702	015709	015723	015728
L	41.0	28.0	2.0	031848	031849	031852	031854
R	41.0	28.0	2.0	015696	031850	031853	031855
L	41.0	35.0	1.5	032028	032029	032027	032030
R	41.0	35.0	1.5	032031	032032	015752	032033
L	41.0	35.0	2.0	032034	032037	032038	032041
R	41.0	35.0	2.0	032035	032036	032039	032040
L	51.0	35.0	1.5	034084	034085	034086	034087
R	51.0	35.0	1.5	032043	032044	032045	032046
L	51.0	45.0	2.0	034088	034089	034090	034091
R	51.0	45.0	2.0	015982	032047	032048	032049
L	60.8	30.6	1.5	032051	032053	032054	032055
R	60.8	30.6	1.5	032050	032052	016226	032056
L	60.8	30.6	2.0	032058	032059	032063	032062
R	60.8	30.6	2.0	032057	032060	032064	032061
L	61.0	45.0	2.0	034092	034093	034094	034095
R	61.0	45.0	2.0	016235	032065	032066	016243
L	81.0	45.0	2.0	034096	034097	034098	034099
R	81.0	45.0	2.0	032067	032068	032069	032070

L: Left, links, gauche, sinistra, izqierda

R: Right, rechts, droite, destra, derecha

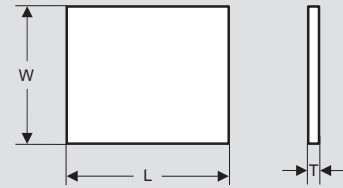
* For use in Leuco-cutterheads only
 * Nur zur Verwendung in Messerköpfen der Firma Leuco
 * Utilisation limitée aux têtes à lames de l'entreprise Leuco
 * Da usare solo su teste portacoltelli della Leuco
 * Sólo para empleo con portacuchillas de la firma Leuco





Blanks for profiling
Blanketts zum Profilieren
Plaquettes à profiler
Placchette da profilare
Piezas en bruto para perfilar

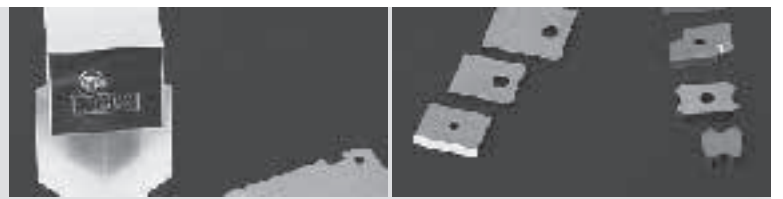
Without bores
Ohne Bohrung
Sans trous
Senza fori
Sin taladros



Thickness ground * Plangeschliffen * Rectifié * Rettificati sui piani * Rectificadas en el grosor

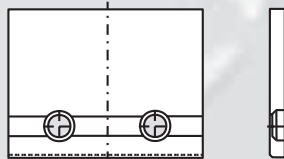
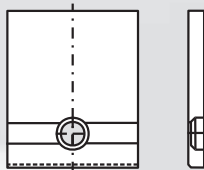
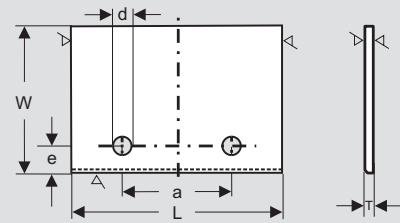
L	W	T	T04F	T03SMG	T10MG	TL15
mm	mm	mm				
30.0	15.0	2.0	018644	018643	018646	031856
40.0	15.0	2.0	018651	018650	018653	018654
40.0	20.0	2.0	018628	031857	018630	018631
40.0	25.0	2.0	018620	031858	018621	031859
40.0	30.0	2.0	018633	018632	031860	018635
40.0	35.0	2.0	018623	018622	018624	031861
48.0	15.0	2.0	018655	031863	018656	031862
48.0	20.0	2.0	018636	031864	018638	018639
48.0	25.0	2.0	018640	018641	018642	031865
50.0	45.0	2.0	018659	018660	018661	031866
50.0	25.4	1.5	018343	031867	031868	031869
60.0	20.0	2.0	018626	031870	031871	031872
60.0	40.0	2.0	018664	018663	018665	031875
80.0	35.0	2.0	018658	031876	031877	031878





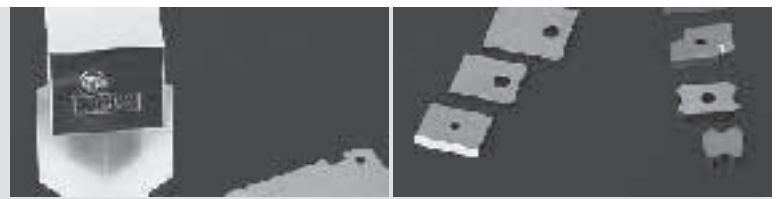
Blanks for profiling
Blanketts zum Profilieren
Plaquettes à profiler
Placchette da profilare
Piezas en bruto para perfilar

For Freud system*



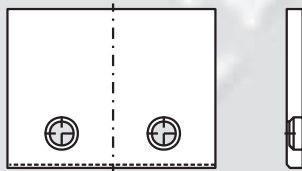
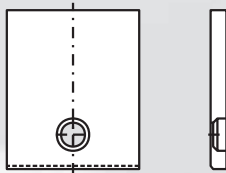
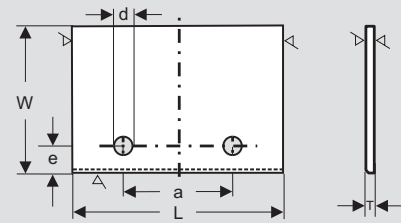
L	W	T	d	a	e	T04F	T03SMG	T10MG	TL15
mm	mm	mm	mm	mm	mm				
20.0	25.0	3.0	4.5		6.5	018786	031879	031880	031881
25.0	25.0	3.0	4.5		6.5	031882	031883	031884	018790
25.0	30.0	3.0	4.5		6.5	031886	031885	031887	031888
25.0	35.0	3.0	4.5		6.5	018798	031889	031890	018801
25.0	40.0	3.0	4.5		6.5	031892	031891	031893	031894
30.0	40.0	3.0	4.5		6.5	031958	031957	031959	031960
35.0	25.0	3.0	4.5		6.5	031896	031895	031897	031898
35.0	30.0	3.0	4.5		6.5	031900	031899	031901	031902
35.0	35.0	3.0	4.5		6.5	018810	031903	031904	031905
45.0	25.0	3.0	4.5	28.0	6.5	031907	031906	031908	031909
45.0	30.0	3.0	4.5	28.0	6.5	031911	031910	031912	031913
45.0	35.0	3.0	4.5	28.0	6.5	031915	031914	031916	031917
55.0	25.0	3.0	4.5	41.0	6.5	031919	031918	031920	031921
55.0	30.0	3.0	4.5	41.0	6.5	031924	031925	031923	031922
55.0	35.0	3.0	4.5	41.0	6.5	031927	031926	031928	031929
55.0	40.0	3.0	4.5	41.0	6.5	031931	031930	031932	031933
65.0	20.0	3.0	4.5	28.0	6.5	031935	031934	031936	031937
65.0	25.0	3.0	4.5	28.0	6.5	031955	031954	018826	031956
70.0	25.0	3.0	4.5	41.0	6.5	031939	031938	031940	031941
80.0	30.0	3.0	4.5	66.0	6.5	031943	031942	031944	031945
80.0	35.0	3.0	4.5	66.0	6.5	031947	031946	031948	031949
40.0	40.0	3.0	4.5		11/11	031951	031950	031952	031953

* For use in Freud-cutterheads only
 * Nur zur Verwendung in Messerköpfen der Firma Freud
 * Utilisation limitée aux têtes à lames de l'entreprise Freud
 * Da usare solo su teste portacoltelli della Freud
 * Sólo para empleo con portacuchillas de la firma Freud



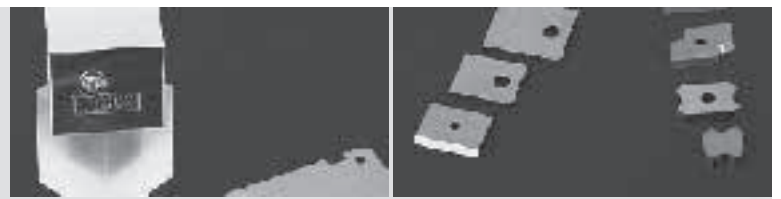
Blanks for profiling
Blanketts zum Profilieren
Plaquettes à profiler
Placchette da profilare
Piezas en bruto para perfilar

For Freud system*



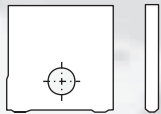
L	W	T	d	a	e	T04F	T03SMG	T10MG	TL15
mm	mm	mm	mm	mm	mm				
20.0	25.0	3.0	4.5		6.5	052171	052172	052173	052174
25.0	25.0	3.0	4.5		6.5	052044	052175	052176	052177
25.0	30.0	3.0	4.5		6.5	052178	052179	052180	052181
25.0	35.0	3.0	4.5		6.5	052182	052183	052184	052185
25.0	40.0	3.0	4.5		6.5	051951	052189	052190	052191
30.0	40.0	3.0	4.5		6.5	052192	052193	052194	052195
35.0	25.0	3.0	4.5		6.5	052196	052197	052198	052199
35.0	30.0	3.0	4.5		6.5	052200	052201	052202	052203
35.0	35.0	3.0	4.5		6.5	052204	052205	052206	052207
45.0	25.0	3.0	4.5	28.0	6.5	052208	052209	052210	052211
45.0	30.0	3.0	4.5	28.0	6.5	052213	052212	052214	052215
45.0	35.0	3.0	4.5	28.0	6.5	052216	052217	052218	052219
55.0	25.0	3.0	4.5	41.0	6.5	052220	052221	052222	052223
55.0	30.0	3.0	4.5	41.0	6.5	051712	052224	052225	052226
55.0	35.0	3.0	4.5	41.0	6.5	052227	052228	052229	052230
55.0	40.0	3.0	4.5	41.0	6.5	052231	052232	052235	052234
65.0	20.0	3.0	4.5	28.0	6.5	052236	052237	052238	052239
65.0	25.0	3.0	4.5	28.0	6.5	052240	052241	052242	052243
70.0	25.0	3.0	4.5	41.0	6.5	052244	052245	052246	052247
80.0	30.0	3.0	4.5	66.0	6.5	052248	052249	052250	051576
85.0	35.0	3.0	4.5	66.0	6.5	052251	052252	052253	052254
40.0	40.0	3.0	4.5		11/11	052255	052256	052257	052258

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 * Nur zur Verwendung in Messerköpfen der Firma Freud
 * Utilisation limitée aux têtes à lames de l'entreprise Freud
 * Da usare solo su teste portacoltelli della Freud
 * Sólo para empleo con portacuchillas de la firma Freud

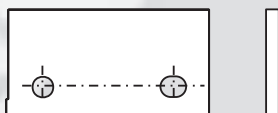


Blanks for profiling
 Blanketts zum Profilieren
 Plaquettes à profiler
 Placchette da profilare
 Piezas en bruto para perfilar

For Leuco ECO-PRO system*



L mm	W mm	T mm	T04F	T03SMG	T10MG	TL15
10.6	20.8	2.0	032288	032343	032344	032345
12.5	20.5	2.0	032346	032385	032386	032387
15.5	20.5	2.0	032347	032390	032456	032495
15.5	25.5	2.0	032352	032393	032457	032496
16.4	20.5	2.0	032353	032406	032458	032497
16.7	25.9	2.0	032354	032408	032459	032498
18.4	18.9	2.0	032355	032409	032460	032499
18.4	25.9	2.0	032356	032410	032461	032500
18.4	36.3	2.0	032357	032412	032462	032501
20.3	20.5	2.0	032358	032421	032463	032502
20.3	25.5	2.0	032359	032423	032464	032503
20.3	30.4	2.0	032360	032425	032465	032504
22.3	25.5	2.0	032361	032433	032466	032505
24.3	20.9	2.0	032362	032434	032467	032506
25.3	25.9	2.0	032363	032435	032468	032507
25.3	35.3	2.0	032364	032436	032469	032508
28.2	25.5	2.0	032365	032437	032470	032509
28.2	35.3	2.0	032366	032438	032471	032511

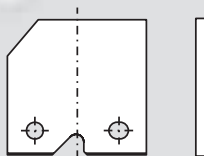
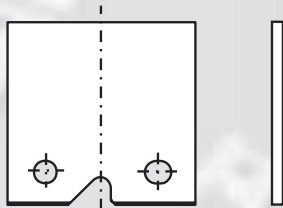


L mm	W mm	T mm	T04F	T03SMG	T10MG	TL15
30.2	25.5	2.0	032348	032349	032350	032351
30.2	30.4	2.0	032367	032439	032478	032523
32.2	22.8	2.0	032368	032440	032479	032524
32.2	35.4	2.0	032369	032441	032480	032525
32.8	26.5	2.0	032370	032442	032481	032526
35.2	26.0	2.0	032371	032443	032482	032527
40.1	20.9	2.0	032372	032444	032483	032528
40.1	30.4	2.0	032373	032445	032484	032529
40.8	36.0	2.0	032374	032446	032485	032530
42.8	31.0	2.0	032375	032447	032486	032531
42.8	36.0	2.0	032376	032448	032487	032532
45.8	36.0	2.0	032377	032449	032488	032533
49.9	20.9	2.0	032378	032450	032489	032534
49.9	33.0	2.0	032379	032451	032490	032535
49.9	40.2	2.0	032380	032452	032491	032536
59.6	35.4	2.0	032381	032453	032492	032537
60.6	25.8	2.0	032382	032454	032493	032538
80.6	35.8	2.0	032384	032455	032494	032539

* For use in Leuco-cutterheads only
 * Nur zur Verwendung in Messerköpfen der Firma Leuco
 * Utilisation limitée aux têtes à lames de l'entreprise Leuco
 * Da usare solo su teste portacoltelli della Leuco
 * Sólo para empleo con portacuchillas de la firma Leuco

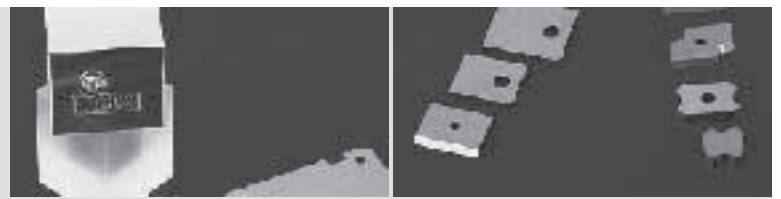
Blanks for profiling
 Blanketts zum Profilieren
 Plaquettes à profiler
 Placchette da profilare
 Piezas en bruto para perfilar

For Oertli system*

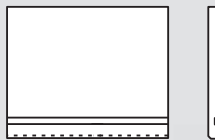
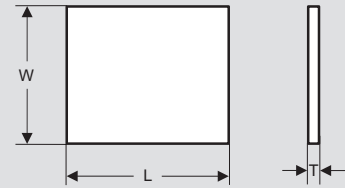


L	W	T	T04F	T10MG
mm	mm	mm		
20.0	20.0	2.0	032078	032080
20.0	24.0	2.0	022563	022565
20.0	29.0	2.0	022567	022568
20.0	34.0	2.0	032083	022571
25.0	19.0	2.0	032085	032086
25.0	24.0	2.0	022577	022578
25.0	29.0	2.0	022581	022583
25.0	34.0	2.0	022558	022559
30.0	19.0	2.0	032098	032100
30.0	24.0	2.0	022586	032093
30.0	29.0	2.0	032094	032095
30.0	34.0	2.0	022611	022612
35.0	24.0	2.0	022588	022589
35.0	29.0	2.0	022592	022594
35.0	34.0	2.0	032103	032104
45.0	19.0	2.0	022575	022576
45.0	24.0	2.0	022596	022597
45.0	29.0	2.0	022600	022602
45.0	33.0	2.0	032108	022604
45.0	34.0	2.0	032110	032111
55.0	19.0	2.0	032116	032118
55.0	22.0	2.0	032113	035199
55.0	27.5	2.0	032119	032120
55.0	29.6	2.0	032122	032123
55.0	33.0	2.0	022605	022606
65.0	22.0	2.0	032125	032126
65.0	27.5	2.0	032128	032130
65.0	33.0	2.0	022609	032131
80.0	22.0	2.0	032133	032134
80.0	27.5	2.0	032136	032137
80.0	33.0	2.0	032141	032140
25.0	29.0-50°	2.0	022617	022620
25.0	29.0-70°	2.0	022624	022628
35.0	29.0-50°	2.0	032142	032143
35.0	29.0-70°	2.0	032145	032146

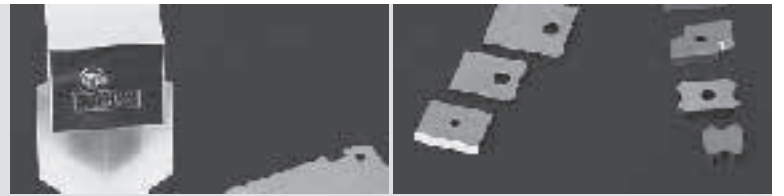
* For use in Oertli-cutterheads only
 * Nur zur Verwendung in Messerköpfen der Firma Oertli
 * Utilisation limitée aux têtes à lames de l'entreprise Oertli
 * Da usare solo su teste portacoltelli della Oertli
 * Sólo para empleo con portacuchillas de la firma Oertli



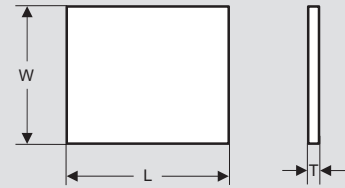
Knives with crossgrove and microfinish
 Blanketts mit Quernut und Microfinish
 Plaquettes avec rainure transversal et microfinish
 Placchette con scanalatura e microfinish
 Cuchillas con ranura transversal y microfinish



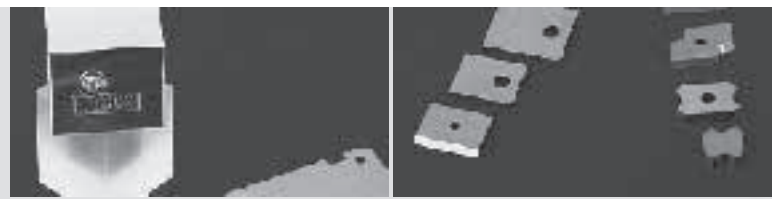
L	W	T	T04F	T08SMG	T10MG	TL15
mm	mm	mm				
20.5	16.5	2.0	037193	022937	038523	041097
20.5	22.5	2.0	037996	022941	022939	041098
20.5	25.5	2.0	041099	022944	022943	041100
20.5	27.9	2.0	041102	022947	022946	041101
20.5	30.6	2.0	041103	022950	022949	041104
20.5	34.0	2.0	041108	022953	041110	041109
25.5	25.5	2.0	041204	034517	041206	041205
25.5	27.9	2.0	041209	039427	041207	041208
25.5	30.6	2.0	041210	039425	041212	041211
25.5	34.0	2.0	041217	035621	041219	041218
30.5	22.5	2.0	036089	022958	022957	041111
30.5	25.5	2.0	041112	035435	022960	041113
30.5	27.9	2.0	041121	022963	022962	041118
30.5	30.6	2.0	041122	022966	022965	041123
30.5	34.0	2.0	041127	022969	041128	039072
35.5	22.5	2.0	041522	041523	041524	041525
35.5	25.5	2.0	041526	023023	041527	041528
35.5	32.5	2.0	041529	023025	041530	023024
40.25	16.5	2.0	040673	022971	041130	041129
40.25	22.5	2.0	041131	022974	022973	041132
40.25	25.5	2.0	041133	022977	022976	041134
40.25	27.9	2.0	041135	022981	022979	041136
40.25	30.6	2.0	041138	022984	022983	041137
40.25	32.6	2.0	041139	022987	022986	041140
40.25	34.0	2.0	039717	041143	041142	041141
50.25	22.5	2.0	039716	022991	022990	041144
50.25	25.5	2.0	041145	022994	022993	041146
50.25	27.9	2.0	040864	022997	022996	041147
50.25	30.6	2.0	041149	023000	022999	041148
50.25	32.6	2.0	041150	023003	023002	041151
50.25	34.0	2.0	041152	023004	041153	041154
60.25	22.5	2.0	041158	023008	023007	040666
60.25	25.5	2.0	037638	041159	023010	041160
60.25	27.9	2.0	036846	023013	023012	041161
60.25	30.6	2.0	041162	041164	023015	041163
60.25	32.6	2.0	041166	041165	023017	041167
80.25	16.5	2.0	041172	023022	041173	041174



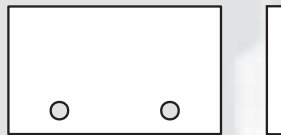
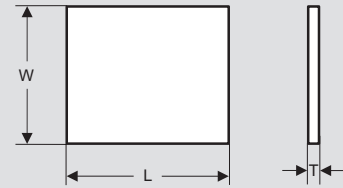
Strips with crossgroove and microfinish
Leisten mit Quernut und Microfinish
Barres avec rainure transversal et microfinish
Placchette con scanalatura e microfinish
Placas con ranura transversal y microfinish



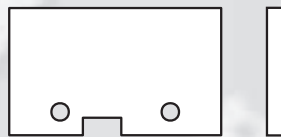
L	W	T	T04F	T08SMG	T10MG	TL15
mm	mm	mm				
165.0	16.5	2.0	032154	032153	041225	032155
165.0	22.5	2.0	032162	023100	041226	032156
165.0	25.5	2.0	032163	023102	041227	032157
165.0	27.9	2.0	032164	023104	041228	032158
165.0	30.6	2.0	032165	023106	041229	032159
165.0	32.6	2.0	032166	023108	041230	032160
165.0	34.0	2.0	032167	032152	041231	032161



Backing plates & packing
Stützplatten & Verpackungen
Supports & boîtes
Supporti & imballi
Placas de soporte & embalaje



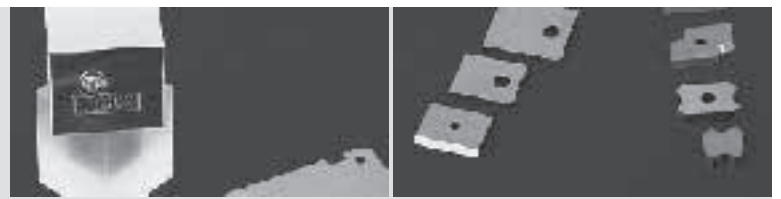
L	W	T	L	W	T	Prod.-No.
mm	mm	mm	for Blanks			
38.0	27.0	4.0	40.0	30.0	2.0	015520
48.0	45.0	4.0	50.0	45.0	2.0	015932
58.0	32.0	4.0	60.0	35.0	2.0	016100
58.0	38.0	4.0	60.0	40.0	2.0	016162



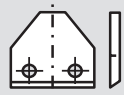
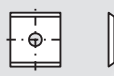
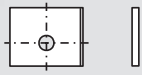
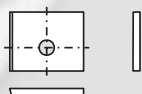
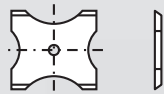
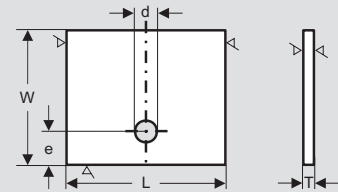
L	W	T	L	W	T	Prod.-No.
mm	mm	mm	for Superprofiler*			
40.0	26.0	4.0	41.0	28.0	1.5	015705
50.0	33.0	4.0	51.0	35.0	1.5	015974
60.0	28.0	4.0	61.0	31.0	1.5	016212
60.0	45.0	6.0	61.0	45.0	2.0	016237
80.0	43.0	6.0	81.0	45.0	2.0	016335



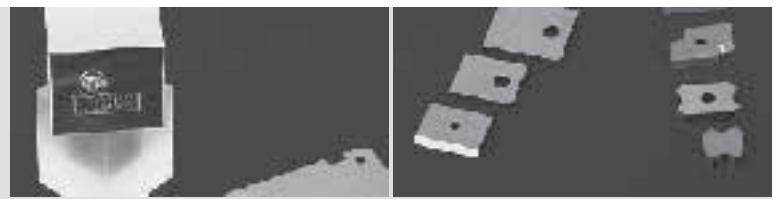
L	W	T	For insert size Für Wendepplatten Größe Pour plaquettes Per inserti Para cuchillas	Prod.-No.
mm	mm	mm		
20.0	48.0	18.0	7.5 x 12.0 x 1.5 - 15.0 x 15.0 x 2.0	030565
38.0	48.0	18.0	20.0 x 12.0 x 1.5 - 30.0 x 12.0 x 1.5	030561
70.0	47.0	18.0	40.0 x 12.0 x 1.5 - 60.0 x 12.0 x 1.5	030569
88.0	37.0	10.0	Mini, 75.5 x 5.5 x 1.1 - 82.0 x 5.5 x 1.1	030564
48.0	33.0	30.0	Radius-Blanks, 29.0 x 26.0 x 2.0	030566
55.0	48.0	37.0	Blanks, 50.0 x 30.0 x 2.0	030568
66.0	50.0	55.0	Blanks, 60.0 x 45.0 x 2.0	030567



Preprofiled Blanks
Vorprofilerte Blanketts
Plaquettes préprofilées
Placchette presagomate
Piezas en bruto preperfiladas



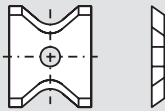
L	W	T	d	e	R	T04F	T03SMG	T10MG
mm	mm	mm	mm	mm	mm			
13.0	16.0	2.0	3.0		2-4	015176	033175	033176
13.0	16.0	2.0	4.0		2-4	015177	033178	033179
20.0	21.0	2.0	3.0		5-8	015180	033181	033182
20.0	21.0	2.0	4.0		5-8	015181	033184	033185
26.0	24.0	2.0	3.0		9-13	015183	033187	033188
26.0	24.0	2.0	4.0		9-13	015185	033190	033191
12.0	14.5	2.0	4.0	6.0		017731	034072	034073
12.0	18.0	2.0	4.0	6.0		019815	034075	034076
12.0	18.0	2.0	5.0	5.5		037116	040950	040952
19.6	15.5	2.0	4.0	6.0		035156	040942	040947
19.6	15.5	2.0	4.0	6.0		035157	040943	040945
13.0	14.0	1.5	3.2		2-4	015189	033193	033194
20.0	16.0	2.0	3.2		5-8	015191	033203	033204
26.0	18.0	2.0	3.2		9-13	015193	033206	033207
30.0	20.0	2.0	3.2		14-16	015195	033213	033214
16.0	17.5	2.0	3.0	5.0	2-6	017550	034059	034060
16.0	17.5	2.0	3.5	5.0	2-6	015235	033227	033228
16.0	17.5	2.0	4.0	5.0	2-6	015242	033233	033234
16.0	17.5	2.0	4.4	5.4	2-6	051310	051311	051341
20.0	17.5	2.0	4.0	6.0	2-8	015239	033236	033237
20.0	20.5	2.0	4.0	6.3	2-6	015245	033239	033240
16.0	17.5	2.0	4.4	5.4	2-6	015243	033230	033231
24.0	20.4	2.0	4.2	6.3	2-6	015247		
15.0	15.0	2.0	4.0	6.0		022306	034081	034082
16.0	14.6	2.0	5.0	6.0		046698		



Profiled standard blanks
Profilierte Standardblanketts
Plaquettes standard profilées
Placchette profilate standard
Piezas en bruto perfiladas standard

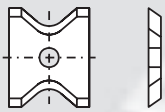


For Leuco system*



L	W	T	d	R	T04F	T03SMG	T10MG
mm	mm	mm	mm	mm			
13.0	16.0	2.0	4.0	2.0	032836	032876	032904
13.0	16.0	2.0	4.0	3.0	032837	032877	032909
13.0	16.0	2.0	4.0	4.0	032838	032878	032908
20.0	21.0	2.0	4.0	5.0	032839	032911	032910
20.0	21.0	2.0	4.0	6.0	032840	032879	032913
20.0	21.0	2.0	4.0	7.0	032841	032880	032914
20.0	21.0	2.0	4.0	8.0	032842	032881	032915
26.0	24.0	2.0	4.0	9.0	032843	032882	032919
26.0	24.0	2.0	4.0	10.0	032844	032883	032920
26.0	24.0	2.0	4.0	11.0	032845	032884	032921
26.0	24.0	2.0	4.0	12.0	032846	032885	032922
26.0	24.0	2.0	4.0	13.0	032847	032886	032923
30.0	25.0	2.0	4.0	14.0	032848	033782	033783
30.0	25.0	2.0	4.0	15.0	032849	033785	033786
30.0	25.0	2.0	4.0	16.0	032850	033788	033789

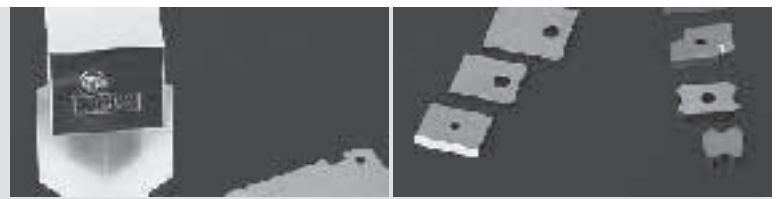
For Howema system*



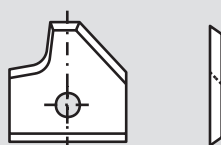
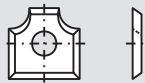
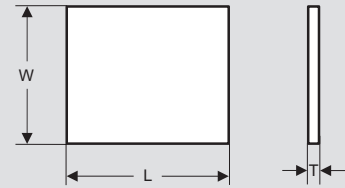
L	W	T	d	R	T04F	T03SMG	T10MG
mm	mm	mm	mm	mm			
13.0	14.0	1.5	3.2	2.0	016376	033809	033810
13.0	14.0	1.5	3.2	3.0	016377	033812	033813
13.0	14.0	1.5	3.2	4.0	016378	033815	033816
20.0	16.0	2.0	3.2	5.0	016379	033818	033819
20.0	16.0	2.0	3.2	6.0	016380	033821	033822
20.0	16.0	2.0	3.2	7.0	016381	033824	033825
20.0	16.0	2.0	3.2	8.0	016382	033827	033828
26.0	18.0	2.0	3.2	9.0	016383	033830	033831
26.0	18.0	2.0	3.2	10.0	016384	033833	033834
26.0	18.0	2.0	3.2	11.0	016385	033836	033837
26.0	18.0	2.0	3.2	12.0	016386	033839	033840
26.0	18.0	2.0	3.2	12.5	016391	033867	033868
30.0	20.0	2.0	3.2	13.0	016387	033842	033843
30.0	20.0	2.0	3.2	14.0	016388	033845	033846
30.0	20.0	2.0	3.2	15.0	016389	033848	033849
30.0	20.0	2.0	3.2	16.0	016390	033851	033852
40.0	28.0	2.0	3.2	17.0	016371	033854	033855
40.0	28.0	2.0	3.2	18.0	016372	033857	033858
40.0	28.0	2.0	3.2	19.0	016373	033860	033861
40.0	28.0	2.0	3.2	20.0	016374	033863	033864

* For use in Leuco/Howema-cutterheads only
 * Nur zur Verwendung in Messerköpfen der Firma Leuco bzw. Howema
 * Utilisation limitée aux têtes à lames de l'entreprises Leuco et Howema
 * Da usare solo su teste portacoltelli della Leuco - Howema
 * Sólo para empleo con portacuchillas de la firma Leuco/Howema

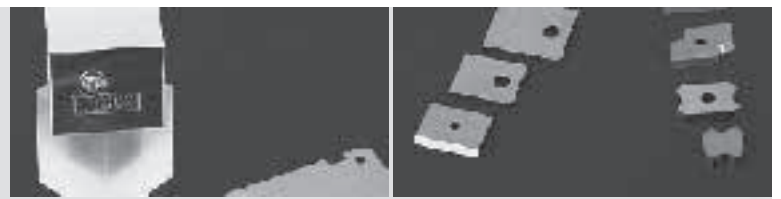




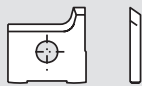
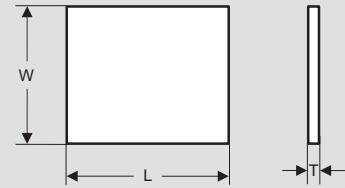
Profiled standard blanks
Profilierte Standardblanketts
Plaquettes standard profilées
Placchette profilate standard
Piezas en bruto perfiladas standard



L	W	T	d	R	T04F	T03SMG	T10MG
mm	mm	mm	mm	mm			
12.0	12.0	1.5	4.0	2.0	016426	033022	033024
12.0	12.0	1.5	4.0	3.0	016427	033021	033025
12.0	12.0	1.5	4.0	4.0	016428	033023	033026
12.0	13.0	2.0	4.0	2.0	020990	033877	033878
12.0	13.0	2.0	4.0	2.5	022185	033874	033875
12.0	13.0	2.0	4.0	3.0	020853	033871	033872
16.0	14.0	2.0	4.0	3.0	039045		
16.0	17.5	2.0	3.0	2.0	016515	033880	033881
16.0	17.5	2.0	3.0	3.0	016516	033883	033884
16.0	17.5	2.0	3.0	4.0	016518	033886	033887
16.0	17.5	2.0	3.0	5.0	016519	033889	033890
16.0	17.5	2.0	3.5	2.0	016469	033892	033893
16.0	17.5	2.0	3.5	3.0	016470	033895	033896
16.0	17.5	2.0	3.5	4.0	016472	033898	033899
16.0	17.5	2.0	3.5	5.0	016473	033901	033902
16.0	17.5	2.0	3.5	6.0	016474	033904	033905
16.0	17.5	2.0	4.0	2.0	016477	032968	032973
16.0	17.5	2.0	4.0	3.0	016478	032969	032974
16.0	17.5	2.0	4.0	4.0	016479	032970	032975
16.0	17.5	2.0	4.0	5.0	016480	032971	032976
16.0	17.5	2.0	4.4	2.0	016510	033907	033908
16.0	17.5	2.0	4.4	3.0	016511	033910	033911
16.0	17.5	2.0	4.4	4.0	016512	033913	033914
16.0	17.5	2.0	4.4	5.0	016513	033916	033917
24.0	20.0	2.0	4.4	6.0	033919	033924	033925
24.0	20.0	2.0	4.4	7.0	033920	033927	033928
24.0	20.0	2.0	4.4	8.0	033921	033930	033931
24.0	20.0	2.0	4.4	9.0	033922	033933	033934
24.0	20.0	2.0	4.4	10.0	033923	033936	033937
20.0	20.5	2.0	4.0	2.0	016495	032991	032996
20.0	20.5	2.0	4.0	3.0	016496	032992	032997
20.0	20.5	2.0	4.0	4.0	016497	032993	032998
20.0	20.5	2.0	4.0	5.0	016498	032994	032999
20.0	20.5	2.0	4.0	6.0	016499	032995	033000
20.0	20.5	2.0	4.0	2.0	016500	033007	033011
20.0	20.5	2.0	4.0	3.0	016501	033006	033012
20.0	20.5	2.0	4.0	4.0	016502	033008	033013
20.0	20.5	2.0	4.0	5.0	016503	033009	033014
20.0	20.5	2.0	4.0	6.0	016504	033010	033015



Profiled standard blanks
Profilierte Standardblanketts
Plaquettes standard profilées
Placchette profilate standard
Piezas en bruto perfiladas standard



IMA



IMA

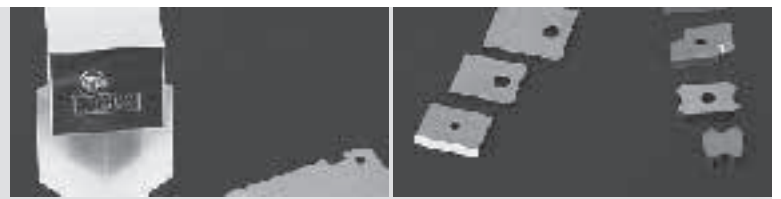
Quadromat

MFA

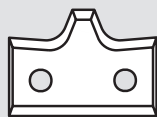
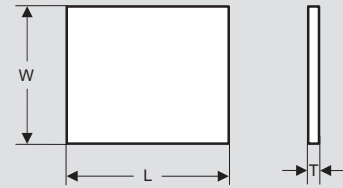
Quadromat

MFA

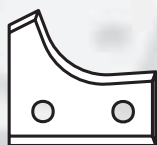
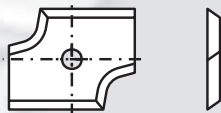
L	W	T	d	R	T04F	T03SMG	T10MG
mm	mm	mm	mm	mm			
15.0	14.5	2.0	4.0	2.0	022305	033941	033942
15.0	14.5	2.0	4.0	2.5	033939	033947	033948
15.0	14.5	2.0	4.0	3.0	022308	033953	033954
16.1	14.0	2.0	5.0	2.0	046693		
16.1	14.0	2.0	5.0	3.0	049986		
15.0	14.5	2.0	4.0	2.0	022307	033944	033945
15.0	14.5	2.0	4.0	2.5	033940	033950	033951
15.0	14.5	2.0	4.0	3.0	022309	033956	033957
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	033973	033974
19.6	15.2	2.0	4.0	2.0	033963	033997	033998
12.0	14.5	2.0	4.0	2.5	020397	034109	034110
12.0	14.5	2.0	4.0	3.0	020620	034100	034101
19.6	15.2	2.0	4.0	3.0	033967	034003	034004
12.0	14.5	2.0	4.0	2.0	021045	033981	033982
19.6	15.2	2.0	4.0	2.0	033966	034000	034001
12.0	14.5	2.0	4.0	2.5	020396	034106	034107
12.0	14.5	2.0	4.0	3.0	020619	034103	034104
19.6	15.2	2.0	4.0	3.0	033968	034006	034007
12.0	18.0	2.0	4.0	2.0	033969	034009	034010
12.0	18.0	2.0	4.0	3.0	033970	034015	034017
12.0	18.0	2.0	4.0	2.0	034024	034037	034038
12.0	18.0	2.0	4.0	3.0	034031	034040	034041
12.0	18.0	2.0	4.0	2.0	033971	034012	034013
12.0	18.0	2.0	4.0	3.0	033972	034019	034020
12.0	18.0	2.0	4.0	2.0	034025	041378	041379
12.0	18.0	2.0	4.0	3.0	034032	040440	041381

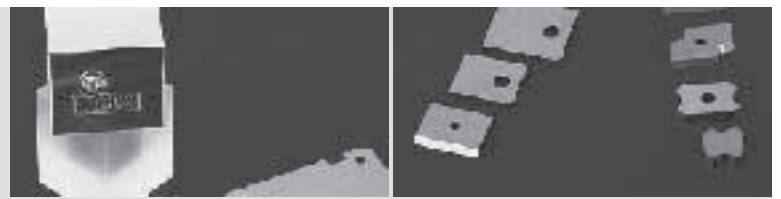


Profiled standard blanks
Profilierte Standardblanketts
Plaquettes standard profilées
Placchette profilate standard
Piezas en bruto perfiladas standard

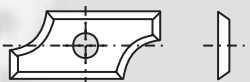
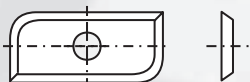
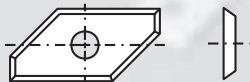
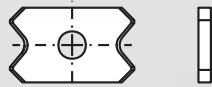
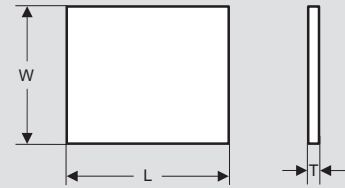


L	W	T	d	a	R	T04F	T03SMG	T10MG
mm	mm	mm	mm	mm	mm			
20.8	15.0	2.0	4.0	12.0	2.0	016429	033565	033566
20.8	15.0	2.0	4.0	12.0	3.0	016430	033568	033569
20.8	15.0	2.0	4.0	12.0	4.0	016431	033571	033572
30.0	17.0	2.0	4.0	20.0	5.0	016432	033574	033575
30.0	17.0	2.0	4.0	20.0	6.0	016433	033577	033578
30.0	17.0	2.0	4.0	20.0	7.0	016434	033580	033581
30.0	17.0	2.0	4.0	20.0	8.0	016435	033583	033584
30.5	16.5	2.0	4.0	20.0	5.0	016452	033595	033596
30.5	16.5	2.0	4.0	20.0	6.0	016453	033598	033599
30.5	16.5	2.0	4.0	20.0	7.0	016454	033601	033602
30.5	16.5	2.0	4.0	20.0	8.0	016455	033604	033605
20.0	16.0	2.0	3.0		3.0	033311	033607	033608
30.0	14.0	2.0	4.0		2.0	033312	033610	033611
30.0	14.0	2.0	4.0		2.5	033313	033613	033614
30.0	14.0	2.0	4.0		3.0	033314	033616	033617
20.0	16.0	2.0	3.0		3.0	033315	033619	033620
30.0	14.0	2.0	4.0		2.0	033316	033622	033623
30.0	14.0	2.0	4.0		2.5	033317	033625	033626
30.0	14.0	2.0	4.0		3.0	033318	033628	033629
12.0	12.0	1.5	4.0		45°	033319	033632	033633
16.0	17.5	2.0	4.0		45°	032964	032965	032966
16.0	17.5	2.0	4.4		45°	033324	041057	041058
16.0	17.5	2.0	3.5		45°	015237	034112	034113
21.8	19.5	2.0	3.0	12.0	10.0	033670	033674	033675
21.8	19.5	2.0	3.0	12.0	12.0	033671	033677	033678
21.5	20.0	2.0	3.0	12.0	9.0	016445	033657	033658
21.5	20.0	2.0	3.0	12.0	10.0	016446	033660	033661
21.5	20.0	2.0	3.0	12.0	11.0	016447	033663	033664
21.5	20.0	2.0	3.0	12.0	12.0	016448	033666	033667
21.8	19.5	2.0	3.0	12.0	10.0	033672	033680	033681
21.8	19.5	2.0	3.0	12.0	12.0	033673	033685	033686
21.5	20.0	2.0	3.0	12.0	9.0	016436	033645	033646
21.5	20.0	2.0	3.0	12.0	10.0	016437	033648	033649
21.5	20.0	2.0	3.0	12.0	11.0	016438	033651	033652
21.5	20.0	2.0	3.0	12.0	12.0	016439	033654	033655

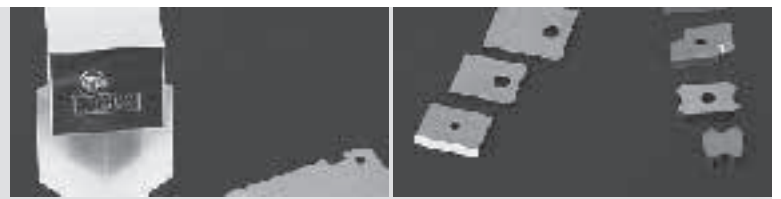




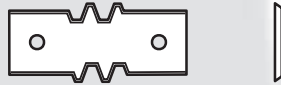
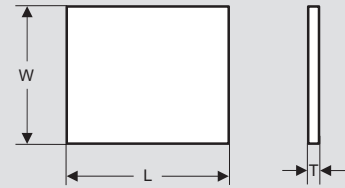
Profiled standard blanks
Profilierte Standardblanketts
Plaquettes standard profilées
Placchette profilate standard
Piezas en bruto perfiladas standard



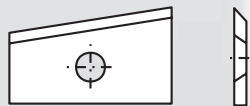
L	W	T	d	R	A°	T04F	T03SMG	T06MF
mm	mm	mm	mm	mm				
20.0	12.0	2.0	4.0	1.0	6°	032984	033031	
20.0	12.0	2.0	4.0	1.0	15°	050309	050310	
20.0	12.0	2.0	4.0	2.0	6°	016419	033033	
20.0	12.0	2.0	4.0	2.0	15°	050311	050312	
20.0	12.0	2.0	4.0	3.0	6°	016420	033034	
20.0	12.0	2.0	4.0	3.0	15°	050313	050314	
20.0	12.0	2.0	4.0	4.0	6°	016421	033043	
20.0	12.0	2.0	4.0	5.0	6°	016422	033042	
20.0	11.5	2.0	4.5	1.5		050088		
20.0	11.5	2.0	4.5	2.0		050089		
20.0	11.5	2.0	4.5	2.5		050090		
20.0	11.5	2.0	4.5	3.0		050091		
12.7	12.7	3.2		2.0				035041
12.7	12.7	3.2		3.0				037922
15.5	15.2	1.5	4.6	3.0		021377		
19.5	9.0	1.5	4.0	5x45°		033086	033118	
19.5	12.0	1.5	4.0	5x45°		034228	034229	
19.5	9.0	1.5	4.0	5.0		033090	033128	
19.5	12.0	1.5	4.0	5.0		034232	034233	
19.5	9.0	1.5	4.0	2.0		033117	033142	
19.5	9.0	1.5	4.0	3.0		033097	033146	
19.5	9.0	1.5	4.0	4.0		033098	033149	
19.5	9.0	1.5	4.0	5.0		033099	033152	
19.5	12.0	1.5	4.0	2.0		034236	034240	
19.5	12.0	1.5	4.0	3.0		034237	034243	
19.5	12.0	1.5	4.0	4.0		034238	034246	
19.5	12.0	1.5	4.0	5.0		034239	034249	
39.5	12.0	1.5	4.0			033400	033401	



Profiled standard blanks
Profilierte Standardblanketts
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Piezas en bruto perfiladas standard



L mm	W mm	T mm	d mm	a mm	R mm	T04F
50.0	21.6	2.0	4.1	26.0		035810
30.0	22.5	3.0				020272
55.0	25.0	3.0				020502
30.0	22.5	3.0				020273
55.0	25.0	3.0				020503



Oertli System*

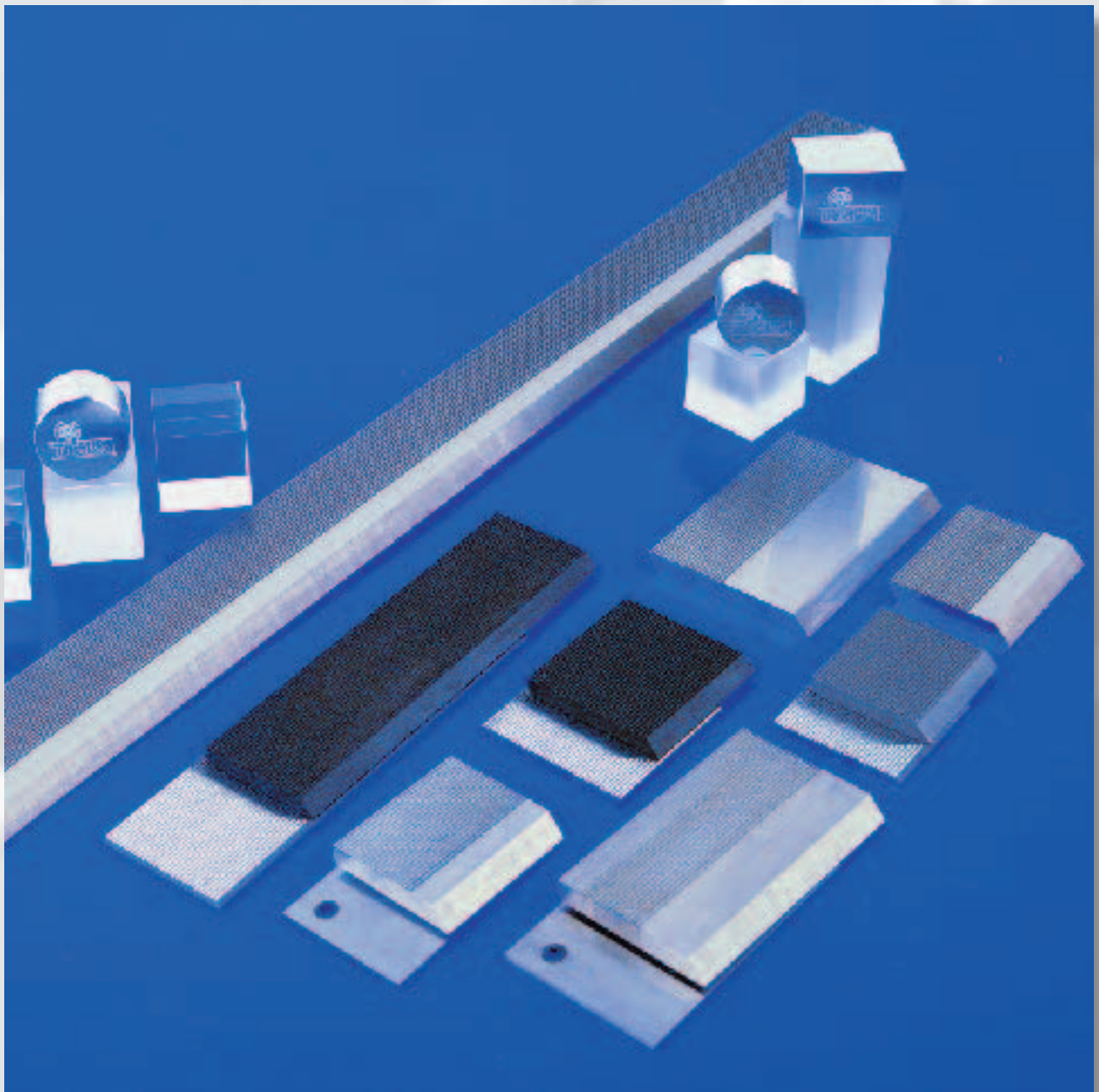


L mm	W mm	T mm	Type	T04F	T10MG
20.0	13.5	2.0	TW32-R2	033429	033430
20.0	13.5	2.0	TW32-R3	033427	033428
20.0	13.5	2.0	TW32-R4	033431	033432
20.0	13.5	2.0	TW32-R5	033433	033434
20.0	13.5	2.0	TW32-R6	033435	033436
29.0	16.5	2.5	TW32-R7	033437	033438
29.0	16.5	2.5	TW32-R8	033439	033440
29.0	16.5	2.5	TW32-R9	033441	033442
29.0	16.5	2.5	TW32-R10	033443	033444
40.0	21.0	2.5	TW32-R11	033445	033446
40.0	21.0	2.5	TW32-R11.5	033447	033448
40.0	21.0	2.5	TW32-R12	033449	033450
40.0	21.0	2.5	TW32-R13	033451	033452
40.0	21.0	2.5	TW32-R14	033453	033454
40.0	21.0	2.5	TW32-R15	033455	033456

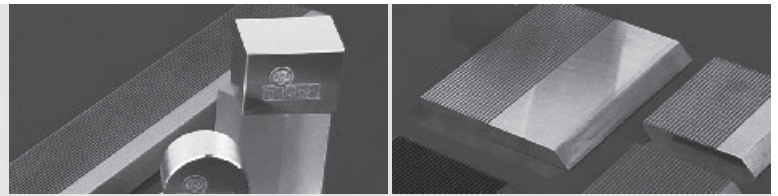
* For use in Oertli-cutterheads only
 * Nur zur Verwendung in Messerköpfen der Firma Oertli
 * Utilisation limitée aux têtes à lames de l'entreprise Oertli
 * Da usare solo su teste portacoltelli della Oertli
 * Sólo para empleo con portacuchillas de la firma Oertli



Knives for back corrugated cutterheads
Messer für rückenverzahnte Messerköpfe
Couteaux pour outils crantés
Coltelli per teste con rigatura
Placas para fresas dentadas



TIGRA SuperPac®



The economic system for back corrugated cutterheads

Good value precision system for significant increase of knife-lifetime in back corrugated cutterheads

It consists of:

Carbide blank, multiple moveable and regrindable - steel backing plate with precision positioning.

TIGRA SuperPac can be used in all cutterheads with 60° back corrugation.

Your advantages with TIGRA SuperPac

Long lifetime

Submicron-grades help you to achieve the longest lifetimes in wood and plastic applications. TIGRA SuperPac is available in 4 tungsten carbide grades to satisfy all your needs: mixed - board/MDF - wood.

High security

TIGRA SuperPac can be used **up to 12000 rpm**, if the cutterhead is designed for this speed. This is possible due to enhanced security of our deep corrugation.

Highest precision

The positioning in the accurate corrugation results in highest precision.

Best surface qualities

Accurate positioning and submicron grades result in the best surface of the material. Especially recommended: TL15 with clearance angles like HSS and Stellite.

Profiling and regrinding

Multiple regrindings are possible and - due to the positioning system - only necessary on the carbide blank.

High price-performance-ratio

Best carbide grades, low prices and multiple regrindings guarantee a high economic viability.

Das wirtschaftliche System für rückenverzahnte Messerköpfe

Preiswertes Präzisionssystem zur extremen Verbesserung von Messer-Standzeiten in rückenverzahnten Messerköpfen.

Es besteht aus:

Hartmetall-Blankett, mehrfach versetzbar und nachschleifbar. Stahl-Stützplatte mit Präzisionspositionierung.

TIGRA SuperPac ist in allen Messerköpfen mit 60° Rückenverzahnung einsetzbar.

Ihre Vorteile mit TIGRA SuperPac

Hohe Standzeiten

Submicron-Sorten garantieren für die besten Standzeiten in der Holz- und Kunststoffbearbeitung. TIGRA SuperPac erhalten Sie in vier HM-Sorten für all Ihre verschiedenen Anwendungen: Für gemischte Einsätze - für Spanplatte/ MDF - für Vollholz.

Hohe Sicherheit

Mit TIGRA SuperPac sind **bis zu 12000 U/min** möglich, sofern der Messerkopf dies zulässt. Eine besonders tiefe Verzahnung erhöht die Sicherheit entscheidend.

Höchste Präzision

Durch Positionierung in einer hochgenauen Rückenverzahnung erreicht das System höchste Präzision.

Beste Oberflächengüten

Präzisionspositionierung und Submicron-Sorten bilden eine ideale Voraussetzung für beste Oberflächengüte des bearbeiteten Werkstoffes. Besonders zu empfehlen: TL15 mit Winkeln wie HSS und Stellit.

Profilieren und Nachschärfen

Vielfaches Nachschärfen ist möglich und durch das Verstellsystem nur beim Hartmetall-Blankett nötig.

Höchste Wirtschaftlichkeit

Bestmögliche HM-Sorten, Polierschliff, günstige Preise und häufiges Nachschleifen garantieren für höchste Wirtschaftlichkeit.

Le système économique pour les porte-outils à fers crantés

Système de précision économique améliorant considérablement la durée de vie des fers de porte-outils à fers crantés.

Composition:

Ébauche au carbure, utilisable et réaffûtable plusieurs fois. Fer de soutien en acier avec positionnement de précision.

TIGRA SuperPac peut être utilisé sur tous les porte-outils à crantage de 60°.

Vos avantages avec TIGRA SuperPac

Longue tenue de coupe

Les qualités Submicron offrent les meilleures tenues de coupe dans l'usinage du bois et des matières plastique.

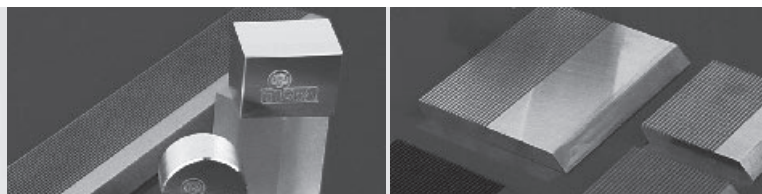
TIGRA SuperPac vous est proposé en quatre types de carbures pour toutes vos applications:

utilisations combinées, panneaux de particules/MDF, bois massif.

Haute sécurité

TIGRA SuperPac permet des vitesses **jusqu'à 12000 t/mim**, sous réserve que le porte-outils le tolère. Une denture particulièrement profonde augmente la sécurité de manière décisive.

TIGRA SuperPac®



Grande précision

Le système offre une précision maximale grâce à un positionnement dans un crantage de haute précision.

Qualité de surface optimale

Le positionnement de précision et les qualités Submicron constituent la condition idéale pour l'obtention d'une surface parfaite du matériau usiné. Il faut notamment recommander la nuance TL15 avec géométrie de coupe comme l'acier rapide et le stellite.

Profilage et réaffûtage

Le système de positionnement permet de très nombreux affûtages de la plaquette carbure, le fer de soutien ne se reprofilant pas.

Rentabilité maximale

Les meilleurs types de carbures, le polissage/rodage, les prix avantageux et la grande zone de réaffûtage

Il sistema economicamente conveniente per le teste di fresatura a zigrinatura posteriore

Sistema di precisione a prezzi contenuti che consente un significativo miglioramento della durata dei taglienti nelle teste di fresatura a zigrinatura posteriore.

Il sistema è costituito da:

Placchetta metallica, ripetutamente riposizionabile e riaffilabile. Piastrina di supporto in acciaio con preposizionamento di precisione. *In tutte le teste con dentatura posteriore a 60° è possibile utilizzare TIGRA SuperPac.*

I vantaggi di TIGRA SuperPac

Lunga durata

I tipi Submicron garantiscono ottima durata nella lavorazione di legno e plastica. TIGRA SuperPac è disponibile in quattro versioni di metallo duro per le applicazioni più diverse: per applicazioni miste, per truciolare/MDF, per legno masello.

Elevata sicurezza

TIGRA SuperPac permette **velocità fino a 12000 giri/min**, purché esse siano compatibili con la testa di fresatura. La dentatura particolarmente profonda aumenta significativamente il livello di sicurezza.

Altissima precisione

Il posizionamento mediante la dentatura posteriore di elevata precisione garantisce al sistema prestazioni ottimali in termini di precisione.

Ottimo livello di finitura superficiale

I tipi Submicron unitamente alla precisione di posizionamento costituiscono il presupposto ideale per l'ottenimento di un elevato grado di finitura superficiale del materiale lavorato. Particolarmente raccomandabile: TL15 con angoli uguali all'HSS e alla Stellite.

Profilatura e riaffilatura

Sono possibili ripetute che, grazie al sistema di spostamento, sono necessarie solo per le placchette in metallo duro.

Ottima convenienza economica

I migliori tipi possibili in metallo duro, il livello di rettifica a specchio, i prezzi contenuti e la possibilità di numerose riaffilature assicurano un'elevata convenienza economica.

El sistema económico para cabezales de cuchillas de lomo dentado

El sistema de precisión económico que mejora extremadamente el tiempo de funcionamiento de las cuchillas puestas en cabezales de cuchillas de lomo dentado.

Consiste en:

Una placa de metal duro que puede alterarse varias veces y reafilarse. Una placa de soporte de acero con posicionamiento preciso. *El TIGRA SuperPac puede aplicarse en todos los cabezales de cuchillas que tienen una dentadura de lomo de 60°.*

Sus ventajas con TIGRA SuperPac

Tiempos de funcionamiento altos

Las calidades Submicron garantizan los mejores tiempos de funcionamiento para el trabajo de madera y de plástico. El TIGRA SuperPac es disponible en cuatro calidades de metal duro para cualquiera de sus aplicaciones varias: Para las aplicaciones mixtas - para los tableros de virutas/MDF - para la madera maciza.

Alta Seguridad

Con TIGRA SuperPac se permiten **hasta 12000 revoluciones por minuto** según cabezal de cuchillas. Un dentado especialmente profundo aumenta la seguridad considerablemente.

Alta Precisión

El sistema consigue una alta precisión mediante el posicionamiento de un dentado de lomo exacto.

Primera calidad de la superficie

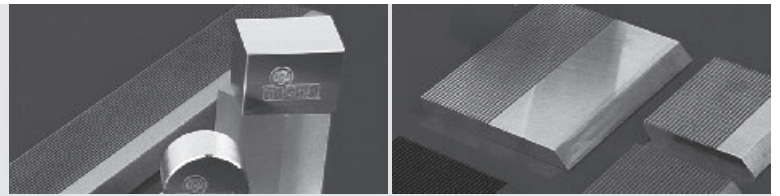
El posicionamiento de precisión y las calidades Submicron ofrecen una condición ideal para la mejor calidad de la superficie del material trabajado. Se recomienda especialmente: TL15 con ángulos como HSS y Stellite.

Perfilar y reafilar

Es posible de reafilar muchas veces y, dado el sistema de alteración, eso se hace necesario solamente en la placa de metal duro.

Alta Rentabilidad

Las mejores calidades de metal duro, el afilado pulidor, los precios bajos y el reafilado múltiple garantizan la alta rentabilidad.



TIGRA SuperPac®

Cutting Edge Projection

Between carbide blank and backing plate $s=3,2$ mm (critical dimension when regrinding).

Schneidenüberstand

Schneidenüberstand von Hartmetallplatte zu Stützplatte $s=3,2$ mm (beim Nachschärfen bitte beachten).

Saillie des plaquettes

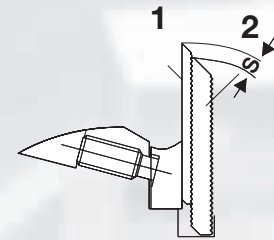
Les plaquettes carbure dépassent les fers de soutien de 3,2 mm (à prendre en compte lors du réaffûtage).

Sporgenza del tagliente

Il tagliente sporge di $s= 3,2$ mm rispetto alla piastrina di supporto (prestare attenzione in caso di riaffilatura).

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 reafila)



- 1** Carbide Blank
Hartmetall Blankett
Plaquette carbure
Placchette in HM
Pieza en bruto de metal duro
- 2** Corrugated Back Support
Rückenverzahnte Stützplatte
Porte-Plaquette denté
Placchette di supporto con rigatura
Placa de soporte dentada por el lomo

Maximum Profile Depth

Maximale Profiltiefe

Profondeur de profil maximum

Massima profondità di sagoma

Profundidad máxima de perfil

W mm

P max mm

38

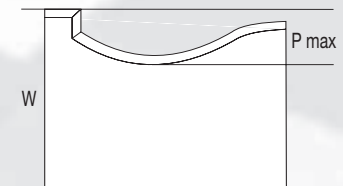
for planing only, nur zum Hobeln

50

12

60

23



Highest Precision

With the precision-ground microcorrugation, the knife cannot move which guarantees the highest finish quality.

Höchste Präzision

Durch die präzisionsgeschliffene Microverzahnung sind bei den im Einsatz befindlichen Messern keine Verschiebungen möglich, wodurch beste Produktqualität gewährleistet wird.

Grande précision

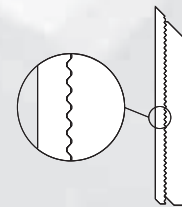
Grâce à la microdenture rectifiée avec précision, aucun décalage des plaquettes n'est possible en cours d'utilisation, ce qui garantit une qualité optimale du produit.

Altissima precisione

La microdentatura di elevata precisione impedisce ogni movimento della lame durante l'esercizio, il che garantisce una produzione di alta qualità.

Precisión exacta

La cuchillas insertadas no pueden desplazarse debido a la micro-dentadura de filo preciso, pour lo cual la mejor calidad del producto es garantizada.



Warning!

Safe operation of this system is possible only if all parts are clean, undamaged and properly secured in place with gibbs and screws. All safety requirements of the cutter and the machine manufacturer must be followed.

Warnung!

Eine sichere Benutzung ist nur gewährleistet, wenn alle Teile sauber, unbeschädigt und richtig montiert sind. Alle Sicherheitsbestimmungen vom Werkzeug- und Maschinenhersteller müssen beachtet werden.

Avertissement!

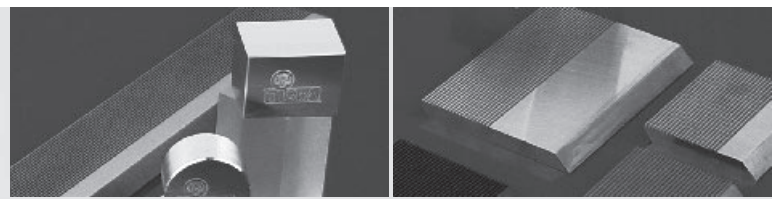
La sécurité d'utilisation n'est garantie que si toutes les pièces sont propres, non endommagées et montées en toute conformité. Il faut respecter toutes les consignes de sécurité du constructeur de l'outils et de la machine.

Avvertenza!

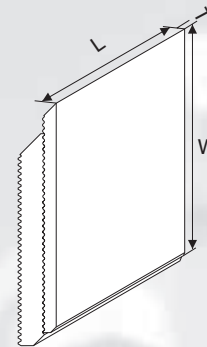
L'esercizio sicuro è garantito solo se tutti i pezzi sono puliti, non danneggiati e montati correttamente. Occorre osservare tutte le avvertenze di sicurezza indicate dal costruttore della macchina e degli utensili.

Aviso!

El manejo seguro sólo se garantiza, si todas las partes están limpias, en buenas condiciones y montadas correctamente. Todas las instrucciones de seguridad del constructor de herramienta y de maquinaria deben observarse.



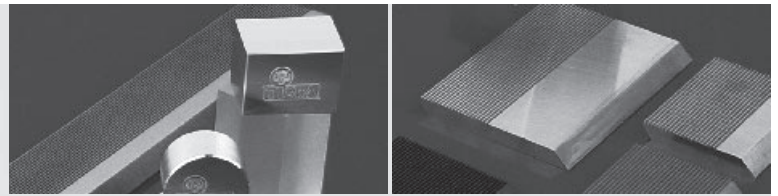
Knives for back corrugated cutterheads
 Messer für rückenverzahnte Messerköpfe
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 Placas para fresas dentadas



SuperPac®

L	W	T	T10MG	T04F	TL15	T03SMG	L	W	T	Backing plate
mm	mm	mm	Standard	Standard	Special	Special	mm	mm	mm	Stützplatte
40	38	3.2	043933	024082	024086	024080	40	35	7.1	024090
50	38	3.2	043934	043924	043926	043925	50	35	7.1	043957
60	38	3.2	043935	024115	024119	024113	60	35	7.1	024123
80	38	3.2	043936	024148	024152	024146	80	35	7.1	024156
100	38	3.2	043937	023949	023953	023947	100	35	7.1	023957
120	38	3.2	043938	023982	023986	023980	120	35	7.1	023990
130	38	3.2	043939	024016	024020	024014	130	35	7.1	024024
150	38	3.2	043940	024049	024053	024047	150	35	7.1	024057
170	38	3.2	043962	043961	043963	043960	170	35	7.1	045837
40	50	3.2	043941	024093	024097	024091	40	47	7.1	024101
50	50	3.2	043942	043927	043929	043928	50	47	7.1	043958
60	50	3.2	043943	024126	024130	024124	60	47	7.1	024134
80	50	3.2	043944	024159	024163	024157	80	47	7.1	024167
100	50	3.2	043945	023960	023964	023985	100	47	7.1	023968
120	50	3.2	043946	023993	023997	023991	120	47	7.1	024001
130	50	3.2	043947	024027	024031	024025	130	47	7.1	024035
150	50	3.2	043948	024060	024064	024058	150	47	7.1	024068
170	50	3.2	043966	043965	043967	043964	170	47	7.1	045838
40	60	3.2	043949	024104	024108	024102	40	57	7.1	024112
50	60	3.2	043950	043931	043930	043932	50	57	7.1	043959
60	60	3.2	043951	024137	024141	024135	60	57	7.1	024145
80	60	3.2	043952	024170	024174	024168	80	57	7.1	024178
100	60	3.2	043953	023971	023975	023969	100	57	7.1	023979
120	60	3.2	043954	024004	024008	024002	120	57	7.1	024012
130	60	3.2	043955	024038	024042	024036	130	57	7.1	024046
150	60	3.2	043956	024071	024075	024069	150	57	7.1	024079
170	60	3.2	043970	043969	043971	043968	170	57	7.1	045839

TIGRA EcoPac®



The low-price easy to handle system for back corrugated cutterheads

Major advantages for the users of these heads:

Low priced: economic system

The price of existing double packed systems for some customers might be too expensive compared with HSS. EcoPac offers an *economic alternative* even more with the low priced packing plates.

High security

TIGRA EcoPac can be used **up to 6000 rpm**. By respecting the safety regulations EcoPac is a *very safe system* by using thick pins for holding the knives in precision holes.

Savings through reversible usage

For many applications EcoPac can be profiled double-sided. This always *saves one complete carbide knife*.

Many different carbide grades

EcoPac is available from our stock in two carbide grades. It also can be ordered in *all of TIGRA's superior grades*.

Multiple Regrinds

EcoPac can be reground many times depending on the wear. Also several regrinds of the backing plate can be made.

Das günstige, einfach zu handhabende System für rückenverzahnte Messerköpfe

Hauptanwendungsvorteile:

Niedriger Preis: wirtschaftliches System

Der Preis einiger Systeme ist für einige Kunden zu hoch im Vergleich zu HSS. EcoPac bietet eine *günstige Alternative*, auch durch den niedrigen Preis der Stützplatten.

Hohe Sicherheit

Mit TIGRA EcoPac sind **bis zu 6000 U/min** möglich. Bei Beachtung der Sicherheitsbestimmungen ist EcoPac *sicher und einfach zu benutzen*. Die Sicherheit wird durch die dicken Stifte zur Halterung in den Präzisionsbohrungen erreicht.

Einsparungen durch beidseitige Verwendung

Für viele Anwendungen kann EcoPac doppelseitig profiliert werden. Das *spart jedesmal ein komplettes Hartmetall-Blankett*.

Viele verschiedene Hartmetallsorten

EcoPac ist ab Lager in zwei Hartmetallsorten verfügbar. Natürlich können Sie EcoPac auch in *allen anderen TIGRA-Hartmetallsorten* bestellen.

Vielfach nachschärfbar

EcoPac kann abhängig von der Abnutzung vielfach nachgeschärft werden. Auch die Stützplatte kann mehrfach geschliffen werden.

Le système le plus avantageux et d'utilisation simple pour les porte-outils à fers crantés

Nombreux avantages à ses utilisateurs:

Prix réduit: Système économique

Beaucoup d'utilisateurs estiment que le coût de certains systèmes à plaquettes carbure est trop élevé par rapport aux fers d'acier rapide ou HSS. EcoPac offre une *alternativa económica*, entre autre grâce au prix de revient réduit des fers de soutien.

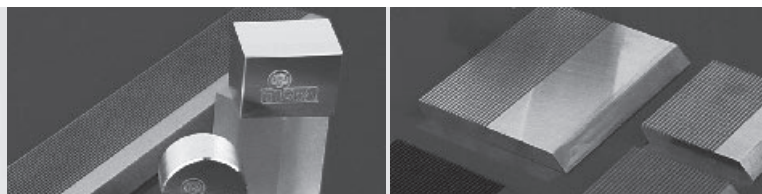
Haute sécurité

TIGRA EcoPac permet des vitesses **jusqu'à 6000 t/min**. EcoPac *s'utilise en toute sécurité et en toute simplicité* si les consignes de sécurité sont respectées. Des grosses goupilles de maintien et des perçages de précision garantissent la sécurité.

Economies grâce à une utilisation des deux côtés

EcoPac peut être profilé des deux côtés dans de nombreux cas, d'où *l'économie d'une plaquette carbure à chaque fois*.

TIGRA EcoPac®



Nombreux types de carbures différents

EcoPac peut être commandé dans *toutes les nuances de carbures TIGRA*, les stock étant assurés dans les deux qualités de base.

Nombreux réaffûtages possibles

EcoPac peut être réaffûté de nombreuses fois. Le fer de soutien peut lui aussi être rectifié.

Il sistema conveniente e facile da usare per le teste di fresatura a zigrinatura posteriore

Numerosi vantaggi agli utenti:

Un prezzo contenuto rende il sistema economicamente conveniente

Per molti clienti il prezzo di certi sistemi è troppo elevato rispetto alla soluzione HSS. EcoPac offre un' *alternativa vantaggiosa*, anche grazie al prezzo contenuto delle piastrine di supporto.

Elevata sicurezza

TIGRA EcoPac permette **velocità fino a 6000 giri/min**. Se vengono osservate le norme di sicurezza EcoPac è *sicuro e semplice da utilizzare*. La sicurezza è garantita dalla dimensione dei perni che si accoppiano con fori di precisione al montaggio.

Risparmio dovuto all'utilizzo da entrambi i lati

Per molte applicazioni è possibile profilare EcoPac da entrambi i lati. Ciò permette di *risparmiare ogni volta una placchetta di metallo duro*.

Molti tipi diversi di metallo duro

EcoPac è disponibile a magazzino in due diversi tipi di metallo duro. Inoltre è comunque possibile ordinare EcoPac anche *in tutti gli altri tipi di metallo duro TIGRA*.

Possibilità di numerose riaffilature successive

A seconda dell'usura è possibile riaffilare EcoPac ripetutamente. Anche la piastrina di supporto può essere ripetutamente rettificata.

El sistema económico y de manejo simple para cabezales de cuchillas de lomo dentado

Muchas ventajas a sus utilizadores:

Precio barato: Sistema económico

El precio de algunos sistemas en comparación a HSS es demasiado alto para muchos clientes. EcoPac ofrece una *alternativa económica*, incluyendo también el bajo coste de las placas de soporte.

Alta Seguridad

Con TIGRA EcoPac se permiten **hasta 6000 revoluciones por minuto**. El manejo de EcoPac es *seguro y simple* observando los reglamentos de seguridad. La seguridad se consigue mediante los pasadores gruesos para el soporte en los taladros de precisión.

Ahorros mediante uso bilateral

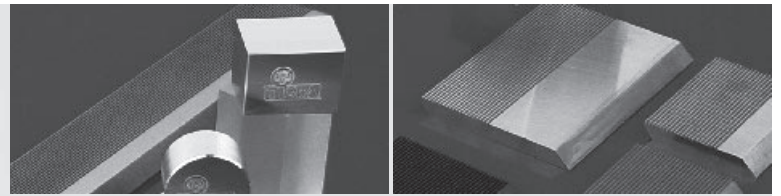
Para muchas aplicaciones EcoPac puede perfilarse bilateralmente. Por lo cual *se ahorra una placa de metal duro entera*.

Muchas calidades de metal duro diferentes

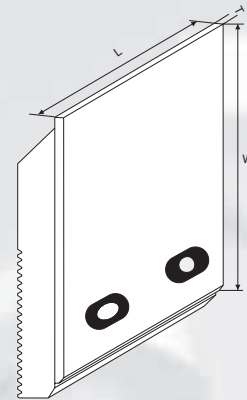
EcoPac se tiene disponible en dos calidades de metal duro. Por supuesto, EcoPac puede pedirse también en *todas las demás calidades TIGRA de metal duro*.

Reafilado múltiple

EcoPac puede reafilarse varias veces según desgaste. También la placa de soporte puede afilarse repetidas veces.

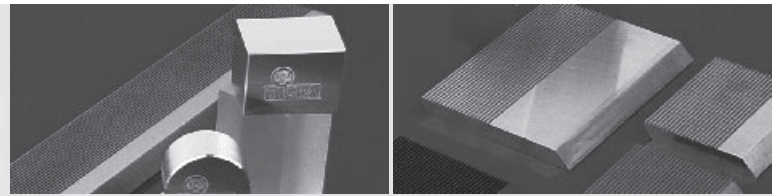


Knives for back corrugated cutterheads
 Messer für rückenverzahnte Messerköpfe
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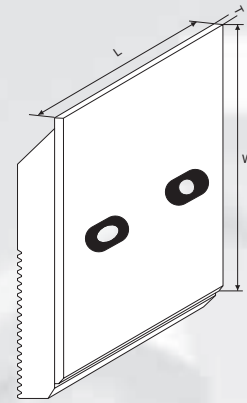


EcoPac®

L mm	W mm	T mm	T10MG Standard	T04F Standard	Backing plate/ Stützplatte (T=8)
40	38	2	047802	047803	048171
50	38	2	047805	047804	048173
60	38	2	047807	047806	048174
80	38	2	047809	047808	048176
100	38	2	047811	047810	048177
120	38	2	047813	047812	048180
130	38	2	048168	048167	048181
150	38	2	048170	048169	048183
40	50	2	047815	047814	048185
50	50	2	047817	047816	048186
60	50	2	047819	047818	048188
80	50	2	047821	047820	048190
100	50	2	047823	047641	048191
120	50	2	047826	047825	048193
130	50	2	048175	048172	048195
150	50	2	048179	048178	048197
40	60	2	047827	047639	048200
50	60	2	047829	047828	048202
60	60	2	047831	047640	048203
80	60	2	047837	047836	048204
100	60	2	047839	047838	048205
120	60	2	047841	047840	048206
130	60	2	048184	048182	048207
150	60	2	048189	048187	048208



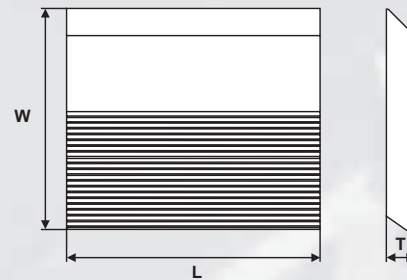
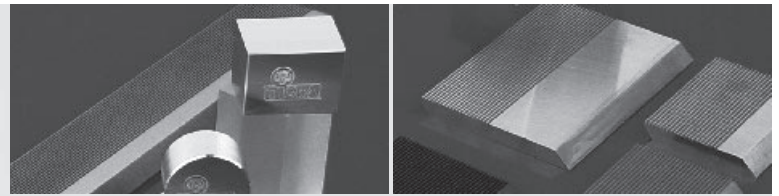
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EcoPac®

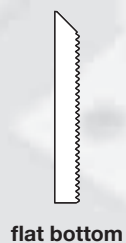
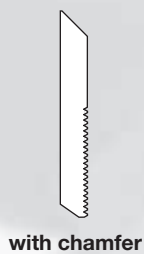
L mm	W mm	T mm	T10MG Standard	T04F Standard	Backing plate/ Stützplatte (T=8)
40	38	2	048194	048192	048209
50	38	2	048198	048196	048210
60	38	2	048201	048199	048211
80	38	2	048234	048233	048212
100	38	2	048236	048235	048213
120	38	2	048238	048237	048214
130	38	2	048240	048239	048215
150	38	2	048242	048241	048216
40	50	2	048244	048243	048217
50	50	2	047843	047842	048218
60	50	2	047845	047844	048219
80	50	2	048246	048245	048220
100	50	2	048248	048247	048221
120	50	2	048250	048249	048222
130	50	2	048252	048251	048223
150	50	2	048254	048253	048224
40	60	2	047847	047846	048225
50	60	2	047849	047848	048226
60	60	2	047850	047763	048227
80	60	2	048256	048255	048228
100	60	2	047851	047762	048229
120	60	2	048258	048257	048230
130	60	2	048260	048259	048231
150	60	2	048262	048261	048232

HSS blanks back corrugated
HSS Blanketts, rückenverzahnt
HSS fers crantes
HSS placchette, con sigrinatura
HSS placas, dentadas



L mm	W mm				T mm
	40	50	60	70	
40.0	030289	030307	030326	030345	8.0
50.0	030290	030308	030327	030346	8.0
60.0	030291	030309	030328	030347	8.0
70.0	030292	030310	030329	030348	8.0
80.0	030293	030311	030330	030349	8.0
90.0	030294	030312	030331	030350	8.0
100.0	030295	030313	030332	030351	8.0
110.0	047397	047398	047399	047400	8.0
120.0	030296	030314	030333	030352	8.0
130.0	030297	030315	030334	030353	8.0
150.0	030298	030316	030335	030354	8.0
170.0	030299	030317	030336	030355	8.0
180.0	030300	030318	030337	030356	8.0
200.0	030301	030319	030338	030357	8.0
210.0	030302	030320	030339	030358	8.0
230.0	030303	030321	030340	030359	8.0
260.0	030304	030322	030341	030360	8.0
650.0	030306	030324	030344	030362	8.0

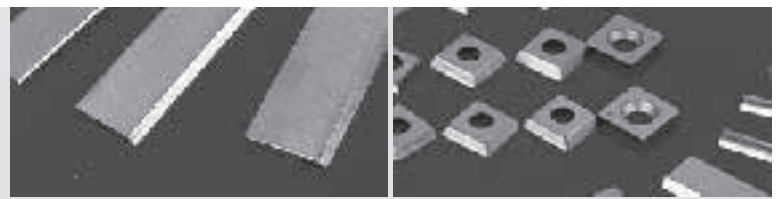
L inch	W inch	T mm	with chamfer	flat bottom
25	1 1/4	5/16	046364	101054
25	1 1/2	5/16	046365	101055
25	1 3/4	5/16	046366	101056
25	2	5/16	046367	101057
25	2 1/4	5/16	046368	101058
25	2 1/2	5/16	046369	101059
25	2 3/4	5/16	046370	101060
25	3	5/16	046371	101061
25	1 1/4	1/4	046372	101062
25	1 1/2	1/4	046373	101063
25	1 3/4	1/4	046374	101064
25	2	1/4	046375	101065
25	2 1/4	1/4	046376	101066
25	2 1/2	1/4	046377	101067
25	1 3/4	3/16	046378	101068
25	2	3/16	046379	101069





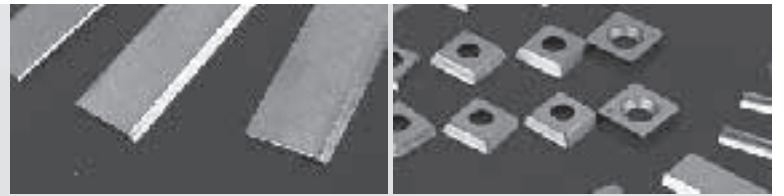
Knives for planing systems
Messer für Hobelsysteme
Couteaux pour outils à raboter
Coltelli per sistemi da pialla
Cuchillas para fresas helicoidales



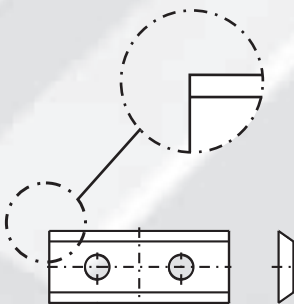
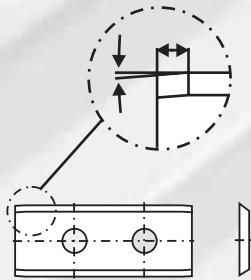
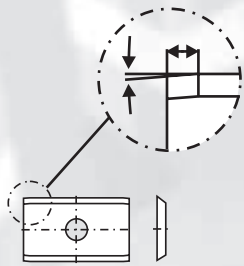
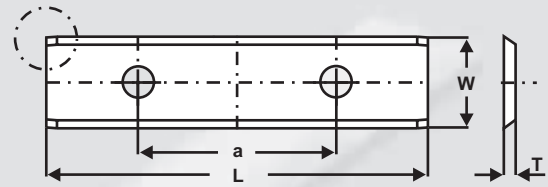


Knives for planing systems
Messer für Hobelsysteme
Couteaux pour outils à raboter
Coltelli per sistemi da pialla
Cuchillas para fresas helicoidales

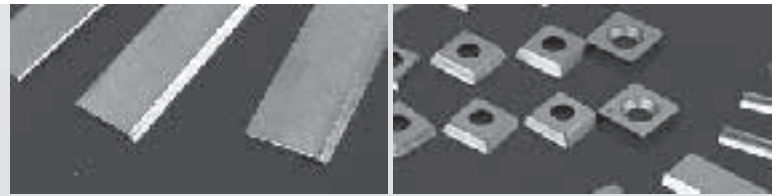
	<p>Reversible knives for spiral cutterheads Wendeschneidplatten für Spiralhobelköpfe Plaquettes reversibles pour porte-outils hélicoïdaux Coltellini per teste elicoidali Cuchillas reversibles para fresas helicoidales</p>	<p>69 - 71</p>
	<p>Reversible knives for portable planers Wendeplatten für Handhobel Plaquettes pour rabots electro portatifs Coltelli pialatrici portatili Cuchillas para acepilladoras electricas</p>	<p>72</p>
	<p>Planer knives for systems Bulldozer, Terminus, Centrolock, Tersa, Centrostar Hobelmesser für Systeme Bulldozer, Terminus, Centrolock, Tersa, Centrostar Couteaux à raboter pour systèmes Bulldozer, Terminus, Centrolock, Tersa, Centrostar Coltelli da pialla per sistemi Bulldozer, Terminus, Centrolock, Tersa, Centrostar Cuchillas para cepillar para sistemas Bulldozer, Terminus, Centrolock, Tersa, Centrostar</p>	<p>73 - 77</p>
	<p>Solid carbide planer knives Vollhartmetall Hobelmesser Couteaux à raboter au carbure massif Coltelli da pialla in HM integrale Cuchillas metal duro integral</p>	<p>78</p>
	<p>T.C.T. planer knives HM-bestückte Hobelmesser Couteaux à mise rapportée Coltelli da pialla con metallo duro riportato Cuchillas metal duro</p>	<p>79 - 80</p>
	<p>HSS planer knives HSS Hobelmesser Fers de raboteuse HSS Coltelli da pialla in HSS Cuchillas en HSS</p>	<p>81 - 82</p>



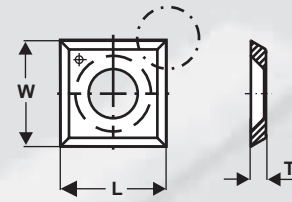
Reversible knives for spiral cutterheads
Wendeplatten für Spiralhobelköpfe
Plaquettes reversibles pour porte-outils hélicoïdaux
Coltellini per teste elicoidali
Cuchillas reversibles para fresas helicoidales



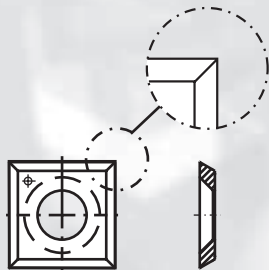
L	W	T		T08MF	T04F	T10MG	TL15	T03SMG
mm	mm	mm						
20.0	12.0	1.5	35°			013979		
24.0	12.0	1.5	40°	037246		041060		056136
24.7	12.0	1.5	35°	055743				
30.0	12.0	1.5	35°			013984		
40.0	12.0	1.5	35°			014008		
50.0	12.0	1.5	35°			013989		
60.0	12.0	1.5	35°			013996		
30.0	12.0	2.5	35°		054259			



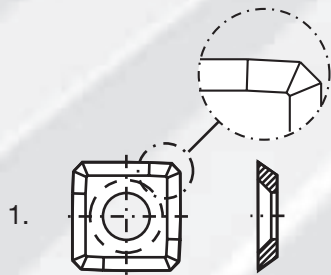
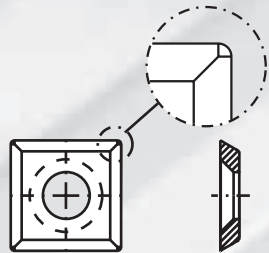
Reversible knives for spiral cutterheads
Wendeplatten für Spiralhobelköpfe
Plaquettes reversibles pour porte-outils hélicoïdaux
Coltellini per teste elicoidali
Cuchillas reversibles para fresas helicoidales



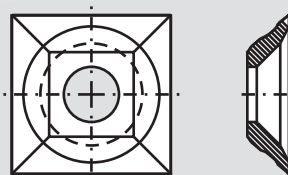
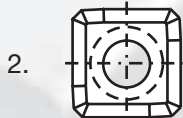
Straight sharp edges



Straight with rounded edges

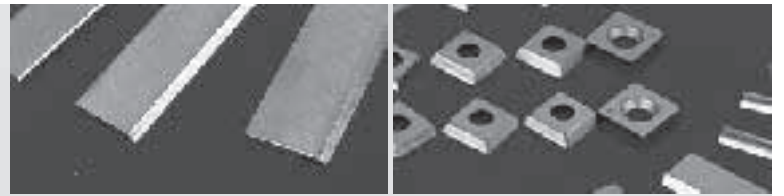


For System Ledinek *

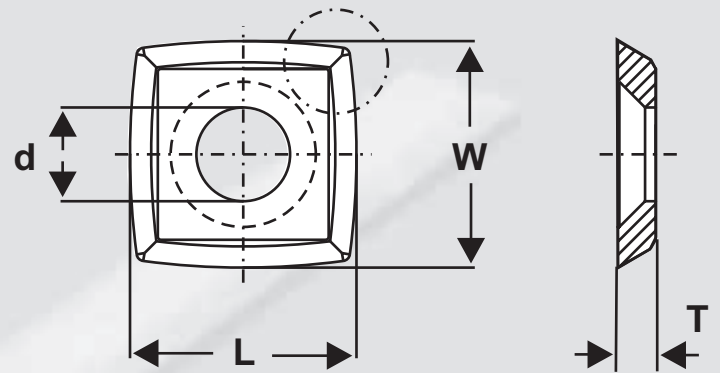


L	W	T		T08MF	T04F	T10MG	TL15
mm	mm	mm					
10.5	10.5	1.5	35°				040343
14.0	14.0	2.0	30°	013273	013260	014028	013771
14.3	14.3	2.5	35°			013329	
14.6	14.6	2.5	30°			013314	
15.0	15.0	2.5	30°			013315	
14.0	14.0	2.0		013276			
14.6	14.6	2.5				013316	
14.3	14.3	2.5	35°			053589	
14.3	14.3	2.5	35°			053590	
21.0	21.0	5.5	40°			022695	

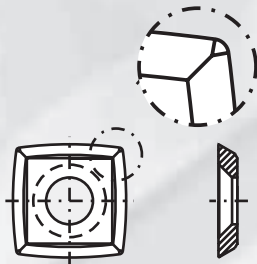
* For use in Ledinek-cutterheads only
 * Nur zur Verwendung in Messerköpfen der Firma Ledinek
 * Utilisation limitée aux têtes à lames de l'entreprise Ledinek
 * Da usare solo su teste portacoltellini della Ledinek
 * Sólo para empleo con portacuchillas de la firma Ledinek



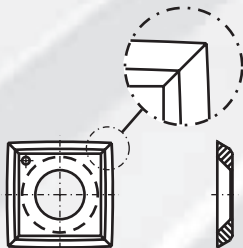
Reversible knives for spiral cutterheads
Wendeplatten für Spiralhobelköpfe
Plaquettes reversibles pour porte-outils hélicoïdaux
Coltellini per teste elicoidali
Cuchillas reversibles para fresas helicoidales



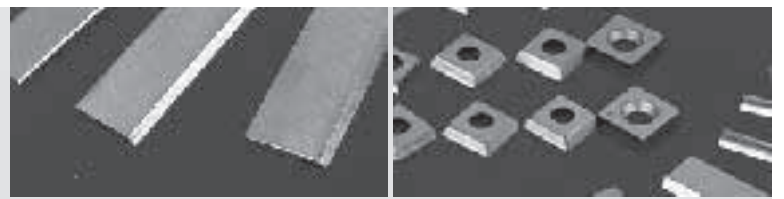
Cutting edge with radius, rounded edge



Cutting edge with radius, pointed edge



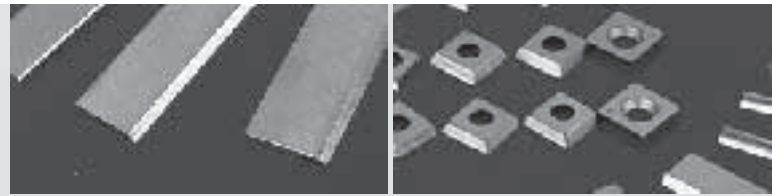
L	W	T	R	T10MG
mm	mm	mm		
14.0	14.0	2.0	R=150	100788
14.6	14.6	2.5	R=150	052673
15.0	15.0	2.5	R=150	013320
15.0	15.0	2.5	R=50	043895
14.0	14.0	2.0	R=150	100789
14.6	14.6	2.5	R=150	100790
15.0	15.0	2.5	R=150	100791
15.0	15.0	2.5	R=50	101044



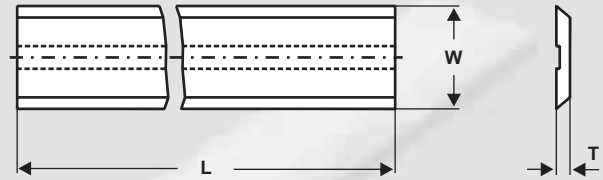
Reversible knives for portable planers
Wendeplatten für Handhobel
Plaquettes por robots electro portatifs
Coltelli piallatrici portatili
Cuchillas para acepilladoras electricas



L	W	T	T08MF	
mm	mm	mm		
56.0	5.5	1.1	013041	Adler
60.0	5.5	1.1	013053	Wegoma
75.5	5.5	1.1	013001	AEG, Bosch, Festo, Haffner, Kress, Mafell, Metabo, Scheer, Skil, Holz-Her
75.7	5.5	1.2	013018	B&D
80.5	5.9	1.2	013043	ELU
80.5	5.5	1.1	013010	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, B&D
82.7	5.5	1.1	013032	B&D
92.0	5.5	1.1	013057	AEG, Hitachi, Ryobi
102.0	5.5	1.1	013061	AEG
82.0	5.5	1.1	013082	Casals
82.0	5.1	1.2	013034	Scanalatura frontale, Ranura frontal

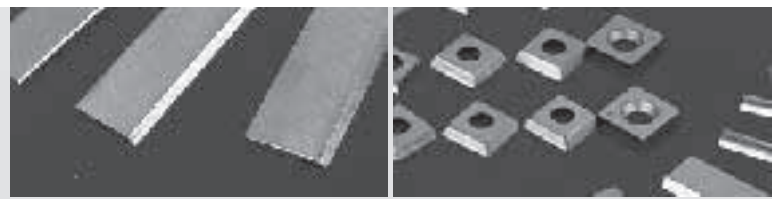


Planer knives - System Bulldozer
Hobelmesser - System Bulldozer
Couteaux à raboter - Système Bulldozer
Coltelli da pialla - Sistema Bulldozer
Cuchillas para cepillar - Sistema Bulldozer

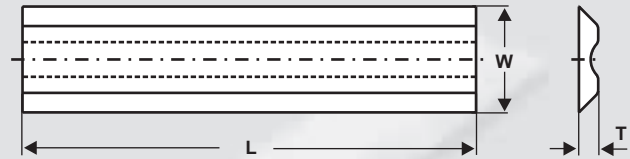


For System Bulldozer

L mm	W mm	T mm	T10MG
60.0	13.6	1.8	047422
80.0	13.6	1.8	046288
100.0	13.6	1.8	013713
110.0	13.6	1.8	047423
120.0	13.6	1.8	013715
130.0	13.6	1.8	013716
140.0	13.6	1.8	013723
150.0	13.6	1.8	013718
160.0	13.6	1.8	013726
180.0	13.6	1.8	013719
190.0	13.6	1.8	013725
200.0	13.6	1.8	013720
230.0	13.6	1.8	013721
240.0	13.6	1.8	040337
250.0	13.6	1.8	013722
260.0	13.6	1.8	035440



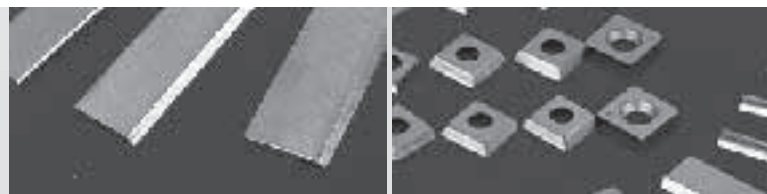
Planer knives - System Terminus
 Hobelmesser - System Terminus
 Couteaux à raboter - Système Terminus
 Coltelli da pialla - Sistema Terminus
 Cuchillas para cepillar - Sistema Terminus



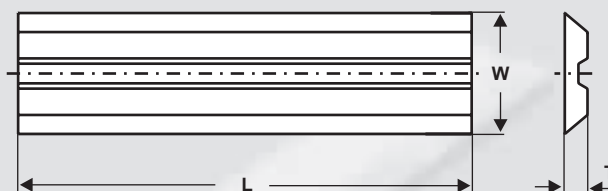
For System Terminus *

L	W	T	HW	HSS
mm	mm	mm	T10MG	
50.0	14.0	2.55	100796	100348
60.0	14.0	2.55	100803	100350
80.0	14.0	2.55	100804	100349
100.0	14.0	2.55	100805	100297
110.0	14.0	2.55	100806	100351
120.0	14.0	2.55	100807	100352
130.0	14.0	2.55	055496	055461
140.0	14.0	2.55	100808	100353
150.0	14.0	2.55	100809	100354
160.0	14.0	2.55	100811	100355
170.0	14.0	2.55	100812	100356
180.0	14.0	2.55	100813	100357
190.0	14.0	2.55	100814	100358
200.0	14.0	2.55	100815	100359
210.0	14.0	2.55	100816	100360
220.0	14.0	2.55	100817	100361
230.0	14.0	2.55	054752	055462
240.0	14.0	2.55	100818	100362
250.0	14.0	2.55	100819	100363
260.0	14.0	2.55	100820	100364
270.0	14.0	2.55	100821	100365
280.0	14.0	2.55	100822	100366
300.0	14.0	2.55	100823	100367
310.0	14.0	2.55	055497	055468
350.0	14.0	2.55	100824	100368
360.0	14.0	2.55	100825	100369
400.0	14.0	2.55	100826	100370
410.0	14.0	2.55	055498	055464
420.0	14.0	2.55	100828	100371
430.0	14.0	2.55	100829	100372
450.0	14.0	2.55	100830	100373
480.0	14.0	2.55	100940	100550
510.0	14.0	2.55	055499	055465
520.0	14.0	2.55	100831	100374
530.0	14.0	2.55	100832	100375
610.0	14.0	2.55	055500	055466
620.0	14.0	2.55	100833	100376
630.0	14.0	2.55	100834	100377
640.0	14.0	2.55	100835	100378
650.0	14.0	2.55	055501	055467

* For use in Terminus-cutterheads only
 * Nur zur Verwendung in Terminus-Messerköpfen
 * Utilisation limitée aux têtes à lames de Terminus
 * Da usare solo su teste portacoltelli della Terminus
 * Sólo para empleo con portacuchillas de Terminus



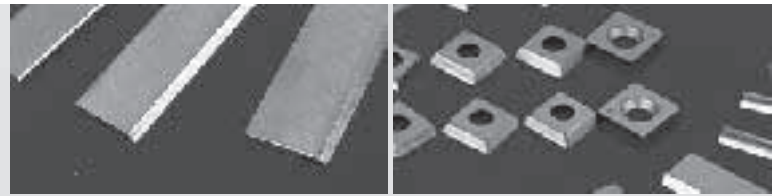
Planer knives - System Centrolock
 Hobelmesser - System Centrolock
 Couteaux à raboter - Système Centrolock
 Coltelli da pialla - Sistema Centrolock
 Cuchillas para cepillar - Sistema Centrolock



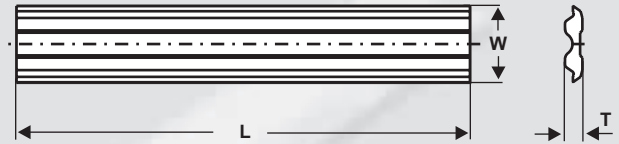
For System Centrolock *

L	W	T	HW	HSS
mm	mm	mm	T10MG	
20.0	16.0	3.0	100836	100386
60.0	16.0	3.0	100837	100387
80.0	16.0	3.0	100838	100388
100.0	16.0	3.0	055502	055469
130.0	16.0	3.0	055503	055470
150.0	16.0	3.0	100839	100389
170.0	16.0	3.0	055504	055471
180.0	16.0	3.0	100840	100390
190.0	16.0	3.0	100841	055472
210.0	16.0	3.0	100842	100391
230.0	16.0	3.0	054753	100298
235.0	16.0	3.0	100844	100392
240.0	16.0	3.0	055505	055473
260.0	16.0	3.0	100845	100343
270.0	16.0	3.0	055506	055474
310.0	16.0	3.0	100846	100393
460.0	16.0	3.0	055507	055475
650.0	16.0	3.0	055508	055476

* For use in Centrolock-cutterheads only
 * Nur zur Verwendung in Centrolock-Messerköpfen
 * Utilisation limitée aux têtes à lames de Centrolock
 * Da usare solo su teste portacoltelli della Centrolock
 * Sólo para empleo con portacuchillas de Centrolock



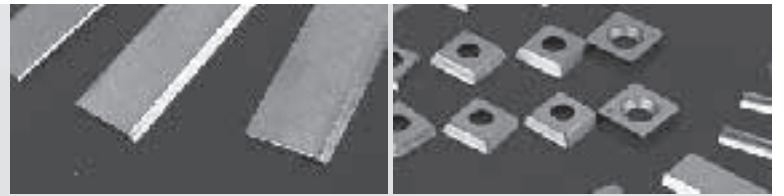
Planer knives - System Tersa
Hobelmesser - System Tersa
Couteaux à raboter - Système Tersa
Coltelli da pialla - Sistema Tersa
Cuchillas para cepillar - Sistema Tersa



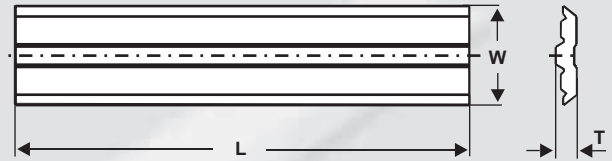
For System Tersa *

L	W	T	HW	HSS
mm	mm	mm	T10MG	
60.0	10.0	2.3	100847	100395
80.0	10.0	2.3	100848	100396
100.0	10.0	2.3	055509	100397
110.0	10.0	2.3	100849	100398
120.0	10.0	2.3	100851	100399
130.0	10.0	2.3	055510	100400
150.0	10.0	2.3	100852	100401
170.0	10.0	2.3	100853	100402
180.0	10.0	2.3	100854	100403
210.0	10.0	2.3	100855	100404
230.0	10.0	2.3	055511	100405
250.0	10.0	2.3	100856	100406
260.0	10.0	2.3	100857	100407
280.0	10.0	2.3	100858	100408
300.0	10.0	2.3	100859	100409
310.0	10.0	2.3	055512	100410
330.0	10.0	2.3	100861	100411
350.0	10.0	2.3	100862	100412
360.0	10.0	2.3	100863	100413
400.0	10.0	2.3	100864	100414
410.0	10.0	2.3	055513	100415
420.0	10.0	2.3	100865	100416
430.0	10.0	2.3	055514	100417
450.0	10.0	2.3	100866	100418
500.0	10.0	2.3	100867	100419
510.0	10.0	2.3	055515	100420
520.0	10.0	2.3	055516	100421
530.0	10.0	2.3	100868	100422
540.0	10.0	2.3	100869	100423
610.0	10.0	2.3	055517	100424
630.0	10.0	2.3	055518	100425
640.0	10.0	2.3	100870	100426
650.0	10.0	2.3	055519	100427

* For use in Tersa-cutterheads only
 * Nur zur Verwendung in Tersa-Messerköpfen
 * Utilisation limitée aux têtes à lames de Tersa
 * Da usare solo su teste portacoltelli della Tersa
 * Sólo para empleo con portacuchillas de Tersa



Planer knives - System Centrostar
Hobelmesser - System Centrostar
Couteaux à raboter - Système Centrostar
Coltelli da pialla - Sistema Centrostar
Cuchillas para cepillar - Sistema Centrostar

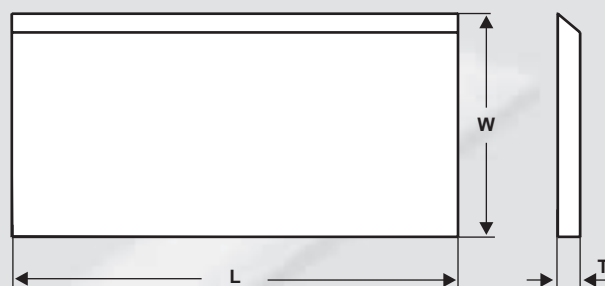
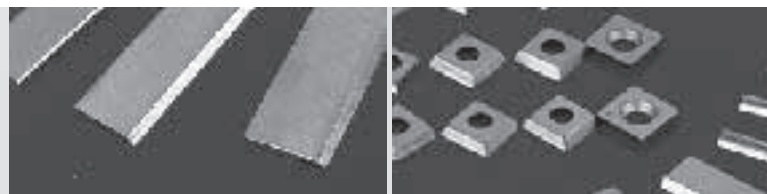


For System Centrostar *

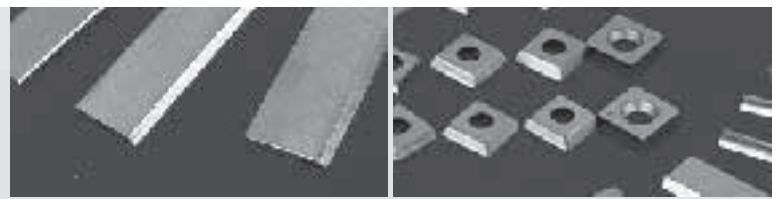
L	W	T	HW	HSS
mm	mm	mm	T10MG	
50.0	12.0	2.7	100876	100896
80.0	12.0	2.7	100879	100897
100.0	12.0	2.7	100880	100898
120.0	12.0	2.7	100881	100899
130.0	12.0	2.7	055520	055488
136.0	12.0	2.7	100883	100900
150.0	12.0	2.7	100884	100901
170.0	12.0	2.7	100885	100902
180.0	12.0	2.7	055521	055489
190.0	12.0	2.7	100886	100904
210.0	12.0	2.7	100887	100905
230.0	12.0	2.7	055522	055490
240.0	12.0	2.7	100890	100906
400.0	12.0	2.7	100891	100907
410.0	12.0	2.7	055523	055491
420.0	12.0	2.7	100892	100908
430.0	12.0	2.7	100893	100909
500.0	12.0	2.7	100894	100910
510.0	12.0	2.7	055524	055492
520.0	12.0	2.7	055525	055493
530.0	12.0	2.7	055526	055494
540.0	12.0	2.7	100895	100911
650.0	12.0	2.7	055527	055495

* For use in Centrostar-cutterheads only
 * Nur zur Verwendung in Centrostar-Messerköpfen
 * Utilisation limitée aux têtes à lames de Centrostar
 * Da usare solo su teste portacoltelli della Centrostar
 * Sólo para empleo con portacuchillas de Centrostar

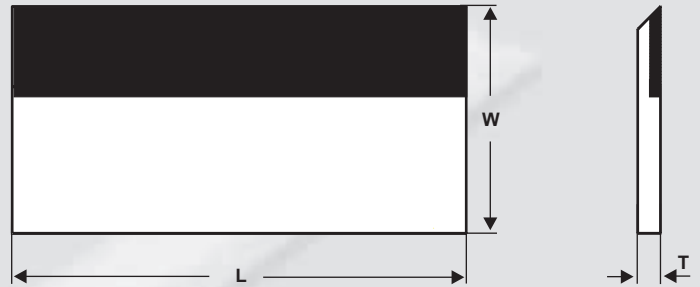
Solid carbide planer knives
Vollhartmetall Hobelmesser
Couteaux à raboter au carbure massif
Coltelli da pialla in HM integrale
Cuchillas metal duro integral



L	W	T	T10MG
mm	mm	mm	
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
260.0	30.0	3.0	049222
310.0	30.0	3.0	050061
60.0	35.0	3.0	047867
80.0	35.0	3.0	047868
100.0	35.0	3.0	047869
110.0	35.0	3.0	050065
120.0	35.0	3.0	050067
130.0	35.0	3.0	047870
150.0	35.0	3.0	050070
180.0	35.0	3.0	050072
210.0	35.0	3.0	050074
230.0	35.0	3.0	049669
260.0	35.0	3.0	050077
310.0	35.0	3.0	050079



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

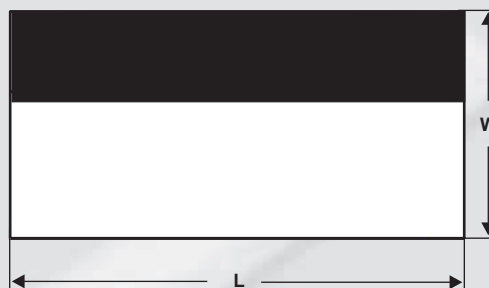
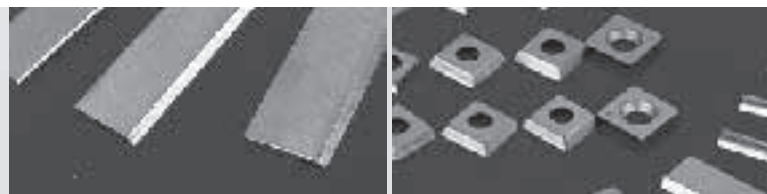


L	W	T	Art.-Nr.
mm	mm	mm	
60.0	30.0	3.0	029969
80.0	30.0	3.0	029970
100.0	30.0	3.0	029972
110.0	30.0	3.0	029973
120.0	30.0	3.0	029974
130.0	30.0	3.0	029975
150.0	30.0	3.0	029979
180.0	30.0	3.0	029982
210.0	30.0	3.0	029987
230.0	30.0	3.0	029989
260.0	30.0	3.0	029994
300.0	30.0	3.0	029996
310.0	30.0	3.0	029997
410.0	30.0	3.0	030001
510.0	30.0	3.0	030007
610.0	30.0	3.0	030012
710.0	30.0	3.0	030016
810.0	30.0	3.0	030018
820.0	30.0	3.0	101049

L	W	T	Art.-Nr.
mm	mm	mm	
60.0	35.0	3.0	030021
80.0	35.0	3.0	030022
100.0	35.0	3.0	030024
110.0	35.0	3.0	030025
120.0	35.0	3.0	030026
130.0	35.0	3.0	030027
150.0	35.0	3.0	030029
180.0	35.0	3.0	030032
210.0	35.0	3.0	030035
230.0	35.0	3.0	030036
260.0	35.0	3.0	030040
300.0	35.0	3.0	030041
310.0	35.0	3.0	030042
410.0	35.0	3.0	030047
510.0	35.0	3.0	030050
610.0	35.0	3.0	030054
710.0	35.0	3.0	030058
810.0	35.0	3.0	030059
820.0	35.0	3.0	101050

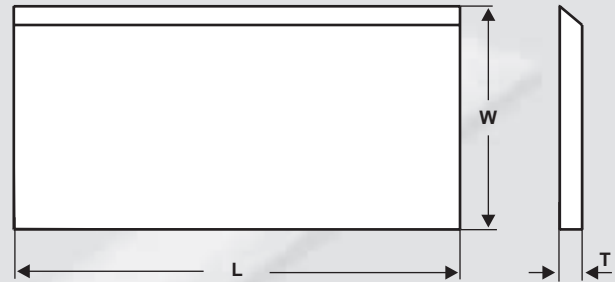
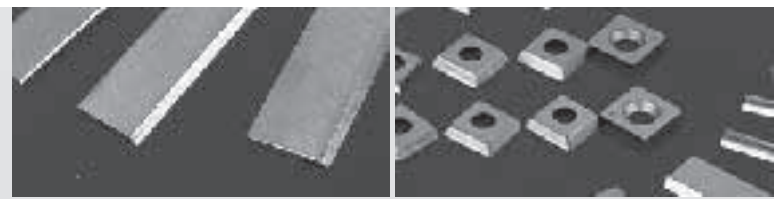
Other dimensions upon request.
 Andere Abmessungen auf Anfrage.
 D'autres dimensions sur demande.
 Altri dimensioni a richiesta.
 Otras dimensiones bajo demanda.

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



L	W	T	Art.-Nr.
inch	inch	inch	
25	5/8	3/32	100922
25	5/8	1/8	100923
25	3/4	1/8	100924
25	1	1/8	100925
25	1 1/8	1/8	100926
25	1 1/4	1/8	100927
25	1 3/8	1/8	100928
25	1 1/2	1/8	100929
32,25	1 1/8	1/8	100934
32,25	1 1/4	1/8	100935
32,25	1 3/8	1/8	100936
25	1	5/32	100930
25	1 1/4	5/32	100931
25	1 3/8	5/32	100932
25	1 1/2	5/32	100933

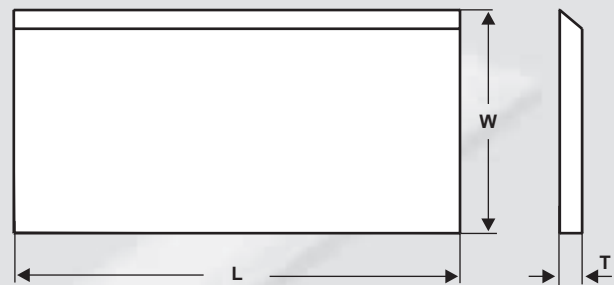
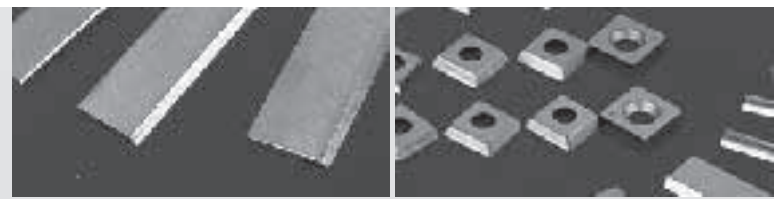
HSS planer knives
HSS Hobelmesser
Fers de raboteuse HSS
Coltelli da pialla in HSS
Cuchillas en HSS



L	W	T	Art.-Nr.	L	W	T	Art.-Nr.
mm	mm	mm		mm	mm	mm	
60.0	30.0	3.0	030152	60.0	35.0	3.0	030205
80.0	30.0	3.0	030153	80.0	35.0	3.0	030206
100.0	30.0	3.0	030154	100.0	35.0	3.0	030207
110.0	30.0	3.0	030156	110.0	35.0	3.0	030208
120.0	30.0	3.0	030157	120.0	35.0	3.0	030209
130.0	30.0	3.0	030159	130.0	35.0	3.0	030210
150.0	30.0	3.0	030162	150.0	35.0	3.0	030211
180.0	30.0	3.0	030165	180.0	35.0	3.0	030214
210.0	30.0	3.0	030168	210.0	35.0	3.0	030217
230.0	30.0	3.0	030171	230.0	35.0	3.0	030218
260.0	30.0	3.0	030174	260.0	35.0	3.0	030220
300.0	30.0	3.0	030175	300.0	35.0	3.0	048006
310.0	30.0	3.0	030176	310.0	35.0	3.0	030222
410.0	30.0	3.0	030183	410.0	35.0	3.0	030226
510.0	30.0	3.0	030187	510.0	35.0	3.0	030231
610.0	30.0	3.0	030191	610.0	35.0	3.0	030235
630.0	30.0	3.0	030192	630.0	35.0	3.0	030236
640.0	30.0	3.0	030194	640.0	35.0	3.0	030237
710.0	30.0	3.0	030198	710.0	35.0	3.0	030240
810.0	30.0	3.0	030201	810.0	35.0	3.0	030243
820.0	30.0	3.0	101051	820.0	35.0	3.0	101052

Other dimensions upon request.
Andere Abmessungen auf Anfrage.
D'autres dimensions sur demande.
Altri dimensioni a richiesta.
Otras dimensiones bajo demanda.

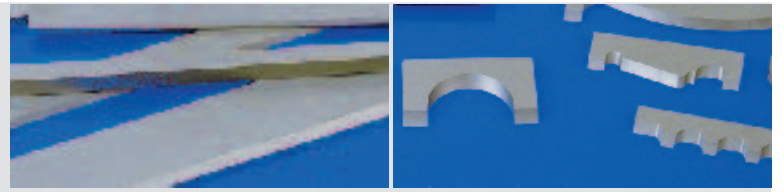
HSS planer knives
HSS Hobelmesser
Fers de raboteuse HSS
Coltelli da pialla in HSS
Cuchillas en HSS



L inch	W inch	T inch	Art.-Nr.
25	5/8	3/32	100697
25	5/8	1/8	100937
25	3/4	1/8	100938
25	1	1/8	100939
25	1 1/8	1/8	100941
25	1 1/4	1/8	100942
25	1 3/8	1/8	100943
25	1 1/2	1/8	100944
25	1	5/32	100945
25	1 1/4	5/32	100946
25	1 3/8	5/32	100947
25	1 1/2	5/32	100948
25	1 3/4	5/32	100949
25	2	5/32	100950
32	3/4	1/8	100951
32	1	1/8	100952
32	1 1/4	1/8	100953
32	1 3/8	1/8	100954
32	1 1/2	1/8	100955
32	1 1/8	5/32	100956
32	1 1/4	5/32	100957
32	1 3/8	5/32	100958
32	1 1/2	5/32	100959
32	1 3/4	5/32	100960
32	2	5/32	100961

Other dimensions upon request.
Andere Abmessungen auf Anfrage.
D'autres dimensions sur demande.
Altri dimensioni a richiesta.
Otras dimensiones bajo demanda.

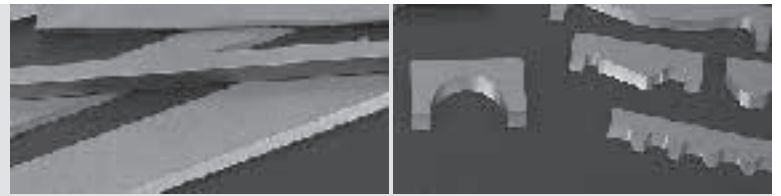





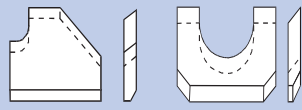
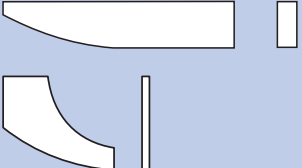
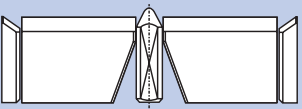
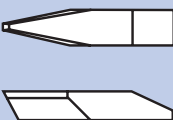

Strips, preforms, router bit tips, drill bits, finger joint tips, saw tips
Fräserplatten, Formplatten, Oberfräserplatten, Zylinderkopfbohrer, Sägezähne
Plaquettes à braser, ebauches pour mèches à défoncer, mèches à façonner et fraises, dents de scie
Placchette per frese, placchette sagomate per punte, punte per cerniere, dentelli per lame
Placas para equipar fresas, placas para herramientas soldadas, brocas estrella, dientes de sierra

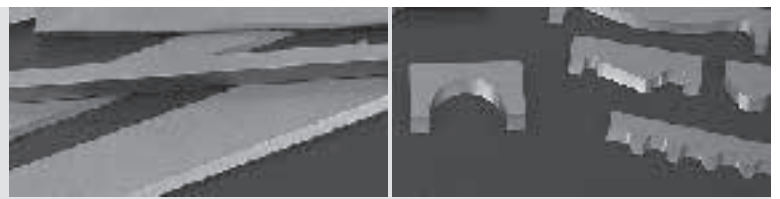




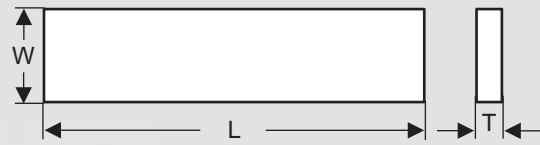


Bars, preforms, router bit tips, drill bits, finger joint tips, saw tips
Fräserplatten, Formplatten, Oberfräserplatten, Zylinderkopfbohrer, Sägezähne
Plaquettes à braser, ebauches pour mèches à défoncer, mèches à façonner et fraises, dents de scie
Placchette per frese, placchette sagomate per punte, punte per cerniere, dentelli per lame
Placas para equipar fresas, placas para herramientas soldadas, brocas estrella, dientes de sierra

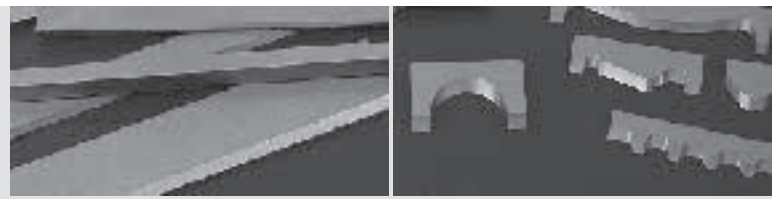
		Page Seite Page Pagina Página
	Carbide strips for brazed cutters Hartmetallplatten zur Fräserbestückung Plaquettes en carbure à braser Placchette in metallo duro per frese Placas de metal duro para equipar fresas	86 - 90
	Carbide tips for brazed cutters Formplatten zum Löten Plaquettes en carbure à braser Placchette per frese saldobrasate Placas para herramientas soldadas	91 - 92
	Carbide tips for router bits HM-Rohlinge für Oberfräser Ebauches pour mèches à défoncer Placchette sagomate per punte Placas de metal duro para equipar fresas	93
	Drill bits Zylinderkopfbohrer Mèches à façonner Punta per cerniere Brocas estrella	94 - 95
	Finger joint cutters Minizinkenfräser Fraises mini-aboutages Frese per giunzioni Fresas para ensamblar	95
	Tips for strobe saws and saw tips Stäbe für Wischersägen und Sägezähne Racleur de scies circulaire et dents de scie Barrette per rasanti di lame circolari e dentelli per lame Plaquita barreadora y dientes de sierra	96



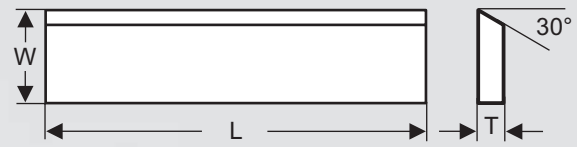
Carbide strips for brazed cutters
Hartmetallplatten zur Fräserbestückung
Plaquettes en carbure à braser
Placchette in metallo duro per frese
Placas de metal duro para equipar fresas



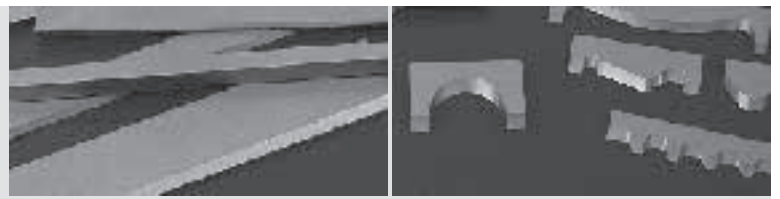
L mm	W mm	T mm	T06MF	T08MF	T10MG
310.0	8.0	2.0	039889	031190	029131
310.0	10.0	2.0	100785	031191	029132
310.0	12.0	2.0	039891	031192	029133
310.0	14.0	2.0	039892	031193	029136
310.0	16.0	2.0	039893	031194	029138
310.0	18.0	2.0	039894	031195	029139
310.0	20.0	2.0	039895	031196	029140
310.0	22.0	2.0	100792	050324	038192
310.0	25.0	2.0	039896	031197	029141
310.0	8.0	3.0	039899	024513	024515
310.0	10.0	3.0	039900	024517	024519
310.0	12.0	3.0	039901	024521	024523
310.0	14.0	3.0	039902	024525	024527
310.0	15.0	3.0	100798	035892	041072
310.0	16.0	3.0	039903	024529	024531
310.0	18.0	3.0	039904	024533	024535
310.0	20.0	3.0	039905	024537	024539
310.0	25.0	3.0	039906	024541	024543
310.0	30.0	3.0	039907	024545	024547
310.0	8.0	4.0	039909	024564	024566
310.0	10.0	4.0	039910	024568	024570
310.0	12.0	4.0	039911	024572	024574
310.0	14.0	4.0	039912	024576	024578
310.0	16.0	4.0	037636	024580	024582
310.0	18.0	4.0	037637	024584	024586
310.0	20.0	4.0	039913	024588	024590
310.0	25.0	4.0	039914	024592	024594
310.0	30.0	4.0	039915	024596	024598
310.0	8.0	5.0	039917	024625	024627
310.0	10.0	5.0	039918	024629	024631
310.0	12.0	5.0	039919	024633	024635
310.0	14.0	5.0	039920	024637	024639
310.0	16.0	5.0	039921	024641	024643
310.0	18.0	5.0	039922	024645	024647
310.0	20.0	5.0	039923	024649	024651
310.0	25.0	5.0	039924	024653	024655
310.0	30.0	5.0	039925	024657	024659



Carbide strips for brazed cutters
Hartmetallplatten zur Fräserbestückung
Plaquettes en carbure à braser
Placchette in metallo duro per frese
Placas de metal duro para equipar fresas



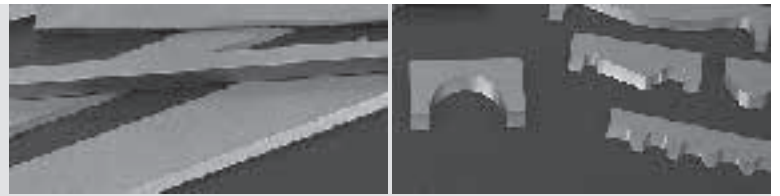
L mm	W mm	T mm	T06MF	T08MF	T10MG
310.0	8.0	3.0	039927	024723	024725
310.0	10.0	3.0	039928	024727	024729
310.0	12.0	3.0	039929	024731	024733
310.0	15.0	3.0	100827	038985	041080
310.0	20.0	3.0	039933	024747	024749
310.0	25.0	3.0	039934	024751	024753
310.0	30.0	3.0	039935	024755	024757
310.0	8.0	4.0	039937	024763	024765
310.0	10.0	4.0	039938	024767	024769
310.0	12.0	4.0	039939	024771	024773
310.0	14.0	4.0	039940	024775	024777
310.0	15.0	4.0	039459	049252	041081
310.0	16.0	4.0	039941	024779	024781
310.0	18.0	4.0	039942	024783	024785
310.0	20.0	4.0	039943	024787	024789
310.0	22.0	4.0	035925	049253	041082
310.0	25.0	4.0	039944	024791	024793
310.0	28.0	4.0	035926	049254	041083
310.0	30.0	4.0	039945	024795	024797
310.0	35.0	4.0	100275	050326	041084
310.0	8.0	5.0	039947	024803	024805
310.0	10.0	5.0	039948	024807	024809
310.0	12.0	5.0	039949	024811	024813
310.0	14.0	5.0	039950	024815	024817
310.0	16.0	5.0	039951	024819	024821
310.0	18.0	5.0	039952	024823	024825
310.0	20.0	5.0	039953	024827	024829
310.0	25.0	5.0	039954	024831	024833
310.0	30.0	5.0	039955	024835	024837
310.0	35.0	5.0	100843	051792	051793
310.0	10.0	6.0	024846	024847	024849
310.0	12.0	6.0	039959	024851	024853
310.0	16.0	6.0	039961	024859	024861
310.0	20.0	6.0	039963	024867	024869
310.0	25.0	6.0	039964	024871	024873
310.0	30.0	6.0	039965	024875	024877



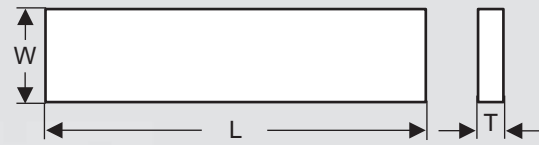
Carbide strips for brazed cutters
Hartmetallplatten zur Fräserbestückung
Plaquettes en carbure à braser
Placchette in metallo duro per frese
Placas de metal duro para equipar fresas



L mm	W mm	T mm	T06MF	T08MF	T10MG
310.0	10.0	3.0	100860	024887	024889
310.0	12.0	3.0	039969	024891	024893
310.0	14.0	3.0	039970	024895	024897
310.0	16.0	3.0	039971	024899	024901
310.0	18.0	3.0	039972	024903	024905
310.0	20.0	3.0	039973	024907	024909
310.0	25.0	3.0	039974	024911	024913
310.0	30.0	3.0	039975	024915	024917
310.0	10.0	4.0	039978	024933	024935
310.0	12.0	4.0	039979	024937	024939
310.0	14.0	4.0	039980	024941	024943
310.0	16.0	4.0	039981	024945	024947
310.0	18.0	4.0	039982	024949	024951
310.0	20.0	4.0	039983	024953	024955
310.0	25.0	4.0	100875	024957	024959
310.0	30.0	4.0	039985	024961	024963
310.0	35.0	4.0	100877	050600	041088
310.0	8.0	5.0	039987	024976	024978
310.0	10.0	5.0	039988	024980	024982
310.0	12.0	5.0	039990	024984	024986
310.0	14.0	5.0	039991	024988	024990
310.0	15.0	5.0	100882	035894	035897
310.0	16.0	5.0	039992	024992	024994
310.0	18.0	5.0	039993	024996	024998
310.0	20.0	5.0	039994	025000	025002
310.0	25.0	5.0	039995	025004	025006
310.0	30.0	5.0	039996	025008	025010
310.0	35.0	5.0	054692	051798	051799
200.0	40.0	5.0	100889	040307	039094
310.0	10.0	6.0	039999	025021	025023
310.0	12.0	6.0	040000	025025	025027
310.0	16.0	6.0	040002	025033	025035
310.0	20.0	6.0	040004	025041	025043
310.0	25.0	6.0	040005	025045	025047
310.0	30.0	6.0	040006	025049	025051

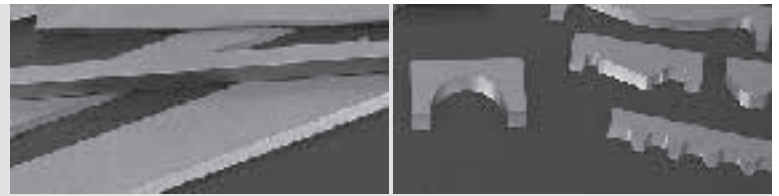


Carbide strips for brazed cutters
Hartmetallplatten zur Fräserbestückung
Plaquettes en carbure à braser
Placchette in metallo duro per frese
Placas de metal duro para equipar fresas



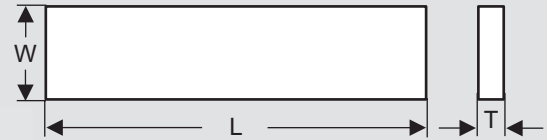
L	W	T	T06MF	T08MF	T10MG	TL15
mm	mm	mm				
165.0	6.0	3.0	024550	031269	029106	029314
165.0	8.0	3.0	024551	031270	029107	029315
165.0	10.0	3.0	024555	031271	029109	029317
165.0	12.0	3.0	024600	029657	029111	029319
165.0	14.0	3.0	024605	031272	029114	029321
165.0	16.0	3.0	024610	029658	029118	029325
165.0	18.0	3.0	024615	031273	029121	029327
165.0	20.0	3.0	024617	029659	029123	029329
165.0	25.0	3.0	024661	029661	029126	029331
165.0	30.0	3.0	024665	031274	029128	031335
165.0	6.0	4.0	031304	031276	031318	031336
165.0	8.0	4.0	024552	031277	031319	031337
165.0	10.0	4.0	024557	031278	031320	031338
165.0	12.0	4.0	024601	031279	029112	031339
165.0	14.0	4.0	031305	031280	029115	031340
165.0	15.0	4.0	024608	041354	041355	041356
165.0	16.0	4.0	024612	031281	029119	031341
165.0	18.0	4.0	031306	031282	031321	031342
165.0	20.0	4.0	024618	031283	029124	031343
165.0	25.0	4.0	024662	031284	031322	031344
165.0	30.0	4.0	024667	031285	031323	031345
165.0	6.0	5.0	031307	031286	031324	031346
165.0	8.0	5.0	024553	031287	029108	029316
165.0	10.0	5.0	024558	031288	029110	029318
165.0	12.0	5.0	024603	031289	029113	029320
165.0	14.0	5.0	031308	031290	031325	031347
165.0	16.0	5.0	024613	031291	029120	029326
165.0	18.0	5.0	024616	031292	029122	029328
165.0	20.0	5.0	024619	029660	029125	029330
165.0	25.0	5.0	024663	031293	029127	029332
165.0	30.0	5.0	024668	029662	029129	029333

Other grades upon request.
 Andere Sorten auf Anfrage.
 D'autres nuances sur demande.
 Altri tipi a richiesta.
 Otras calidades bajo demanda.



Carbide strips for brazed cutters
Hartmetallplatten zur Fräserbestückung
Plaquettes en carbure à braser
Placchette in metallo duro per frese
Placas de metal duro para equipar fresas

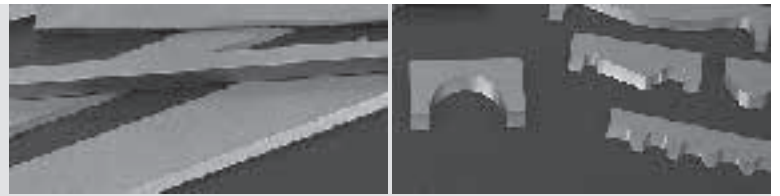
US-Style



Style	L inch	W inch	T inch	T06MF C3	T08MF C2	T06M	T10MG	TL15
STB 310	6	5/16	3/32	025066	060188	062487	029145	060397
STB 312	6	3/8	3/32	025070	060189	062390	029149	037315
STB 316	6	1/2	3/32	025075	060190	062244	029154	038661
STB 320	6	5/8	3/32	025080	060191	062183	029159	060398
STB 324	6	3/4	3/32	025085	060371	062245	029164	060399
STB 328	6	7/8	3/32	025090	060192	062246	029169	037316
STB 332	6	1	3/32	025095	060193	062184	029174	037314
STB 336	6	1 1/8	3/32	025100	060194	062247	029179	060400
STB 340	6	1 1/4	3/32	025106	060195	062488	029184	037312
STB 344	6	1 3/8	3/32	060367	030368	062501	060369	060401
STB 348	6	1 1/2	3/32	025112	060196	062489	029190	037313
STB 410	6	5/16	1/8	025067	032651	062490	029146	029367
STB 412	6	3/8	1/8	025071	032621	061884	029150	029371
STB 416	6	1/2	1/8	025076	032622	061779	029155	029376
STB 420	6	5/8	1/8	025081	032623	061778	029160	029381
STB 424	6	3/4	1/8	025086	032624	061780	029165	029386
STB 428	6	7/8	1/8	025091	032625	061781	029170	029391
STB 432	6	1	1/8	025096	032626	061777	029175	029396
STB 436	6	1 1/8	1/8	025101	032627	061782	029180	029401
STB 440	6	1 1/4	1/8	025107	032628	062253	029185	029406
STB 444	6	1 3/8	1/8	025111	032629	062502	029189	031564
STB 448	6	1 1/2	1/8	025113	032630	061783	029191	029411
STB 510	6	5/16	5/32	025068	032631	062505	029147	029368
STB 512	6	3/8	5/32	025072	032632	062506	029151	029372
STB 516	6	1/2	5/32	025077	032633	062507	029156	029377
STB 520	6	5/8	5/32	025082	032634	062508	029161	029382
STB 524	6	3/4	5/32	025087	032635	062509	029166	029387
STB 528	6	7/8	5/32	025092	032636	062510	029171	029392
STB 532	6	1	5/32	025097	032637	062511	029176	029397
STB 536	6	1 1/8	5/32	025102	032638	062512	029181	029402
STB 540	6	1 1/4	5/32	025108	032639	062513	029186	029407
STB 544	6	1 3/8	5/32	060393	060391	062514	060395	060402
STB 548	6	1 1/2	5/32	025114	032640	062515	029192	029412
STB 610	6	5/16	3/16	025069	032641	062516	029148	029369
STB 612	6	3/8	3/16	025073	032642	062517	029152	029373
STB 616	6	1/2	3/16	025078	029663	062518	029157	029378
STB 620	6	5/8	3/16	025083	032643	062519	029162	029383
STB 624	6	3/4	3/16	025088	032644	062520	029167	029388
STB 628	6	7/8	3/16	025093	032645	062521	029172	029393
STB 632	6	1	3/16	025098	032646	062522	029177	029398
STB 636	6	1 1/8	3/16	025103	060197	062523	029182	060403
STB 640	6	1 1/4	3/16	025109	032647	062524	029187	029408
STB 644	6	1 3/8	3/16	060394	060392	062525	060396	060404
STB 648	6	1 1/2	3/16	025115	032648	062526	029193	029413

Other grades upon request.
 Andere Sorten auf Anfrage.
 D'autres nuances sur demande.
 Altri tipi a richiesta.
 Otras calidades bajo demanda.





Carbide tips for brazed cutters - quick delivery service

Formplatten zum Löten - Schnelldienst

Plaquettes en carbure à braser - service rapide

Placchette per frese saldobrasate - servizio rapido

Placas para herramientas soldadas - entrega servicio rapido



Preforms for brazed cutters

Using preformed tips for your brazed cutters you will save the expensive roughing time and grinding wheel cost. TIGRA can supply almost any kind of preformed tip, according to the customer's drawing or DXF file. Small quantities for urgent special tools can be delivered from our quick delivery service within 2-3 working days.

Formplatten für gelötete Fräser

Durch die Verwendung vorgeformter Hartmetallplatten sparen Sie teure Schruppzeiten und Kosten für die Schleifscheiben. TIGRA liefert nahezu jede vorgeformte Platte nach Kundenzeichnung oder DXF-Datei. Kleinserien für eilige Sonderwerkzeuge liefert unser Schnelldienst innerhalb von 2-3 Arbeitstagen.

Supports de matrice pour fraises brasées

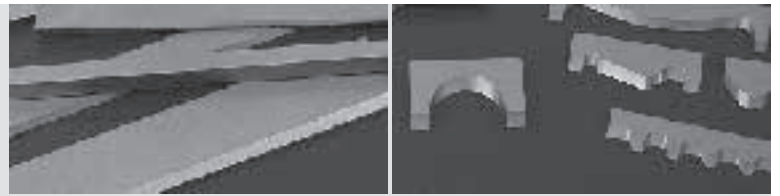
Grâce à l'utilisation de supports au carbure préalablement façonnés, plus besoin de coûteuses opérations d'ebardage ni de meules abrasives. TIGRA peut fournir pratiquement n'importe quel support préfaçonné d'après le dessin du client ou un fichier DXF. Notre services d'urgence livre de petites séries pour les outils spéciaux urgents en 2-3 jours ouvrés.

Placchette per frese saldobrasate

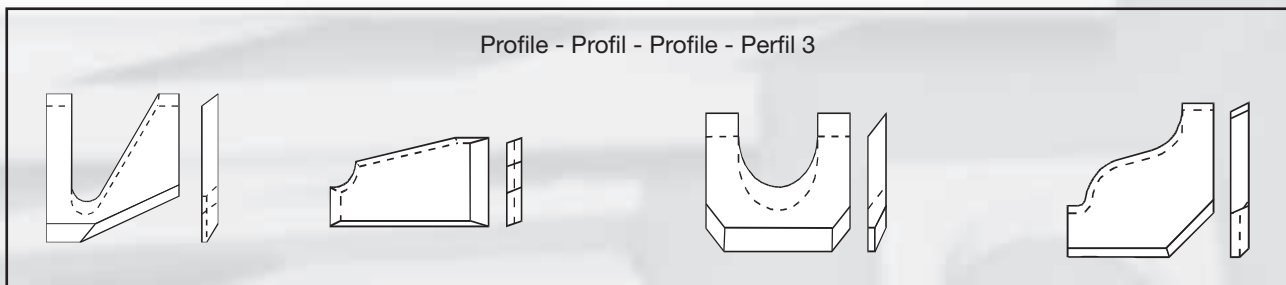
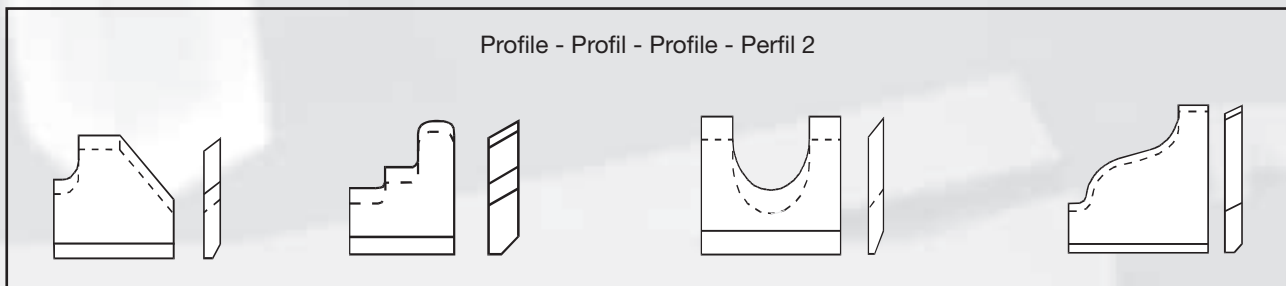
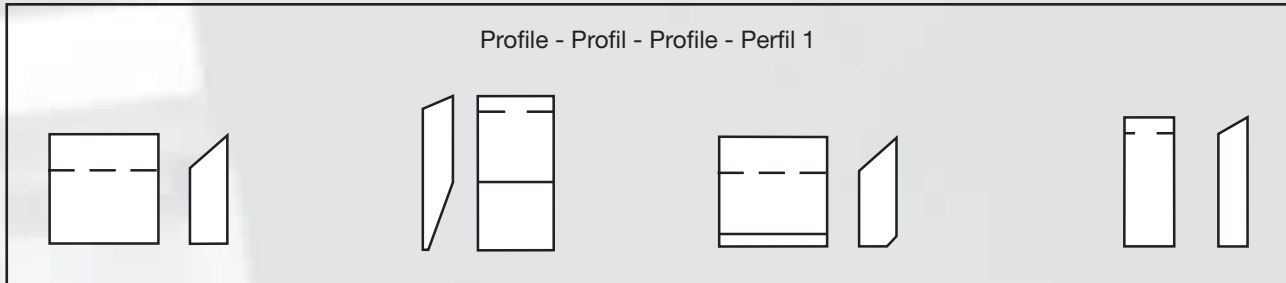
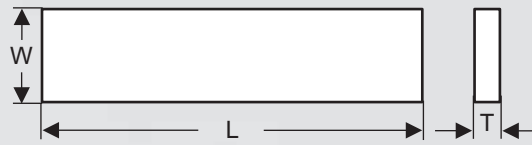
Con l'uso delle placchette preformate vi risparmiate non solo la sgrossatura bensì anche i costi delle mole. TIGRA può fornire quasi ogni tipo di placchette preformate secondo le vostre richieste ed esigenze (documenti DXF; schizzi). Per ordini urgenti di piccole quantità riguardanti utensili particolari siamo in grado di fornirvi la merce nel arco di 2-3 giorni lavorativi.

Placas de molde para fresas soldadas

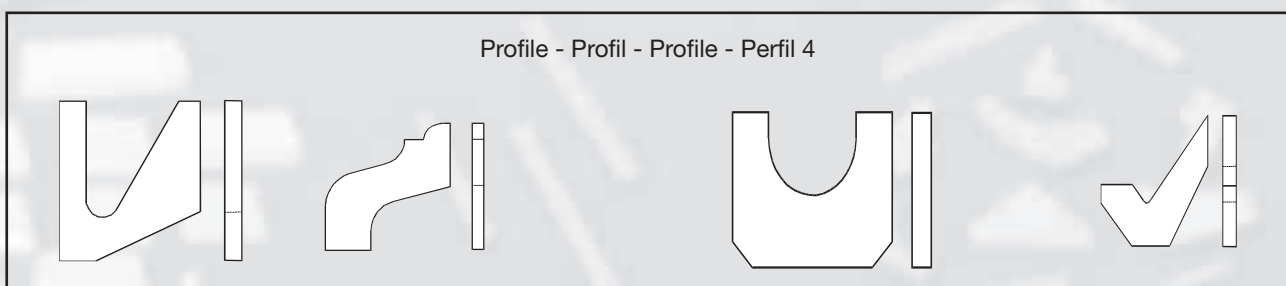
El empleo de placas de metal duro preformadas le permitirá ahorrarse la costosa fase de desbastado y reducir el consumo de muelas. TIGRA puede fabricar prácticamente cualquier tipo de placa preformada en base al plano o fichero DXF del cliente. Si necesitara una herramienta especial con urgencia, nuestro servicio rápido es capaz de fabricar un lote de pocas unidades en 2-3 días laborables.



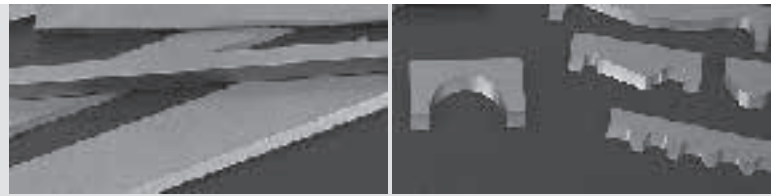
Carbide tips for brazed cutters
Formplatten zum Lötten
Plaquettes en carbure à braser
Placchette per frese saldobrasate
Placas para herramientas soldadas



The profile groups 1, 2 and 3 are with chamfers in the profile and/or at the bottom.
 Die Profilgruppen 1, 2 und 3 haben Fasen im Profil und/oder an der Anschlagkante.
 Les groupes de profils 1, 2 et 3 ont des biseaux dans le profil et/ou au bord de butée.
 I gruppi di profili 1, 2 e 3 sono provvisti di smussi nel profilo e/o nello spigolo di battuta.
 Los grupos de perfil tienen 1, 2 y 3 tanto un perfil, como la base biselados.



Profile group 4 is without any chamfers and therefore less expensive!
 Profilgruppe 4 hat keinerlei Fasen. Der Preis dafür ist deutlich günstiger!
 Les groupe de profils 4 n'a pas de biseaux. Le prix de ce modèle est de ce fait bien plus avantageux!
 Il gruppo di profili 4 non è provvisto di smussi ed ha pertanto un prezzo notevolmente inferiore!
 El grupo de perfil 4 non tiene ningun bisel. El precio de este modelo sera muy ventajoso para vds!



Carbide tips for router bits
HM-Rohlinge für Oberfräser
Ebauches pour mèches à défoncer
Placchette sagomate per punte
Placas de metal duro para equipar fresas



Preforms for router bits

Carbide tips for router bits are available preformed in almost any sizes or executions, as per customer's drawing or DXF file, also for small quantities. From your production cost for router bits this will save the cost for cutting, wire cutting, roughing and diamond wheels. Small quantities for urgent special tools are supplied from our quick delivery service within only a few working days.

Platten für Oberfräser

Hartmetallplatten für Oberfräser sind vorgeformt in fast allen Größen und Ausführungen nach Kundenzeichnung oder DXF-Datei lieferbar, auch für Kleinserien. So sparen Sie auch bei der Herstellung von Oberfräsern die Kosten für das Trennen, Drahtschneiden oder Schruppen sowie Kosten für Schleifscheiben. Kleinserien für eilige Sonderwerkzeuge liefert unser Schnelldienst innerhalb von wenigen Arbeitstagen.

Plaquettes pour défonceuse

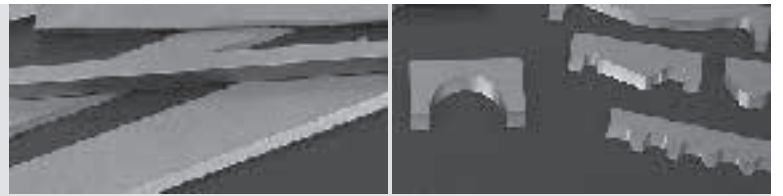
Les plaquettes au carbure pour défonceuse peuvent être livrées préfaçonnées dans pratiquement toutes les tailles et exécutions d'après le dessin du client ou un fichier DXF, même en petites séries. Vous économisez ainsi les frais de tronçonnage, de meules abrasive même lors de la fabrication d'outil pour défonceuses. Notre service d'urgence livre de petites séries pour les outils spéciaux urgents en quelques jours ouvrés.

Placchette sagomate per punte

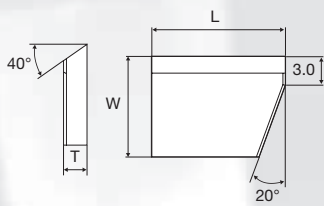
Le placchette sagomate per punte sono disponibili in quasi ogni misura secondo disegno o documento DXF, anche in quantità minime. Risparmiate i costi di tagli, sgrossatura e delle mole per la produzione delle punte. Per ordini urgenti di piccole quantità riguardanti utensili particolari siamo in grado di fornirvi la merce in pochi giorni lavorativi.

Placas para fresas de cajeadora

Podemos suministrar placas de metal duro preformadas para fresas de cajeadora de cualquier tamaño y modelo en base al plano o diseño en formato DXF del cliente, incluso lotes de volumen reducido. Se ahorrará así las operaciones de corte, electroerosión o debastado y podrá reducir el consumo de muelas. Si necesitara una herramienta especial con urgencia, nuestro servicio rápido es capaz de fabricar un lote de tamaño reducido en pocos días.

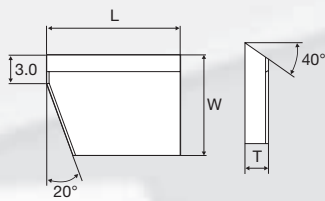


Drill bits
Zylinderkopfbohrer
Mèches à façonner
Punte per cerniere
Brocas estrella

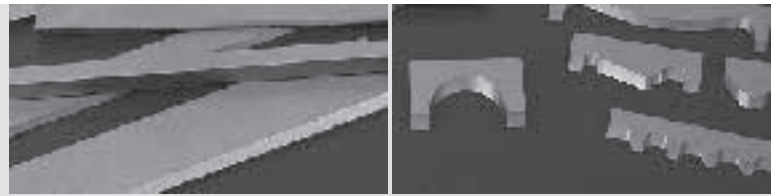


Left, links, gauche, sinistra, izqiera

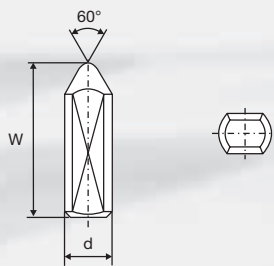
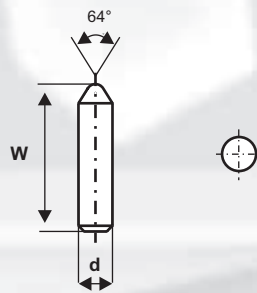
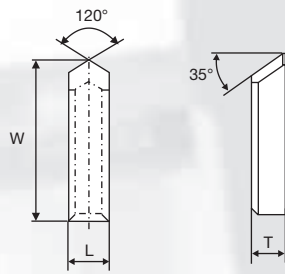
diam	L mm	W mm	T mm	T06MF
15.0	6.5	8.5	2.5	032657
16.0	7.0	10.5	2.5	032658
18.0	8.0	10.5	2.5	032659
20.0	9.0	10.5	2.5	032660
22.0	10.0	10.5	2.5	032661
23.0	10.5	10.5	2.5	032662
24.0	11.0	10.5	2.5	032663
25.0	11.5	10.5	2.5	032664
26.0	12.0	10.5	2.5	032665
28.0	13.0	10.5	2.5	032666
30.0	14.0	10.5	2.5	032667
32.0	15.0	10.5	2.5	032668
34.0	16.0	10.5	2.5	032669
35.0	16.5	10.5	2.5	032670
38.0	18.0	10.5	2.5	032671
40.0	19.0	10.5	2.5	032672
45.0	21.5	10.5	2.5	032151
50.0	24.0	10.5	2.5	032673
55.0	26.5	10.5	2.5	032674
60.0	29.0	10.5	2.5	032675
15.0	6.5	8.5	2.5	032676
16.0	7.0	10.5	2.5	032677
18.0	8.0	10.5	2.5	032678
20.0	9.0	10.5	2.5	032679
22.0	10.0	10.5	2.5	032680
23.0	10.5	10.5	2.5	032681
24.0	11.0	10.5	2.5	032682
25.0	11.5	10.5	2.5	032683
26.0	12.0	10.5	2.5	032684
28.0	13.0	10.5	2.5	032685
30.0	14.0	10.5	2.5	032686
32.0	15.0	10.5	2.5	032687
34.0	16.0	10.5	2.5	032688
35.0	16.5	10.5	2.5	032689
38.0	18.0	10.5	2.5	032690
40.0	19.0	10.5	2.5	032691
45.0	21.5	10.5	2.5	032692
50.0	24.0	10.5	2.5	032693
55.0	26.5	10.5	2.5	032694
60.0	29.0	10.5	2.5	032695



Right, rechts, droite, destra, derecha



Drill bits
Zylinderkopfbohrer
Mèches à façonner
Punte per cerniere
Brocas estrella

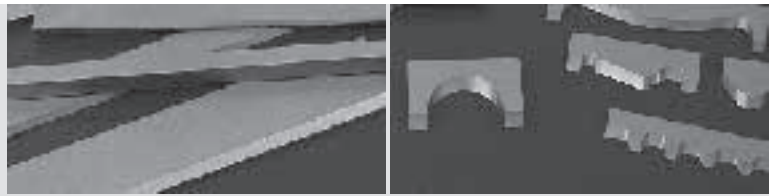


d	L mm	W mm	T mm	T06MF
	3.0	12.0	2.5	032702
	4.0	13.0	2.5	032703
3.0		13.0		055341
4.0		13.0		032704

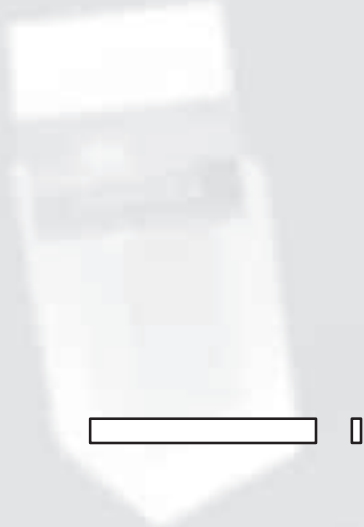
Finger joint cutters
Minizinkenfräser
Fraises mini-aboutages
Frese per giunzioni
Fresas para ensamblar



L mm	W mm	T mm	T08MF	T10MG
4.5	28.0	4.1	029105	041997



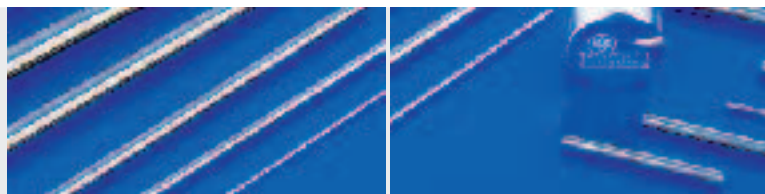
Tips for strobe saws
Stäbe für Wischersägen
Racleurs de scies circulaire
Barrette per rasanti di lame circolari
Plaquita barredora



L	W	T	T06MF
mm	mm	mm	
30.0	3.0	2.0	043520
30.0	3.2	2.0	043518
30.0	3.5	2.0	043514
30.0	4.0	2.0	043521
40.0	3.0	2.0	043522
40.0	3.2	2.0	043519
40.0	3.5	2.0	043516
40.0	4.0	2.0	043523
40.0	4.4	2.0	043524
40.0	5.0	2.0	043525

Saw tips
Sägezähne
Dents de scie
Dentelli per lame
Dientes de sierra

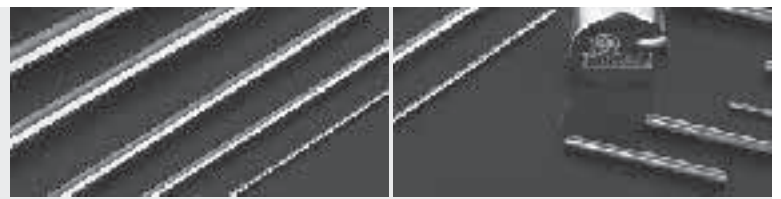
Please require our separate folder.
 Bitte verlangen Sie unser separates Informationsblatt.
 S.v.p. demandez notre brochure d'information.
 Per favore interpellateci per ulteriori informazioni.
 Pedir folha de informacion.



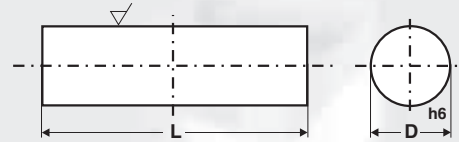
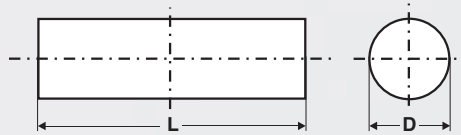
Rods
Rundstäbe
Barreaux cylindriques
Cilindri
Barras redondas







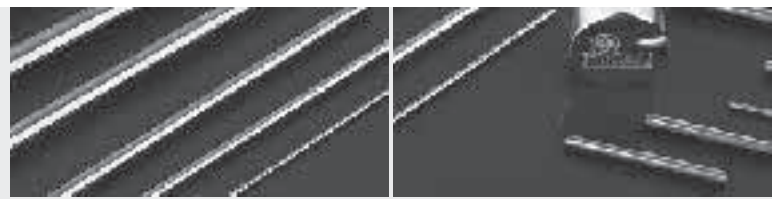
Rods
Rundstäbe
Barreaux cylindriques
Cilindri
Barras redondas



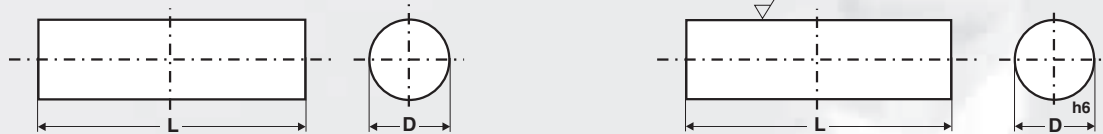
L = 325 + 5 mm as sintered / roh / brut / rezzo / en bruto					
D	T10MG	T06MG	D	T10MG	T06MG
mm			mm		
1.2	035472		14.8	035494	
1.7	035473		15.3	035495	
2.2	035474		15.8	035496	
2.7	035475		16.3	029700	053096
3.2	029686	032541	16.8	035497	
3.7	035476		17.3	035498	
4.2	029688	032542	17.8	036511	
4.7	035477		18.3	029702	
5.2	034420	036482	18.8	036514	
5.7	035478		19.3	035500	
6.2	029690	032543	19.8	036515	
6.7	035479		20.3	029704	053098
7.2	035480	036485	21.3	035501	
7.7	035481		22.3	035503	036503
8.2	029692	032544	23.3	035504	
8.7	035482		24.3	035505	
9.3	035483		25.3	029706	
9.8	035484		25.8	036525	
10.3	029694	053093	26.3	035506	
10.8	035485		27.3	036527	
11.3	035486		28.3	035507	036507
11.8	035488		29.3	036529	
12.3	029696	053094	30.3	035508	
12.8	035490		31.3	036531	
13.3	035492		32.3	035509	
13.8	035493		35.5	036533	
14.3	029698	053095			

L = 325 + 5 mm ground / geschliffen / affutée / rettificato / afilado					
D	T10MG	T06MG	D	T10MG	T06MG
mm			mm		
1.0	035517		16.0	029722	029721
1.5	035518		16.5	035539	
2.0	035519		17.0	035540	
2.5	035520		17.5	036571	
3.0	029708	029707	18.0	029724	029723
3.5	035521		18.5	036573	
4.0	029710	029709	19.0	035541	
4.5	035522		19.5	036575	
5.0	034802	036541	20.0	029726	029725
5.5	035523		20.5	036577	
6.0	029712	029711	21.0	035542	
6.5	035524		21.5	036579	
7.0	035525	036544	22.0	035543	036562
7.5	035526		22.5	036581	
8.0	029714	029713	23.0	035544	
8.5	035527		23.5	036583	
9.0	035528		24.0	035545	
9.5	035529		25.0	029728	029727
10.0	029716	029715	25.5	036585	
10.5	035530		26.0	035546	
11.0	035531		27.0	036587	
11.5	035532		28.0	035547	036566
12.0	029718	029717	29.0	036589	
12.5	035533		30.0	035548	
13.0	035534		31.0	036591	
13.5	035535		32.0	035549	
14.0	029720	029719	35.0	035552	
14.5	035536				
15.0	035537				
15.5	035538				

Other grades and dimensions upon request.
 Andere Sorten und Abmessungen auf Anfrage.
 D'autres nuances et dimensions sur demande.
 Altri tipi e dimensioni a richiesta.
 Otras calidades y dimensiones bajo demanda.



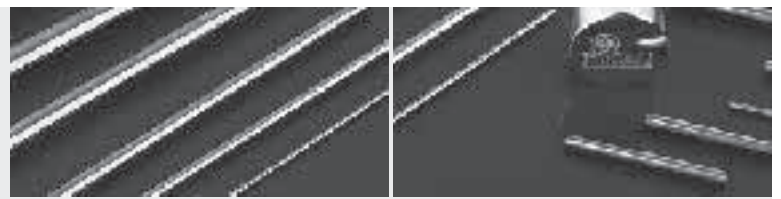
Rods
Rundstäbe
Barreaux cylindriques
Cilindri
Barras redondas



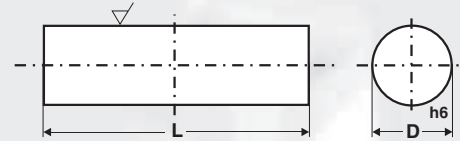
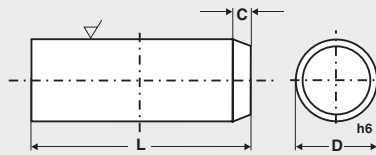
L = 100 + 1 mm as sintered / roh / brut / rezzo / en bruto						L = 100 + 1 mm ground / geschliffen / affutée / rettificato / afilado					
D	T10MG	T06MG	D	T10MG	T06MG	D	T10MG	T06MG	D	T10MG	T06MG
mm			mm			mm			mm		
1.2	036169	036225	15.3	036280	036279	1.0	036171	036170	13.0	036413	036412
1.7	036361	036227	16.3	034148	034128	1.5	036366	036165	14.0	034186	034166
2.2	036362	036228	17.3	036289	036287	2.0	036368	036367	15.0	036421	036420
2.7	036363	036229	18.3	034150	034130	2.5	036370	036369	16.0	034187	034167
3.2	036364	036230	19.3	036298	036297	3.0	036372	036371	17.0	036429	036428
3.7	036232	036231	20.3	034153	034133	3.5	036374	036373	18.0	034189	034169
4.2	036234	036233	21.3	036306	036305	4.0	036376	036375	19.0	036437	036436
4.7	036236	036235	22.3	036310	036309	4.5	036378	036377	20.0	034192	034172
5.2	036239	036237	23.3	036314	036313	5.0	036380	036379	21.0	036445	036444
5.7	036242	036241	24.3	036318	036317	5.5	036382	036381	22.0	036449	036448
6.2	036244	036243	25.3	036320	036319	6.0	036384	036383	23.0	036453	036452
6.7	036246	036245	26.3	036324	036323	6.5	036386	036385	24.0	036457	036456
7.2	036248	036247	27.3	036326	036325	7.0	036388	036387	25.0	036459	036458
7.7	036250	036249	28.3	036328	036327	7.5	036390	036389	26.0	036463	036462
8.2	036252	036251	29.3	036330	036329	8.0	036392	036391	27.0	036465	036464
8.7	036254	036253	30.3	036332	036331	8.5	036394	036393	28.0	036467	036466
9.3	036256	036255	31.3	036334	036333	9.0	036396	036395	29.0	036469	036468
9.8	036258	036257	32.3	036336	036335	9.5	036398	036397	30.0	036471	036470
10.3	034144	034124				10.0	034183	036399	31.0	036473	036472
10.8	036262	036261				10.5	036403	036402	32.0	036475	036474
11.3	036264	036263				11.0	036405	036404			
12.3	034146	034126				11.5	036407	036406			
13.3	036272	036271				12.0	034185	034165			
14.3	034147	034127				12.5	036411	036410			

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 Otras calidades y dimensiones bajo demanda.





Rods
Rundstäbe
Barreaux cylindriques
Cilindri
Barras redondas

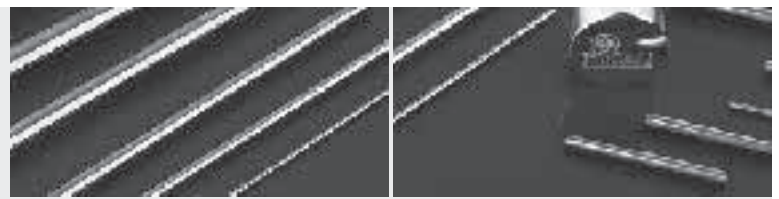


with chamfer / mit Fase / avec chanfrein /
 con smusso / con chaflan

New !

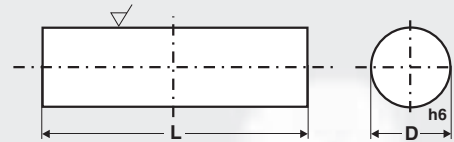
D	L	C	T10MG	T06MG	D	L	T10MG	T06MG
mm	mm	mm			mm	mm		
3	32.5	0.3	053362	100979	3.0	50.0	034177	055445
	38.0	0.3	053363	100980	3.5	50.0	039103	101011
	57.0	0.3	053364	100981	4.0	50.0	034178	034158
4	38.0	0.3	053365	100982	4.0	55.0	039104	101012
	40.0	0.3	053366	100983	4.0	60.0	041480	101013
	50.0	0.3	053367	100984	4.5	55.0	039105	101014
	57.0	0.3	053368	100985	5.0	50.0	034179	034159
5	38.0	0.6	053369	100986	5.0	55.0	039106	101015
	50.0	0.6	053370	100987	6.0	55.0	039107	101016
	57.0	0.6	053371	100988	6.0	60.0	034180	034160
6	50.0	0.6	053372	100989	8.0	70.0	038349	101017
	54.0	0.6	053373	100990	8.0	75.0	041481	101018
	57.0	0.6	053374	100991	8.0	80.0	034181	034161
8	58.0	0.6	053375	100992	10.0	70.0	038350	101019
	60.0	0.6	053376	100994	10.0	75.0	038351	055813
	63.0	0.6	053377	100995	12.0	70.0	038732	100760
	70.0	0.6	053378	100996	12.0	80.0	034184	053694
10	66.0	0.6	053379	100997	12.0	90.0	038352	101020
	70.0	0.6	053380	100998	14.0	90.0	041482	101022
	72.0	0.6	053381	100999	14.0	110.0	038353	101023
12	70.0	0.8	053382	101000	16.0	90.0	038354	101024
	73.0	0.8	053383	101001	16.0	110.0	038355	101025
	83.0	0.8	053384	101002	16.0	120.0	034188	034168
14	75.0	0.8	053385	101003	16.0	140.0	038356	101026
	83.0	0.8	053386	101004	18.0	115.0	038357	101027
16	82.0	0.8	053387	101005	18.0	120.0	034190	034170
	92.0	0.8	053388	101006	20.0	115.0	038358	101028
18	84.0	0.8	053389	101007	20.0	120.0	034193	034173
	92.0	0.8	053390	101008	20.0	135.0	039115	054819
20	92.0	1.0	053391	101009	20.0	140.0	038359	101029
	104.0	1.0	053392	101010				

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Rods
Rundstäbe
Barreaux cylindriques
Cilindri
Barras redondas

US-Style



D	L	T10MG	T06MG
inch	inch		
1/8	12 1/4	050139	054926
5/32	12 1/4	050140	054927
3/16	12 1/4	050147	054929
7/32	12 1/4	050148	054930
15/64	12 1/4	050149	054931
1/4	12 1/4	050150	054821
5/16	12 1/4	050151	054933
3/8	12 1/4	050152	054934
7/16	12 1/4	050153	054935
1/2	12 1/4	050154	054936
9/16	12 1/4	050155	054937
5/8	12 1/4	050156	054939
3/4	12 1/4	050157	054822
1	12 1/4	050158	054824

D	L	T10MG	T06MG
inch	inch		
1/8	1 1/2	049465	054851
1/8	2	049466	054852
1/8	2 1/2	049467	054853
1/8	3	050160	054854
1/8	4	049632	054855
1/8	6	049469	054856
5/32	3	049470	054857
3/16	1 1/2	049471	054858
3/16	2	049472	054859
3/16	2 1/2	050165	054860
1/4	1 1/2	049474	054873
1/4	2	049475	054861
1/4	2 1/2	049476	053113
1/4	3	050169	053114
1/4	4	050170	054862
3/8	2 1/2	049477	054863
3/8	3	049478	053115
3/8	4	049479	054864
3/8	6	049480	054865
1/2	2	050175	054866
1/2	2 1/2	050176	054867
1/2	3	049481	053116
1/2	3 1/2	045137	053117
1/2	4	049482	054868
5/8	3	049483	054869
5/8	3 1/2	050180	054870
5/8	4	049484	053118
5/8	5	050182	054871
3/4	4	050183	053119
1	5	050184	054872

Applications of TIGRA carbide grades:

T10MG (ISO-Code K20-K40):

Micrograin alloy with medium abrasive resistance and high toughness.

Both grades are well suited as blanks for drilling, turning, routing and reaming of alloyed steel, corrosion and heat resistant steel, non ferrous metals, plastics, foils, components for cold forming and stamping technology, powderpress technology and valve components.

T06MG (ISO-Code K10):

Micrograin alloy with high abrasive resistance and good toughness.

Other grades and dimensions upon request.
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 Altri tipi e dimensioni a richiesta.
 Otras calidades y dimensiones bajo demanda.

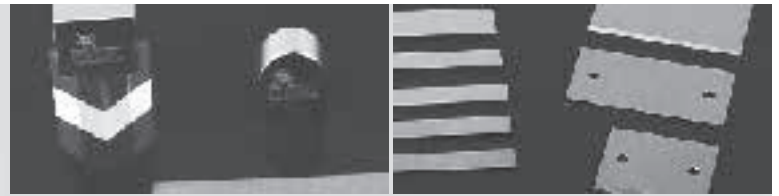




TIGRAAlloy blanks, strips and saw tips
TIGRAAlloy Blanketts, Fräserplatten und Sägezähne
TIGRAAlloy plaquettes à profiler, plaquettes à braser et dents de scie
TIGRAAlloy placchette da profilare, placchette per frese e dentelli per lame
TIGRAAlloy piezas en bruto para perfilar, placas para equipar fresas y dientes de sierra



TIGRALloy



TIGRALloy, a cutting material, consisting of a mixture of hard chromium and tungsten carbide that are embedded in a tough cobalt matrix. The grain size of the carbides is very small and they are consistently embedded in the cobalt. This results in an ideal combination of high hardness and high toughness. Therefore TIGRALloy is an ideal cutting material for many kinds of solid wood. In addition to the good wear resistance, there is a high heat resistance. Very good brazeability affords the opportunity to grind extremely sharp cutting edges. TIGRALloy can be used for the production of ground knives and blanks and for the production of brazed cutterheads.

Characteristics

Hardness: 60 HRC
Heat resistance: upto 800°C / 1500°F
Non magnetic
Highly corrosion resistant
Extremely shock proof

TIGRALloy besteht aus harten Chrom- und Wolframkarbiden, die in einer zähen Kobaltmatrix eingelagert sind. Die Karbide sind dabei besonders fein und gleichmäßig verteilt. Daraus entsteht eine ideale Kombination von hoher Härte und besonders guter Zähigkeit. TIGRALloy ist damit ein idealer Schneidstoff für die Bearbeitung vieler Massivhölzer. Zu einer hohen Verschleißfestigkeit kommt eine hohe Hitzebeständigkeit, eine sehr gute Lötbarkeit und die Möglichkeit, mit sehr scharfen Schneidkanten zu arbeiten. TIGRALloy eignet sich zur Herstellung von geschliffenen Messern und Blanketts jeder Form und zur Herstellung gelöteter Fräser.

Eigenschaften

Härte: 60 HRC
Hitzebeständigkeit: bis 800°C
Unmagnetisch
Sehr korrosionsbeständig
Hohe Bruchfestigkeit

TIGRALloy est constitué de carbures de chrome et de tungstène durs qui sont logés dans une matrice de cobalt résistante. Les carbures sont ici répartis de manière particulièrement précise et régulière, ce qui offre une combinaison idéale de haute dureté et de résistance particulièrement élevée. TIGRALloy est ainsi un matériau de coupe idéal pour l'usinage de nombreux bois massifs. Outre une grande résistance à l'usure, il présente également une forte résistance à l'échauffement, une excellente brasabilité et la possibilité de travailler avec des arêtes de coupe très vives. TIGRALloy est bien adaptée pour la fabrication de fers et d'ébauches rectifiés de toutes formes et pour la fabrication de fraises brasées.

Propriétés:

Dureté: 60 HRC
Résistance à la chaleur: jusqu'à 800°C
Amagnétique
Très résistant à la corrosion
Grande résistance à la rupture

TIGRALloy



TIGRALloy è composta da carburo duro di cromo e tungsteno, incastonati in una matrice di cobalto tenace, fini e distribuiti costantemente che costituiscono la combinazione ideale di durezza e di resistenza. TIGRALloy è oltretutto materiale ideale al taglio di molti tipi particolari di legno. La buona resistenza all'usura nonchè la grande resistenza termica e alla saldobrasatura permettono l'uso di taglienti molto affilati. TIGRALloy può essere usato per la produzione delle lame, delle placchette da profilare di ogni tipo e per la produzione delle frese saldobrasate.

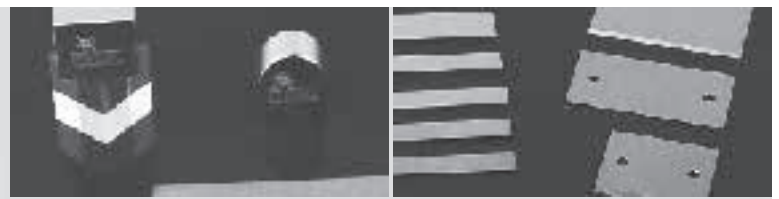
Caratteristiche

Durezza: 60 HRC
Resistenza termica: fino a 800°C
Non magnetico
Alta resistenza alla corrosione
Alta resistenza alla flessione

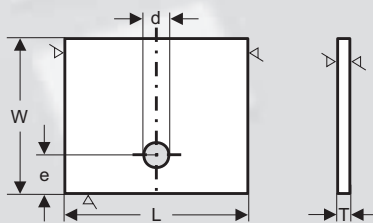
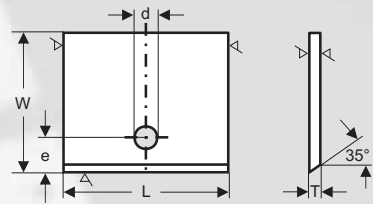
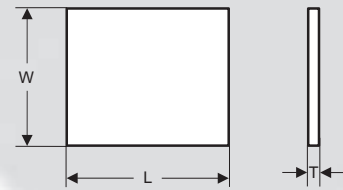
TIGRALloy se compone de carburos duros de cromo y volframio que están depositados en una matriz de cobalto resistente. Estos carburos están distribuidos de manera muy fina y homogénea. Así se consigue una combinación ideal de alta dureza y de resistencia especialmente buena. Por lo tanto, TIGRALloy es un material de corte ideal para el labrado de muchas maderas macizas. A esa alta resistencia de desgaste se añade una alta resistencia refractaria, una buena soldadura y la posibilidad de trabajar con aristas cortantes muy vivas. TIGRALloy es apropiado para la fabricación de cuchillas afiladas y placas de cualquier forma y para la fabricación de frezas soldadas.

Propiedades

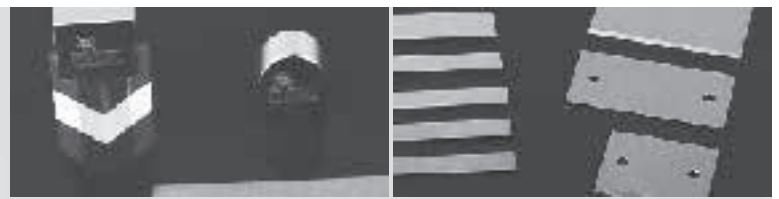
Durezza: 60 HRC
Resistencia a calor hasta 800°C
Sin magnetismo
Alta resistencia a la corrosión
Alte resistencia a la rotura



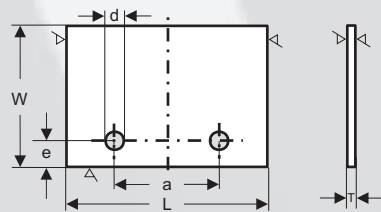
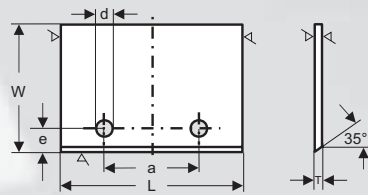
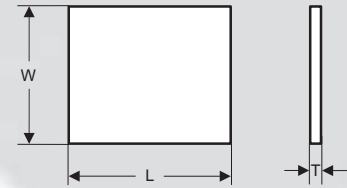
TIGRALloy - Blanks for profiling
TIGRALloy - Blanketts zum Profilieren
TIGRALloy - Plaquettes à profiler
TIGRALloy - Placchette da profilare
TIGRALloy - Piezas en bruto para perfilar



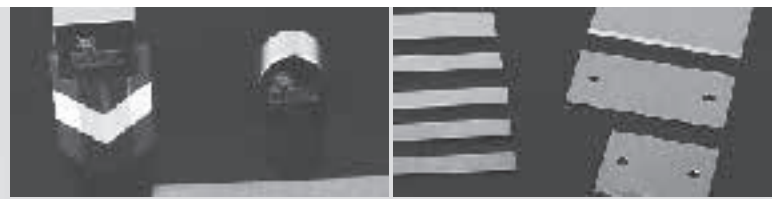
L	W	T	d	a	e	TIGRALloy
mm	mm	mm	mm	mm	mm	
15.0	20.4	2.0	4.1		6.3	050254
15.0	25.4	2.0	4.1		6.3	062363
15.0	30.4	2.0	4.1		6.3	050432
20.0	20.4	2.0	4.1		6.3	050433
20.0	25.4	2.0	4.1		6.3	050434
20.0	30.4	2.0	4.1		6.3	050435
25.0	20.4	2.0	4.1		6.3	061898
25.0	25.4	2.0	4.1		6.3	050437
25.0	30.4	2.0	4.1		6.3	050438
30.0	25.4	2.0	4.1		6.3	062030
30.0	30.4	2.0	4.1		6.3	061982
30.0	35.4	2.0	4.1		6.3	062039
35.0	30.4	2.0	4.1		6.3	061960
35.0	35.4	2.0	4.1		6.3	050443
20.0	20.4	2.0	4.5		6.5	050255
20.0	25.4	2.0	4.5		6.5	050444
20.0	30.4	2.0	4.5		6.5	062217
25.0	25.4	2.0	4.5		6.5	050446
25.0	30.4	2.0	4.5		6.5	050447
30.0	30.4	2.0	4.5		6.5	050448



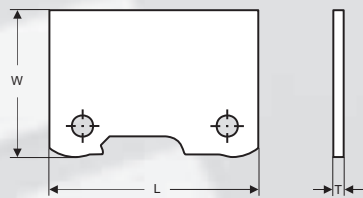
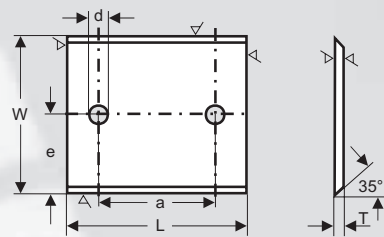
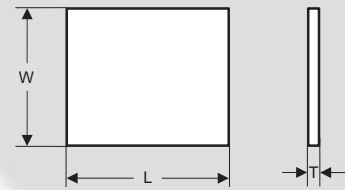
TIGRALloy - Blanks for profiling
TIGRALloy - Blanketts zum Profilieren
TIGRALloy - Plaquettes à profiler
TIGRALloy - Placchette da profilare
TIGRALloy - Piezas en bruto para perfilar



L	W	T	d	a	e	TIGRALloy
mm	mm	mm	mm	mm	mm	
30.0	25.4	2.0	4.1	14.0	6.3	050256
30.0	30.4	2.0	4.1	14.0	6.3	062258
30.0	35.4	2.0	4.1	14.0	6.3	062101
40.0	25.4	2.0	4.1	26.0	5.5	062124
40.0	30.4	2.0	4.1	20.0	5.5	046483
40.0	35.4	2.0	4.1	26.0	5.5	046485
40.0	35.4	2.0	4.1	26.0	6.0	062075
40.0	35.4	2.0	4.1	26.0	6.3	050453
40.0	40.4	2.0	4.1	26.0	6.0	062117
40.0	45.4	2.0	4.1	26.0	6.0	062083
50.0	16.0	2.0	4.1	26.0	5.5	050456
50.0	20.0	2.0	4.1	26.0	5.5	050457
50.0	25.4	2.0	4.1	26.0	5.5	062064
60.0	25.4	2.0	4.1	26.0	5.5	050459
60.0	35.4	2.0	4.1	44.0	6.0	062289
60.0	40.0	2.0	4.1	44.0	6.0	046487
19.0	30.0	2.0	3.6	8.5	4.75	062277
30.0	20.4	2.0	4.1	14.0	6.5	050257
30.0	25.4	2.0	4.1	19.0	4.75	062063
30.0	25.4	2.0	4.1	14.0	6.5	050464
30.0	30.4	2.0	4.1	14.0	6.5	050465
30.0	30.0	2.0	4.1	19.0	4.75	062278
35.0	25.4	2.0	4.1	14.0	6.5	050467
35.0	30.4	2.0	4.1	14.0	6.5	062274
40.0	20.4	2.0	4.1	26.0	6.5	062105
40.0	25.4	2.0	4.1	26.0	6.5	047452
40.0	30.4	2.0	4.1	26.0	6.5	050470
40.0	35.4	2.0	4.1	26.0	5.5	050471
50.0	20.4	2.0	4.1	26.0	6.5	050472
50.0	25.4	2.0	4.1	26.0	6.5	050743
50.0	30.4	2.0	6.0	26.0	6.5	047593
60.0	20.4	2.0	4.1	26.0	6.5	050474
60.0	25.4	2.0	4.1	26.0	6.5	050475
60.0	30.4	2.0	4.1	26.0	6.5	050476

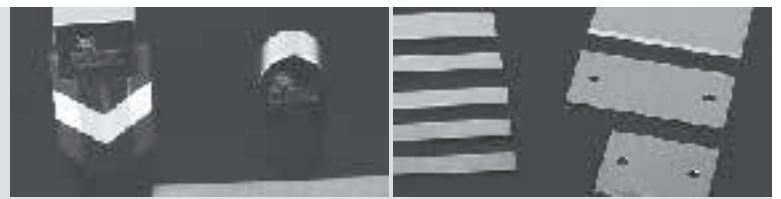


TIGRAlloy - Blanks for profiling
TIGRAlloy - Blanketts zum Profilieren
TIGRAlloy - Plaquettes à profiler
TIGRAlloy - Placchette da profilare
TIGRAlloy - Piezas en bruto para perfilar

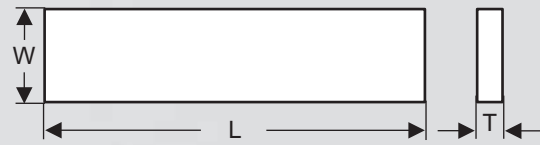


L	W	T	d	a	e	TIGRAlloy
mm	mm	mm	mm	mm	mm	
40.0	25.0	2.0	4.1	20.0		050258
40.0	30.0	2.0	3.5	20.0		050477
40.0	30.0	2.0	4.1	20.0		050478
40.0	35.0	2.0	4.1	26.0		047372
40.0	40.0	2.0	3.5	26.0		050479
45.0	35.0	2.0	4.1	26.0		046971
50.0	16.0	2.0	4.1	26.0		050480
50.0	25.0	2.0	4.1	26.0		050481
50.0	45.0	2.0	4.1	34.0		050482
60.0	35.0	2.0	4.1	26.0		046520
60.0	35.0	2.0	4.1	44.0		047030
41.0	28.0	1.5				047376
61.0	31.0	1.5				047377
61.0	45.0	2.0				047375

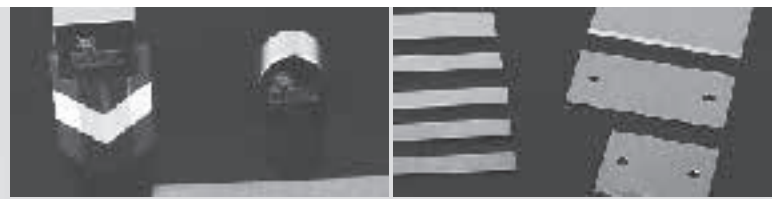
Other dimensions upon request.
 Andere Abmessungen auf Anfrage.
 D'autres dimensions sur demande.
 Altri dimensioni a richiesta.
 Otras dimensiones bajo demanda.



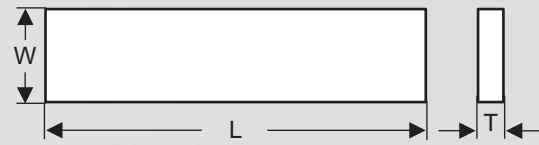
TIGRAlloy - Bars for brazed cutters
TIGRAlloy - Fräserplatten
TIGRAlloy - Plaquettes à braser
TIGRAlloy - Placchette per frese
TIGRAlloy - Placas para equipar fresas



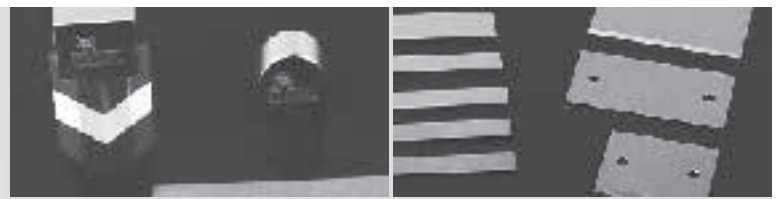
L mm	W mm	T mm	TIGRAlloy
165.0	10.0	3.0	050137
165.0	12.0	3.0	050138
165.0	15.0	3.0	050185
165.0	16.0	3.0	050186
165.0	18.0	3.0	050187
165.0	20.0	3.0	050188
165.0	25.0	3.0	050189
165.0	10.0	4.0	050190
165.0	12.0	4.0	050191
165.0	15.0	4.0	050192
165.0	16.0	4.0	050193
165.0	18.0	4.0	050194
165.0	20.0	4.0	050195
165.0	25.0	4.0	050196
165.0	30.0	4.0	050197
165.0	10.0	5.0	050199
165.0	12.0	5.0	050200
165.0	15.0	5.0	050201
165.0	16.0	5.0	050202
165.0	18.0	5.0	050203
165.0	20.0	5.0	050204
165.0	25.0	5.0	050205
165.0	30.0	5.0	050206
165.0	35.0	5.0	050207
165.0	40.0	5.0	050209



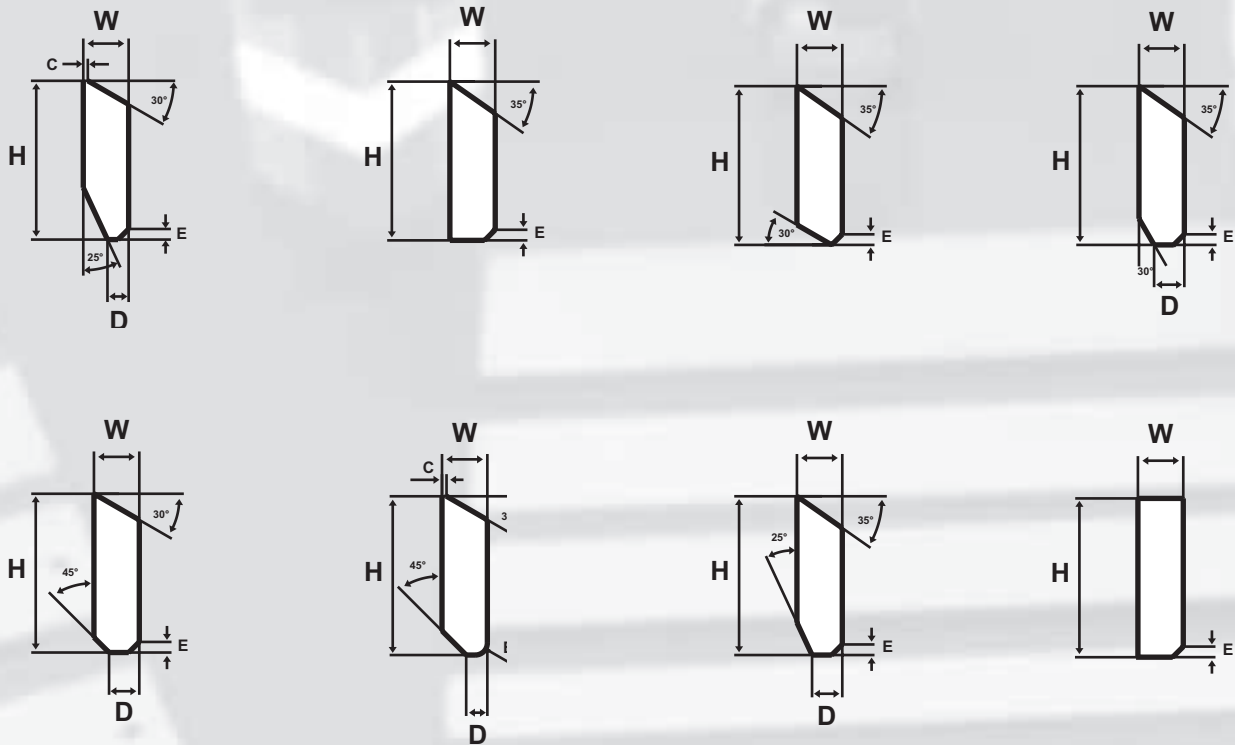
TIGRAlloy - Bars for brazed cutters
TIGRAlloy - Fräserplatten
TIGRAlloy - Plaquettes a braser
TIGRAlloy - Placchette per frese
TIGRAlloy - Placas para equipar fresas



Style	L inch	W inch	T inch	TIGRAlloy
STB 312	6	3/8	3/32	046284
STB 316	6	1/2	3/32	046290
STB 320	6	5/8	3/32	046291
STB 324	6	3/4	3/32	046292
STB 328	6	7/8	3/32	046293
STB 332	6	1	3/32	046294
STB 336	6	1 1/8	3/32	046352
STB 340	6	1 1/4	3/32	046353
STB 348	6	1 1/2	3/32	046354
STB 412	6	3/8	1/8	046295
STB 416	6	1/2	1/8	046296
STB 420	6	5/8	1/8	046297
STB 424	6	3/4	1/8	046298
STB 428	6	7/8	1/8	046299
STB 432	6	1	1/8	046300
STB 436	6	1 1/8	1/8	046454
STB 440	6	1 1/4	1/8	046301
STB 448	6	1 1/2	1/8	046302
STB 510	6	5/16	5/32	046457
STB 512	6	3/8	5/32	046459
STB 516	6	1/2	5/32	046460
STB 520	6	5/8	5/32	046461
STB 524	6	3/4	5/32	046462
STB 528	6	7/8	5/32	046463
STB 532	6	1	5/32	046464
STB 536	6	1 1/8	5/32	046465
STB 540	6	1 1/4	5/32	046466
STB 612	6	3/8	3/16	046469
STB 616	6	1/2	3/16	046470
STB 620	6	5/8	3/16	046471
STB 624	6	3/4	3/16	046472
STB 628	6	7/8	3/16	046473
STB 632	6	1	3/16	050603
STB 636	6	1 1/8	3/16	046474
STB 640	6	1 1/4	3/16	046475
STB 648	6	1 1/2	3/16	046476



TIGRALloy - Saw tips
TIGRALloy - Sägezähne
TIGRALloy - Dents de scie
TIGRALloy - Dentelli per lame
TIGRALloy - Dientes de sierra



We supply all kinds of TIGRALloy saw tips. Just give us dimensions and quantities.

Wir beliefern Sie mit allen Arten von TIGRALloy-Sägezähnen. Nennen Sie uns einfach Maße und Bestellmenge.

Nous livrons tous les types de dents de scie en TIGRALloy. Donnez-nous les dimensions et les quantités.

Forniamo tutti i tipi di dentelli per lame in TIGRALloy. Basta farci sapere misure e quantità.

Tenemos disponibles todos los tipos de dientes de sierra TIGRALloy. Pueden especificar dimensiones y cantidades.



Carbide wear parts
Verschleißteile aus Hartmetall
Pièces d'usure au carbure
Usura
Piezas de desgaste de metal duro

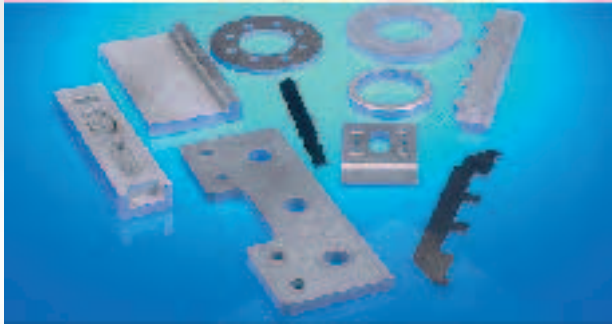
TIGRA produces almost any kind of flat parts for various wear applications, as per our customer's specification:

TIGRA produziert nach Kundenvorgabe fast alle Arten von Flachteilen für verschiedene Verschleiß-Anwendungen:

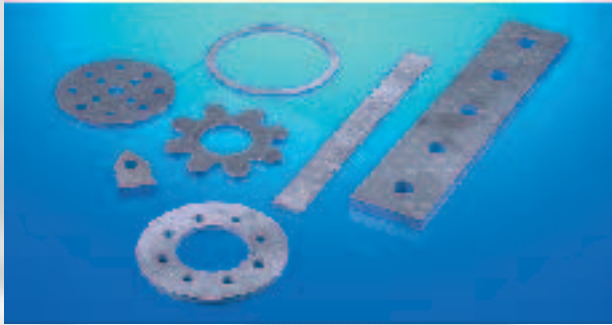
TIGRA produit pratiquement toutes les sortes de pièces plates destinées à différentes applications d'usure d'après les indications de ses clients:

TIGRA produce quasi ogni tipo di pezzo piano per le applicazioni di usura:

TIGRA fabrica sobre plano prácticamente cualquier tipo de pieza plana distintas aplicaciones:



Construction parts for machine building and automation
Blanks for cutting and stamping tools
Flat and formed parts for metalworking
Preformed knives for textile, rubber and plastic working
EDM-blocks



Konstruktionsteile für Maschinenbau und Automatisierung
Platten für Schnitt- und Stanzwerkzeuge
Flach- und Formteile für die Metallbearbeitung
Messer-Rohlinge für Textil-, Gummi- und Kunststoffbearbeitung
Erodierblöcke



Éléments de construction pour machines et automatisation
Plaquettes pour outils de coupe et de matricage
Pièces plates et façonnées pour usinage du métal
Ébauches de fers pour traitement des textiles, caoutchoucs et matières plastiques
Blocs à éroder



Parti strutturale per macchine e automazioni
Placchette per utensili da taglio e trince
Parti piatte e speciali per la lavorazione del metallo
Coltelli grezzi per lavorazioni tessili, gomma e plastica
Blocchetti per erosione

Piezas especiales para construcción de maquinaria y automatizado
Placas para herramientas de corte y estampado
Piezas planas y de forma para mecanizado del metal
Piezas en bruto para cuchillas utilizadas con materiales de tipo textil, gomas y plasticos
Bloques para electroerosión

Terms and Conditions
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Conditions générales de vente
Condizioni generali di contratto
Condiciones comerciales generales

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Security information for our customers
Sicherheitsinformationen für unsere Kunden
Information de sécurité pour nos clients
Informazioni di sicurezza per i nostri clienti
Información de seguridad para nuestros clientes

www.tigra.de - always actual

Please choose „Terms and conditions“ in the navigation menu and you will get the security information for the production and application of tungsten carbide tools for woodworking.

www.tigra.de - stets aktuell

Unter „AGB“ in der Navigation erhalten Sie dann die Sicherheitsinformationen für die Herstellung und Anwendung von Hartmetallwerkzeugen für die Holzbearbeitung.

www.tigra.de - toujours actuel

Sous „AGB“ vous trouvez des informations de sécurité pour la production et application des outils pour le travail du bois.

www.tigra.de - sempre aggiornato

Scegliete termini e condizioni di vendita („AGB“). Ivi trovate anche informazioni di sicurezza sulla produzione ed applicazione di utensili per legno.

www.tigra.de - siempre actualizado

Por favor seleccione términos y condiciones („AGB“) en el menú de navegación. La encontrará la última información relativa a la seguridad con el trabajo del metal duro, resistencia a la flexión y afiladura.

Warning
Warnung
Mise en garde
Avvertenza
Advertencia

This catalogue describes cemented carbide products. Grinding of these products will produce dust of potentially hazardous ingredients. Dust from grinding the products described in this catalogue can cause nose, throat, skin and eye irritation and temporary or permanent respiratory disease in a small percentage of exposed individuals. Permanent respiratory disease can lead to disability or death. Coolant mist from wet grinding may contain dust. Avoid prolonged skin contact with dust or mist. Use adequate ventilation when grinding. Maintain dust levels below OSHA and ACGIH levels. Use protective devices. Wash hand thoroughly after handling, before eating or smoking. Dispose of materials according to local, state and/or federal regulations.

Der Schleifstaub der in diesem Katalog beschriebenen Hartmetallprodukte enthält möglicherweise gesundheitsschädliche Bestandteile. Er kann Nasen-, Atmungs-, Haut- und Augenreizungen auslösen. Dauerhaftes Einatmen kann zu ernsthaften gesundheitlichen Schäden führen. Beim Schleifen mit Kühlung entsteht ein Schlamm, der diesen Staub ebenfalls enthält. Vermeiden Sie das Einatmen von Schleifstaub und Schleifschlamm sowie längeren Hautkontakt. Sorgen Sie für ausreichende Absaugung. Benutzen Sie Schutzvorrichtungen. Waschen Sie sich nach der Berührung sorgfältig die Hände, insbesondere vor dem Essen. Die Entsorgung von Rückständen muss nach den entsprechenden gesetzlichen Vorschriften erfolgen.

La poussière de meulage des produits en carbure décrits dans ce catalogue risque de contenir des éléments dangereux pour la santé. Elle peut provoquer des irritations du nez, des voies respiratoires, de la peau et des yeux. Une inhalation prolongée peut provoquer de graves problèmes de santé. Pendant le meulage avec refroidissement, il se forme du cambouis qui contient également cette poussière. Evitez d'inhaler la poussière et le cambouis de meulage, ainsi que tout contact prolongé avec la peau. Veillez à ce que leur aspiration soit suffisante. Utilisez des dispositifs de protection. Après tout contact, lavez-vous soigneusement les mains, surtout avant les repas. La mise au rebut des résidus doit se faire conformément aux prescriptions légales en vigueur.

Il pulviscolo di rettifica del prodotto in metallo duro descritto nel presente catalogo può contenere componenti dannosi per la salute. Può causare irritazione a naso, vie respiratorie, pelle e occhi. L'esposizione prolungata a queste sostanze e la conseguente inalazione possono causare seri danni alla salute. Anche in caso di profilatura a freddo si produce un residuo fangoso che contiene questo pulviscolo. Evitare l'inalazione e il contatto prolungato con la pelle del pulviscolo di rettifica e dei residui. Eseguire un'accurata pulizia e adottare idonee misure di protezione. Lavare accuratamente le mani dopo ogni contatto, soprattutto prima dei pasti. Smaltire i residui in conformità alle normative vigenti in materia.

En este catálogo se describen productos de metal duro que, durante el lijado, producen un polvo que contiene sustancias nocivas para la salud. Estas sustancias pueden provocar irritación en los ojos, la piel o la nariz y causar problemas respiratorios. Una exposición continuada puede conducir a lesiones físicas graves. Durante el lijado con refrigeración, se produce una pasta que también contiene este polvo. Evite respirar el polvo y la pasta de lijado, así como el contacto prolongado con la piel. Asegúrese de utilizar un sistema de aspiración adecuado. Utilice dispositivos de seguridad. Láve las manos minuciosamente después del contacto, en particular antes de comer. Observe las prescripciones legales correspondientes para la gestión de residuos.

