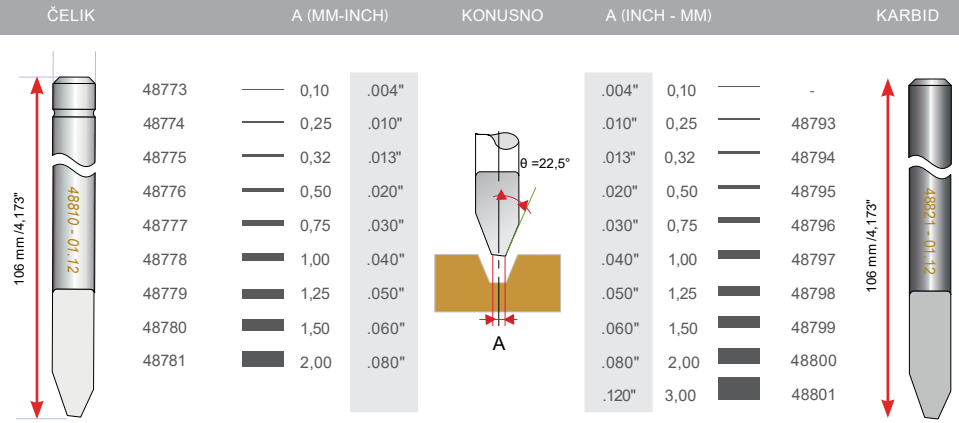


GRAVIRANJE

Kompatibilno sa : M20 starim verzijama, IM4, IM3

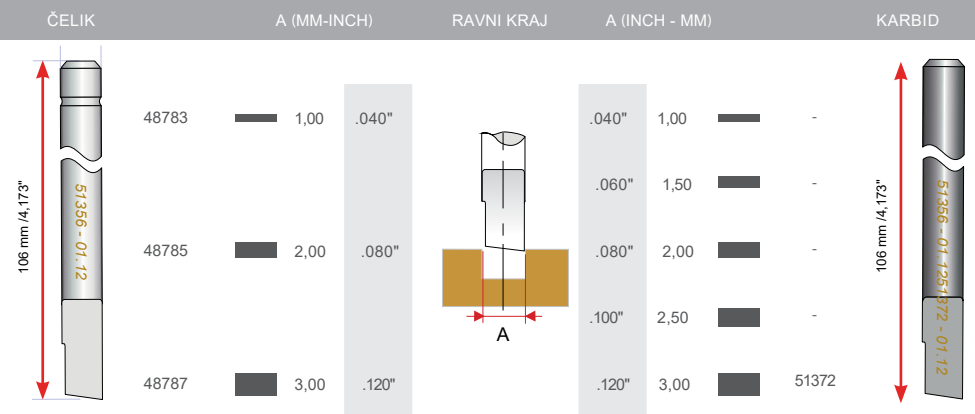
KONUSNO

	ČELIK	KARBID
<b>KOMPATIBILNI MATERIJALI</b>		
Gravoply™, Metallex™ & Gravoglas™, Akriлик	☉	■
Koža i njeni derivati		
Fenolici		■
Zlato/srebro	■	■
Alumijum/mesing	■	☉
Čelik/Nerđajući čelik		
☉ Potpuno odgovara	■ Odgovara	



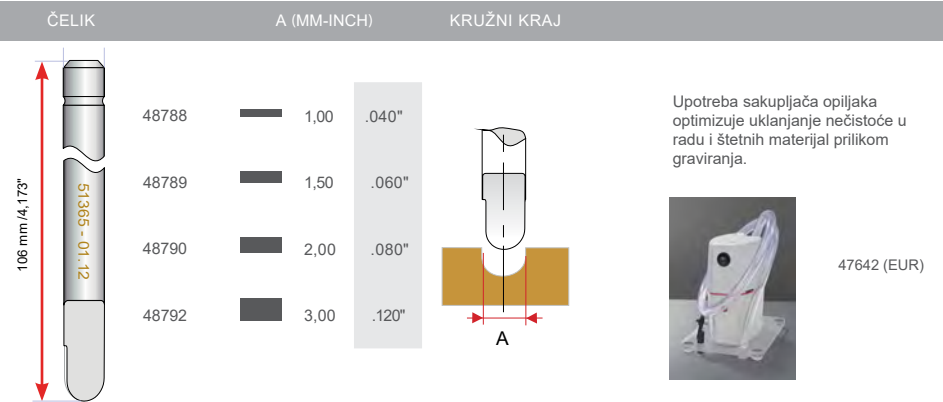
RAVNI KRAJ

	ČELIK	KARBID
<b>KOMPATIBILNI MATERIJALI</b>		
Gravoply™, Metallex™ & Gravoglas™, Akriлик	☉	■
Koža i njeni derivati		
Fenolici		■
Zlato/srebro	■	■
Alumijum/mesing	■	☉
Čelik/Nerđajući čelik		
☉ Potpuno odgovara	■ Odgovara	



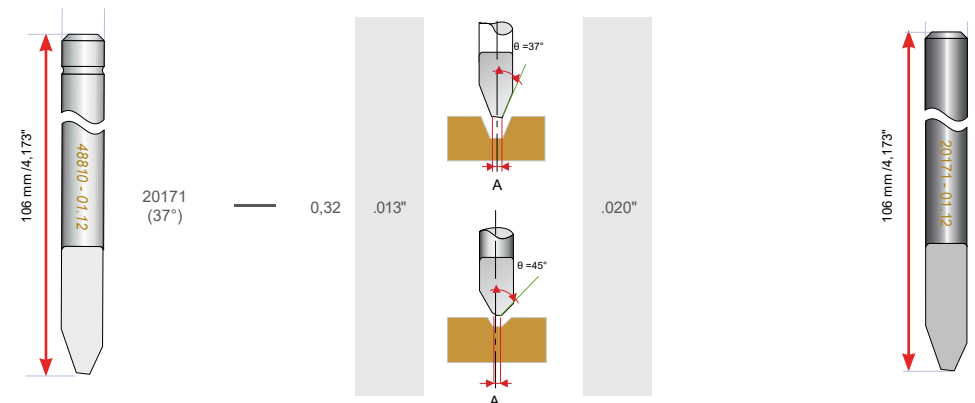
KRUŽNI KRAJ

	ČELIK	KARBID
<b>KOMPATIBILNI MATERIJALI</b>		
Gravoply™, Metallex™ & Gravoglas™, Akriлик	☉	■
Koža i njeni derivati		
Fenolici		■
Zlato/srebro	■	■
Alumijum/mesing	■	☉
Čelik/Nerđajući čelik		
☉ Potpuno odgovara	■ Odgovara	



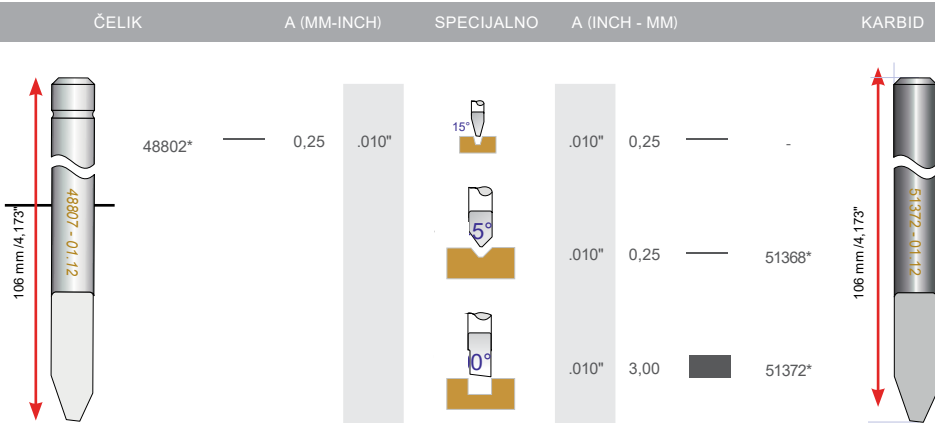
SPECIJALNO KONUSNO

	θ = 37°	θ = 45°
<b>KOMPATIBILNI MATERIJALI</b>		
Gravoply™, Metallex™ & Gravoglas™, Akriлик	■	■
Meke plastike	☉	■
Koža i njeni derivati		☉
Fenolici		
Zlato/srebro		
☉ Potpuno odgovara	■ Odgovara	



Kompatibilno sa: M20 stare verzije, IM4, IM3

## OBARANJE IVICE



\*Preporučenba glodala za B4 obarač ivice.

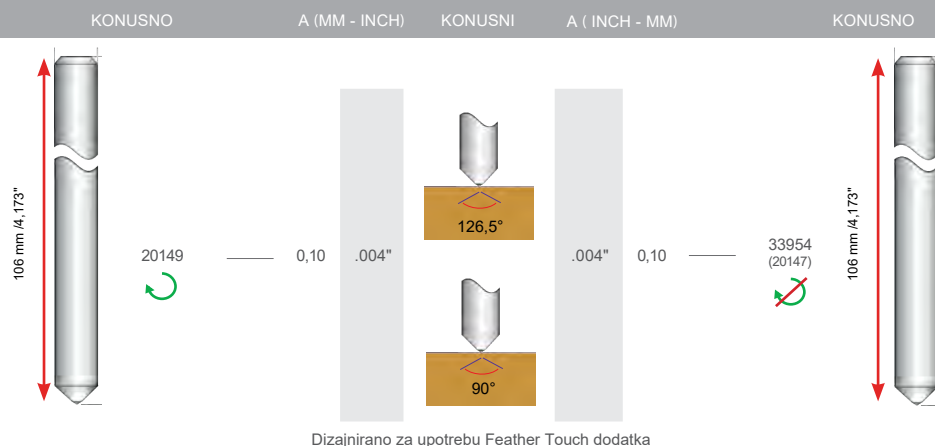
### KONUSNO ZA OBARANJE IVICE

KOMPATIBILNI MATERIJALI	ČELIK	KARBID
Gravoply™, Metallex™ & Gravoglas™, Akriлик	●	■
Koža i njeni derivati		
Fenolici		■
Zlato/srebro	■	■
Aluminijum/mesing	■	●
Čelik/nerđajući čelik		
● Potpuno odgovara	■ Odgovara	

## GREBANJE

### DIJAMANT ZA GREBANJE

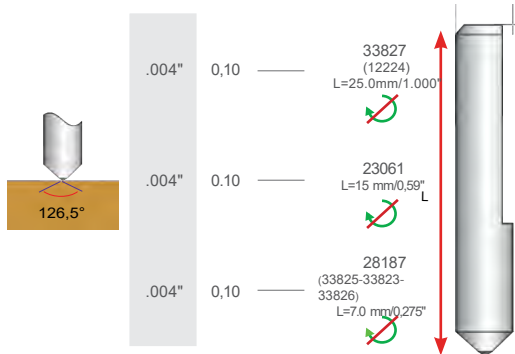
KOMPATIBILNI MATERIJALI	ROTIRAJUĆI	NEROTIRAJUĆI
Gravoply™, Metallex™ & Gravoglas™, Akriлик		
Koža i njeni derivati		
Staklo i ogledalo	●	■
Zlato/srebro	■	●
Aluminijum/mesing	■	■
Čelik/nerđajući čelik	■	
● Potpuno odgovara	■ Odgovara	



Grebajući insert:  
IM3 / IF3 DIAMOND  
VX DIAMOND SPINDLE  
Nerotirajući

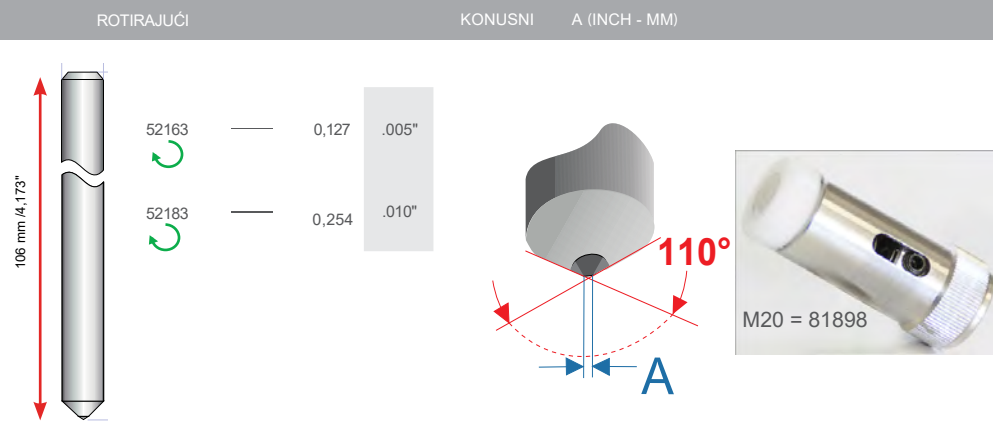
Grebajući insert  
Dijamantska spindla : M20  
Dijamant (stara verzija)  
M20 stara verzija

Grebajući insert  
Dijamantski nos (22884)  
Mod B - Im4 R & RM - M20 i  
M10 Jewel - RingCube  
-TagCube  
Non erotirajući



### DIJAMANT ZA GREBANJE

KOMPATIBILNI MATERIJALI	DIJAMANT
Gravoply™, Metallex™ & Gravoglas™, Akriлик	
Koža i njeni derivati	
Staklo i ogledalo	■
Zlato/srebro	■
Aluminijum/mesing	●
Čelik/nerđajući čelik	■
● Potpuno odgovara	■ Odgovara



### DIJAMANT ZA GREBANJE

KOMPATIBILNI MATERIJALI	ROTIRAJUĆI
Gravoply™, Metallex™ & Gravoglas™, Akriлик	
Koža i njeni derivati	
Staklo i ogledalo	●
Zlato/srebro	
Aluminijum/mesing	■
Čelik/nerđajući čelik	
● Potpuno odgovara	■ Odgovara

Rotiraju i Nerotiraju i



GRAVIRANJE

Kompatibilno sa: TXL, M20 nova verzija, M40, IS200, IS400, IS900, ISX000

STANDARDNO KONUSNO

	ČELIK	KARBID
<b>KOMPATIBILNI MATERIJALI</b>		
Gravoply™, Metallex™ & Gravoglas™, Akrilik	☉	☉
Koža i njeni derivati		
Fenolici		☉
Zlato/srebro	■	■
Aluminijum/mesing	■	■
Čelik/Nerđajući čelik		
☉ Potpuno odgovara	■ Odgovara	

ČELIK	A (MM - INCH)	KONUSNO	A (INCH - MM)	KARBID
48808	0,10 .004"		.004" 0,10	-
48809	0,25 .010"		.010" 0,25	48820
48810	0,32 .013"		.013" 0,32	48821
48811	0,50 .020"		.020" 0,50	48822
48812	0,75 .030"		.030" 0,75	48823
48813	1,00 .040"		.040" 1,00	48824
48814	1,25 .050"		.050" 1,25	48825
48815	1,50 .060"		.060" 1,50	48826
48816	2,00 .080"		.080" 2,00	48827
48818	3,00 .120"		.120" 3,00	48828
			.160" 4,00	48829

CILINDRIČNO

	RAVAN KRAJ	KRUŽNI KRAJ
<b>KOMPATIBILNI MATERIJALI</b>		
Gravoply™, Metallex™ & Gravoglas™, Akrilik	☉	☉
Koža i njeni derivati		
Fenolici		
Zlato/srebro	■	■
Aluminijum/mesing	■	■
Čelik/Nerđajući čelik		
☉ Potpuno odgovara	■ Odgovara	

ČELIK	A (MM - INCH)	RAVAN / KRUŽNI	A (MM - INCH)	ČELIK
51355	1,00 .040"		.040" 1,00	51362
51356	1,50 .060"		.060" 1,50	51363
51358	2,00 .080"		.080" 2,00	51364
51359	2,50 .100"		.100" 2,50	51365
51360	3,00 .120"		.120" 3,00	51366
48834	4,00 .160"		.140" 3,50	51367

CILINDRIČNO

	1/4 OBRADENO	BURGIJA
<b>KOMPATIBILNI MATERIJALI</b>		
Gravoply™, Metallex™ & Gravoglas™, Akrilik		☉
Koža i njeni derivati		
Fenolici		
Zlato/srebro	■	■
Aluminijum/mesing	☉	■
Čelik/Nerđajući čelik		
☉ Absolutely suitable	■ Suitable	

	ROUND END CYLINDRICAL A (INCH - MM)	KARBID	
80227	2,00 .080"		
	.013" 0,32		51373
	.020" 0,50		51374
	.030" 0,75		51375
	.050" 1,25		51376



Upotreba sakupljača opiljaka je preporučena za svaku vrstu glodala.



Kompatibilno sa: TXL, M20 nova verzija, M40, IS200, IS400, IS900, ISX000

ROTIRAJUĆI	A (MM - INCH)	DIJAMANT	A (INCH - MM)	NEROTIRAJUĆI
 12909 (Faceted)	0,10	 120,0°	0,50	 34094 (21050)
 34095 (KONISCH)	0,50	 126,5°	0,50	 84975

### KONUSNI I FACETOVATI DIJAMANT

KOMPATIBILNI MATERIJALI	ROTATING DIAMOND		NON ROTATING	
	12909	34095	34094	84975
Staklo i ogledalo	●	■		
Aluminijum/mesing	■	■	●	●
Zlato/srebro	■		■	■
Čelik/Nerđajući čelik		●		

● Potpuno odgovara    ■ Odgovara

FACETOVANI	A (MM - INCH)	DIJAMANT
 77659	0,25	 110°
 34122	0,25	
 34123	0,38	
 34124	0,76	

### FACETOVANI DIJAMANT

KOMPATIBILNI MATERIJAL	FACETOVANI DIJAMANT
Plastike	
Koža i njeni derivati	
Staklo i ogledalo	●
Aluminijum/mesing	
Zlato/srebro	
Čelik/Nerđajući čelik	

● Potpuno odgovara    ■ Odgovara

Dizajnirano za upotrebu Feather Touch dodatka

DIJAMANTSKA KUGLA	SPECIJALNI DIJAMANT
 20932	 1.60
 20933	

### SPECIJALNI

KOMPATIBILNI MATERIJAL	DIJAMANTSKA KUGLA
Plastike	
Koža i njeni derivati	
Fenolici	
Čelik/Nerđajući čelik	
Staklo i ogledalo	■
Granit	●

● Potpuno odgovara    ■ Odgovara

Designed for Feather Touch Use

### CRTANJE/PISANJE

STILUS
 Sastavljeni bit sa stilusom 21679
 CROSS dopuna za stilus 12374

Idealno za izvođenje testa pre graviranja.

### KOMPATIBILNI MATERIJAL

KOMPATIBILNI MATERIJAL	STYLUS
Gravoply™, Metallex™ & Gravoglas™, Akrilik	
Koža i njeni derivati	
Fenolici	
Papir	●

● Potpuno odgovara    ■ Odgovara

Rotiraju i Nerotiraju i



BEVELLING

Compatible with : TXL, IS200, M40, IS400, IS900, ISX000

SPECIAL

	STEEL	CARBIDE
<b>COMPATIBLE MATERIALS</b>		
Gravoply™, Metallex™ & Gravoglas™, Acrylic	●	■
Leathers and derived products		
Phenolic		●
Gold/Silver	■	●
Aluminium/Brass	■	
Steel/Stainless steel		●
● Absolutely suitable	■ Suitable	

STEEL	A (MM - INCH)	SPECIAL	A (INCH - MM)	CARBIDE
48830*	0,25 .010"	15°	.010" 0,25	
48832	0,25 .010"	22,5°	.010" 0,25	
		45°	.010" 0,25	21038
		90°	.120" 3,00	21041

DRILLING AND CUTTING

HELICAL

	CARBIDE
<b>COMPATIBLE MATERIALS</b>	
Gravoply™, Metallex™ & Gravoglas™, Acrylic	●
Phenolic	■
Gold/Silver	■
Aluminium/Brass	●
Steel/Stainless steel	■
● Absolutely suitable	■ Suitable

To choose your tool, consult the Braille tool selection assistance guide below.

The chip collector use is essential for all drilling operations.



HELICAL	A (INCH - MM)	CARBIDE
	.061" 1,550	48766
	.062" 1,565	48767
	.063" 1,580	48768



BRILLE TOOL SELECTION GUIDE

- ref: 48686 - Tool width 1.500 mm
- ref: 48766 - Tool width 1.550 mm
- ref: 48767 - Tool width 1.565 mm
- ref: 48768 - Tool width 1.580 mm

	Adhesive-free materials		Materials with adhesive
	Steel beads	Acrylic beads	All beads
Metals	48767	48767	48768
Acrylic	48767	48767	48768
Gravotac™	48766	48766	48768
Phenolic	48767	48767	48768
ABS +2 Ply™	48686	48686	48767

SEMI-FINISHED CARBIDE TOOLS

READY TO GRIND



MORE INFORMATION ABOUT CG30 GRINDER. AVAILABLE - Page 105

	MM	
3.17-1/8"	L	L1
	30046	105.0 / 4.134"
4.36-11/64"	L	L1
	73011	50.0 / 1.968"
4.36-11/64"	L	L1
	28082	160.0 / 6.299"
6.35-1/4"	L	L1
	73012	50.0 / 1.968"
6.35-1/4"	L	L1
	73013	50.0

Solid carbide



ENGRAVING

Compatible with : TXL, M20 new version, M40, IS200, IS400, IS900, ISX000

STANDARD CONICAL

COMPATIBLE MATERIALS	$\theta = 22.5^\circ$	$\theta = 30^\circ$
Gravoply™, Metallex™ & Gravoglas™, Acrylic	☉	☉
Leathers and derived products	■	■
Phenolic	■	■
Gold/Silver	■	☉
Aluminium/Brass	☉	☉
Steel/Stainless steel	■	■

☉ Absolutely suitable    ■ Suitable

$\theta = 22.5^\circ$	CARBIDE	A (MM-INCH)	CONICAL	A (INCH - MM)	CARBIDE	$\theta = 30^\circ$
160 mm/6.299"	48608	0,25		.010"	0,25	50135
15.0 mm/0.590"	48609	0,32		.013"	0,32	50136
	48610	0,50		.020"	0,50	50137
	48611	0,75		.030"	0,75	50138
	48612	1,00		.040"		
	48613	1,25		.050"		
	48614	1,50		.060"		
	48615	1,75		.069"		
	48616	2,00		.080"		
	48617	2,50		.100"		
48618	3,00	.120"				

CYLINDRICAL

COMPATIBLE MATERIALS	FLAT END	ROUND END
Gravoply™, Metallex™ & Gravoglas™, Acrylic	☉	☉
Leathers and derived products	■	■
Phenolic	■	■
Gold/Silver	■	■
Aluminium/Brass	■	■
Steel/Stainless steel	■	■

☉ Absolutely suitable    ■ Suitable

FLAT END	CARBIDE	A (MM-INCH)	CYLINDRICAL	A (INCH - MM)	CARBIDE	ROUND END	
160 mm/6.299"	48619	1,00		.040"	1,00	48624	
15.0 mm/0.590"	48620	1,50		.060"	1,50	48625	
	48621	2,00		.100"	2,00	48626	
	48622	2,50		.100"	2,50	48627	
	48623	3,00		.120"	3,00	48628	

CONICAL

COMPATIBLE MATERIALS	$\theta = 35^\circ$	DOUBLE CONE
Gravoply™, Metallex™ & Gravoglas™, Acrylic	☉	☉
Leathers and derived products	■	■
Phenolic	■	■
Gold/Silver	■	■
Aluminium/Brass	■	■
Steel/Stainless steel	☉	☉

☉ Absolutely suitable    ■ Suitable

$\theta = 35^\circ$	CARBIDE	A (MM-INCH)	CONICAL	A (INCH - MM)	CARBIDE	DBLE CONE	
160 mm/6.299"	48629	0,25		.010"	0,25	48645	
15.0 mm/0.590"	48630	0,32		.013"	0,32	48646	
	48631	0,50		.020"	0,50	48647	
	48632	0,75		.030"	0,75	48648	
	48633	1,00		.040"	1,00	48649	
	48634	1,25		.050"	1,25	48650	
	48635	1,50		.060"			

SPECIAL CONICAL

COMPATIBLE MATERIALS	1/4 ROUND
Gold/Silver	■
Aluminium/Brass	■
Steel/Stainless steel	☉

☉ Absolutely suitable    ■ Suitable

Advice for use	1/4 ROUND	A (INCH - MM)	CARBIDE	1/4 ROUND
<p><u>Anodised aluminium:</u> depth 1 division at adjustment tip</p> <p><u>Steel and stainless steel:</u> Rotation speed = 11,000 rpm (adjustment only possible on IS)</p> <p>A higher speed would cause premature wearing in the truncation. V xy= 5mm/s/ Vz = 3mms</p> <p>The use of a cutting lubrication oil is essential: <b>TARFIL™ blue ref: 19526</b></p>		.010"	0,25	48636
		.013"	0,32	48637
		.020"	0,50	48638
		.030"	0,75	48639
		.040"	1,00	48640
		.050"	1,25	48641
		.060"	1,50	48642
		.069"	1,75	48643
		.080"	2,00	48644



Compatible with : TXL, M20 new version, M40, IS200, IS400, IS900, ISX000

## BEVELLING

$\theta = 15^\circ$  CARBIDE A (MM - INCH) SPECIAL A (INCH - MM) CARBIDE  $\theta = 45^\circ$

48713 — 0,32 .013"  $\theta = 15^\circ$   $\theta = 45^\circ$  .013" 0,32 — 48925

### SPECIAL

#### COMPATIBLE MATERIALS

- Gravoply™, Metallex™ & Gravoglas™, Acrylic
- Leathers and derived products
- Phenolic
- Gold/Silver
- Aluminium/Brass
- Steel/Stainless steel

$\theta = 15^\circ$   $\theta = 45^\circ$

⊙ Absolutely suitable ■ Suitable

## SCRIBING

$\theta = 120.0^\circ$  CARBIDE A (MM - INCH) DIAMOND A (INCH - MM) CARBIDE  $\theta = 126.5^\circ$

23060 — 0,10 .004"  $120.0^\circ$   $126.5^\circ$  .004" 0,10 — 23061

Designed for feather Touch Use

### DIAMOND

#### COMPATIBLE MATERIALS

- Gravoply™, Metallex™ & Gravoglas™, Acrylic
- Gold/Silver
- Aluminium/Brass
- Steel/Stainless steel

$\theta = 120.0^\circ$   $\theta = 126.5^\circ$

⊙ Absolutely suitable ■ Suitable

## DRILLING AND CUTTING

DRILLING CARBIDE A (MM-INCH) CYLINDRICAL A (INCH - MM) CARBIDE MULTI-LIP

48661 • 0,50 .020" 48651 160 mm/6,299" 15,0 mm/0,590"

48682 • 0,80 .030" 48651 1,00 — 48651

48683 • 1,00 .040" 48651 2,00 — 48652

48684 • 1,20 .047" 48651 2,00 — 48652

48685 • 1,40 .055" 48651 2,00 — 48652

48686 • 1,50 .060" 48651 2,00 — 48652

48687 • 2,00 .080" 48651 2,00 — 48652

48688 • 2,50 .100" 48651 2,00 — 48652

### CYLINDRICAL

#### COMPATIBLE MATERIALS

- Gravoply™, Metallex™ & Gravoglas™, Acrylic
- Leathers and derived products
- Phenolic / Epoxy
- Gold/Silver
- Aluminium/Brass
- Steel/Stainless steel

DRILLING MULTI-LIPS

⊙ Absolutely suitable ■ Suitable

## CUTTING

DOUBLE LIP CARBIDE A (MM-INCH) CYLINDRICAL A (INCH - MM) CARBIDE SINGLE LIP

48657 — 0,80 .030" 48653 160 mm/6,299" 15,0 mm/0,590"

48658 — 1,00 .040" 48653 1,0 — 48654

48659 — 2,00 .080" 48653 2,0 — 48655

48660 — 3,00 .100" 48653 3,0 — 48656

### CYLINDRICAL

#### COMPATIBLE MATERIALS

- Gravoply™, Metallex™ & Gravoglas™, Acrylic
- Gold/Silver
- Aluminium/Brass

DOUBLE LIPS SINGLE LIP

⊙ Absolutely suitable ■ Suitable

Rotating Non rotating

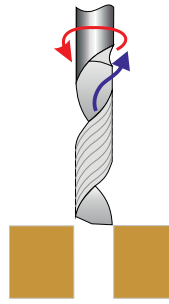




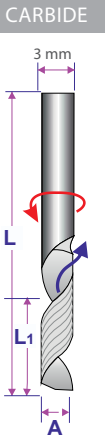
MACHINING

COMPATIBLE MATERIALS	SINGLE LIP
Gravoply™, Metallex™ & Gravoglas™, Acrylic	☉
Leathers and derived products	
Phenolic	
Gold/Silver	
Aluminium/Brass	■
Steel/Stainless steel	

☉ Absolutely suitable    ■ Suitable

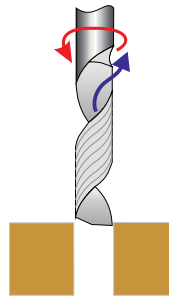


L	L <sub>1</sub>	A		
39,0 mm 1.535"	4,0 mm .160"	1,0 mm .040"	█	48736
39,0 mm 1.535"	8,0 mm .315"	2,0 mm .080"	█	48737
39,0 mm 1.535"	10,0 mm .40"	3,0 mm .120"	█	48738

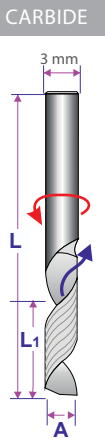


COMPATIBLE MATERIALS	SINGLE LIP
Gravoply™, Metallex™ & Gravoglas™, Acrylic	■
Leathers and derived products	
Phenolic	
Gold/Silver	
Aluminium/Brass	☉
Steel/Stainless steel	

☉ Absolutely suitable    ■ Suitable

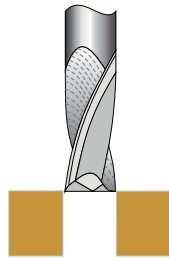


L	L <sub>1</sub>	A		
38,0 mm 1.496"	3,0 mm .120"	1,0 mm .040"	█	48739
38,0 mm 1.496"	5,0 mm .197"	2,0 mm .080"	█	48740
50,0 mm 1.968"	8,0 mm .315"	3,0 mm .120"	█	48741

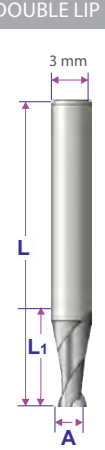


COMPATIBLE MATERIALS	DOUBLE LIPS	80341
Gravoply™, Metallex™ & Gravoglas™, Acrylic	■	
Leathers and derived products		
Phenolic		
Gold/Silver		
Aluminium/Brass	☉	☉
Steel/Stainless steel		

☉ Absolutely suitable    ■ Suitable



L	L <sub>1</sub>	A		
38,0 mm 1.496"	2,0 mm .080"	1,0 mm .040"	█	48752
38,0 mm 1.496"	3,0 mm .120"	1,5 mm .060"	█	48753
38,0 mm 1.496"	1,95 mm .077"	1,95 mm .077"	█	80341*
38,0 mm 1.496"	4,0 mm .160"	2,0 mm .080"	█	48755
38,0 mm 1.496"	6,0 mm .236"	3,0 mm .120"	█	48769



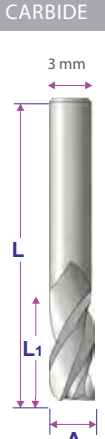
\* TiAIN coated - avoid lubricant for hard bronze & copper

COMPATIBLE MATERIALS	TRIPLE LIPS
Gravoply™, Metallex™ & Gravoglas™, Acrylic	
Gold/Silver	
Aluminium/Brass	☉
Steel/Stainless steel	

☉ Absolutely suitable    ■ Suitable



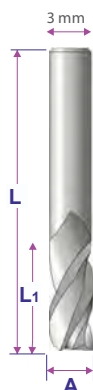
L	L <sub>1</sub>	A		
38,0 mm 1.496"	4,0 mm .160"	2,0 mm .080"	█	70611



## MACHINING

CARBIDE

A L<sub>1</sub> L



23080 — 2,00 mm .080" 6,00 mm .236" 32,0 mm 1.260"



COMPATIBLE MATERIALS

TRIPLE LIPS

Gravply™, Metallex™ & Gravoglas™, Acrylic

Leathers and derived products

Phenolic

Gold/Silver

Aluminium/Brass

Steel/Stainless steel

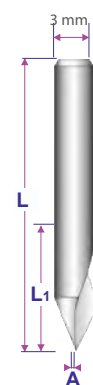
⊙ Absolutely suitable

▪ Suitable

## ENGRAVING

CARBIDE

A L<sub>1</sub> L



23077 — 0,15 mm .005" - 32 mm 1.260"



COMPATIBLE MATERIALS

CONICAL HELICAL

Gravply™, Metallex™ & Gravoglas™, Acrylic

Leathers and derived products

Phenolic

Gold/Silver

Aluminium/Brass

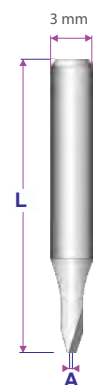
Steel/Stainless steel

⊙ Absolutely suitable

▪ Suitable

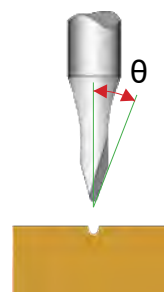
CARBIDE

A θ L



70613 — 0,05 mm .002" 50° 38 mm 1.496"

70612 — 0,15 mm .005" 50° 38 mm 1.496"



COMPATIBLE MATERIALS

3/4 CONICAL

Gravply™, Metallex™ & Gravoglas™, Acrylic

Leathers and derived products

Phenolic

Gold/Silver

Aluminium/Brass

Steel/Stainless steel

⊙ Absolutely suitable

▪ Suitable

### Advice for use

#### Cutting and engraving plastics

Parameters	V xy (mm/s)	V Z (mm/s)	Conditions
Engraving	20 à 35	10 à 20	Chip collector (A)
Cutting	5 à 15	2 à 8	Chip collector (A)

#### Cutting and engraving brass

Parameters	V xy (mm/s)	V Z (mm/s)	Conditions
Engraving	10 à 15	5 à 10	Chip collector (A)
Cutting	4 à 10	2 à 8	Chip collector (A)

#### Cutting and engraving aluminium

Parameters	V xy (mm/s)	V Z (mm/s)	Conditions
Engraving	7 à 12	5 à 8	Lubrication : Surfex® Ref:30368 (B)
Cutting	2 à 5	1 à 5	Lubrication : Surfex® Ref:30368 (B)

#### Cutting and engraving steel and stainless steel

Parameters	V xy (mm/s)	V Z (mm/s)	Conditions
Engraving	5 à 10	1 à 5	Lubrication : Tarfil™ Ref:19526 (C)
Cutting	1 à 3	1 à 2	Lubrication : Tarfil™ Ref:19526 (C)

Rotiraju i Nerotiraju i



A



B



C



MACHINING

		L	L <sub>1</sub>	A			SINGLE LIP				
COMPATIBLE MATERIALS	SINGLE LIP										
Gravoply™, Metallex™ & Gravoglas™, Acrylic	●							38,0 mm 1.496"	8,0 mm .315"	2,0 mm .080"	48742
Leathers and derived products	■							38,0 mm 1.496"	10,0 mm .40"	3,0 mm .120"	48743
Phenolic	■							50,0 mm 1.968"	20,0 mm .80"	4,0 mm .160"	48744
Gold/Silver	■										
Aluminium/Brass	■										
Steel/Stainless steel	■										
● Absolutely suitable	■ Suitable										

		L	L <sub>1</sub>	A			SINGLE LIP				
COMPATIBLE MATERIALS	SINGLE LIP										
Gravoply™, Metallex™ & Gravoglas™, Acrylic	■							38,0 mm 1.496"	3,0 mm .120"	2,0 mm .080"	48745
Leathers and derived products	■							38,0 mm 1.496"	6,0 mm .236"	3,0 mm .120"	48746
Phenolic	■							50,0 mm 1.968"	9,0 mm .354"	4,0 mm .160"	48747
Gold/Silver	●										
Aluminium/Brass	●										
Steel/Stainless steel	■										
● Absolutely suitable	■ Suitable										

		L	L <sub>1</sub>	A			DOUBLE LIP				
COMPATIBLE MATERIALS	DOUBLE LIP										
Gravoply™, Metallex™ & Gravoglas™, Acrylic	■							38,0 mm 1.496"	4,0 mm .160"	2,0 mm .080"	48770
Leathers and derived products	■							38,0 mm 1.496"	14,0 mm .551"	3,0 mm .120"	48771
Phenolic	■							50,0 mm 1.968"	16,0 mm .630"	4,0 mm .160"	23073
Gold/Silver	●										
Aluminium/Brass	●										
Steel/Stainless steel	■										
● Absolutely suitable	■ Suitable										

		L	L <sub>1</sub>	A			DOUBLE LIP				
COMPATIBLE MATERIALS	DOUBLE LIP										
Gravoply™, Metallex™ & Gravoglas™, Acrylic	●							50,0 mm 1.968"	12,0 mm .472"	4,0 mm .160"	23072
Leathers and derived products	■										
Phenolic	■										
Gold/Silver	■										
● Absolutely suitable	■ Suitable										



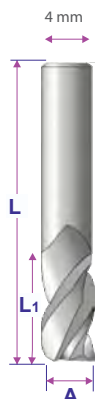
## MACHINING

CARBIDE

A

L<sub>1</sub>

L



23079	■	2,00 mm .080"	4,00 mm .160"	25,0 mm .984"
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COMPATIBLE MATERIALS

Gravply™, Metallex™ & Gravoglas™, Acrylic

Gold/Silver

Aluminium/Brass

Steel/Stainless steel

TRIPLE LIP



● Absolutely suitable

■ Suitable

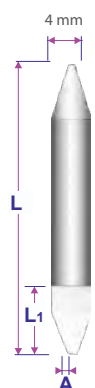
## ENGRAVING

CARBIDE

A

L<sub>1</sub>

L



48757	—	0,25 mm .010"		
48758	—	0,32 mm .013"		
48759	—	0,50 mm .020"	6,0 mm .236"	50,0 mm 1,968"
48760	—	0,75 mm .030"		
48761	—	1,25 mm .050"		



COMPATIBLE MATERIALS

Gravply™, Metallex™ & Gravoglas™, Acrylic

Leathers and derived products

Phenolic

Gold/Silver

Aluminium/Brass

Steel/Stainless steel

CONICAL WITH DOUBLE RECESS



● Absolutely suitable

■ Suitable

### Advice for use

#### Cutting and engraving plastics

Parameters	V xy (mm/s)	V Z (mm/s)	Conditions
Engraving	20 à 35	10 à 20	Chip collector (A)
Cutting	5 à 15	2 à 8	Chip collector (A)

#### Cutting and engraving brass

Parameters	V xy (mm/s)	V Z (mm/s)	Conditions
Engraving	10 à 15	5 à 10	Chip collector (A)
Cutting	4 à 10	2 à 8	Chip collector (A)

#### Cutting and engraving aluminium

Parameters	V xy (mm/s)	V Z (mm/s)	Conditions
Engraving	7 à 12	5 à 8	Lubrication : Surfex® Ref:30368 (B)
Cutting	2 à 5	1 à 5	Lubrication : Surfex® Ref:30368 (B)

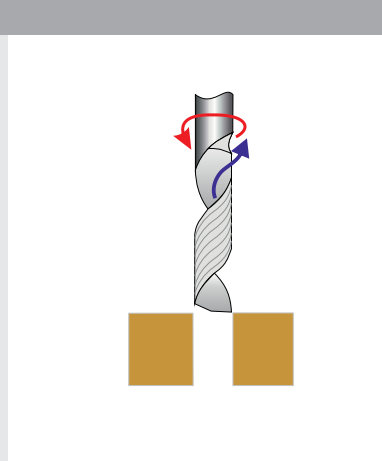
#### Cutting and engraving steel and stainless steel

Parameters	V xy (mm/s)	V Z (mm/s)	Conditions
Engraving	5 à 10	1 à 5	Lubrication : Tarfil™ Ref:19526 (C)
Cutting	1 à 3	1 à 2	Lubrication : Tarfil™ Ref:19526 (C)

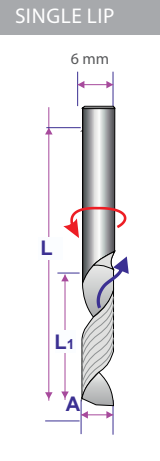


MACHINING

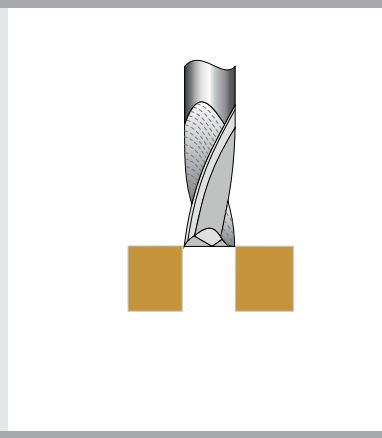
COMPATIBLE MATERIALS	SINGLE LIP
Gravply™, Metallex™ & Gravoglas™, Acrylic	☉
Leathers and derived products	
Phenolic	
Gold/Silver	
Aluminium/Brass	■
Steel/Stainless steel	
☉ Absolutely suitable	■ Suitable



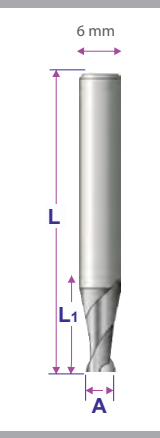
L	L <sub>1</sub>	A		
50,0 mm 1.968"	7,0 mm .275"	2,00 mm .080"	■	48748
50,0 mm 1.968"	10,0 mm .40"	3,00 mm .120"	■	48749
50,0 mm 1.968"	12,0 mm .472"	4,00 mm .160"	■	48750
50,0 mm 1.968"	15,0 mm .590"	6,00 mm .236"	■	48751



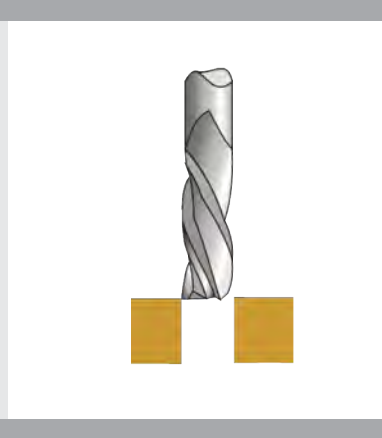
COMPATIBLE MATERIALS	DOUBLE LIPS
Gravply™, Metallex™ & Gravoglas™, Acrylic	■
Leathers and derived products	
Phenolic	
Gold/Silver	
Aluminium/Brass	☉
Steel/Stainless steel	
☉ Absolutely suitable	■ Suitable



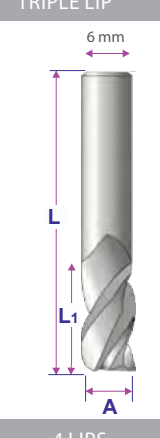
L	L <sub>1</sub>	A		
50,0 mm 1.968"	6,0 mm .236"	2,00 mm .080"	■	48772
50,0 mm 1.968"	6,0 mm .236"	3,00 mm .120"	■	70610
50,0 mm 1.968"	8,0 mm .315"	4,00 mm .160"	■	70614



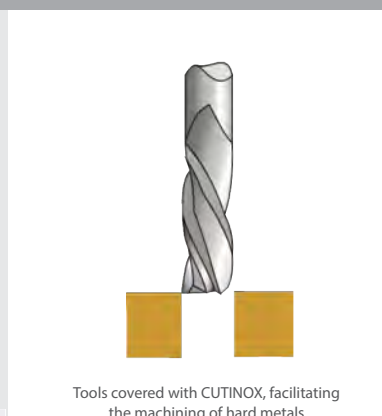
COMPATIBLE MATERIALS	TRIPLE LIP
Gravply™, Metallex™ & Gravoglas™, Acrylic	
Leathers and derived products	
Phenolic	
Gold/Silver	
Aluminium/Brass	☉
Steel/Stainless steel	
☉ Absolutely suitable	■ Suitable



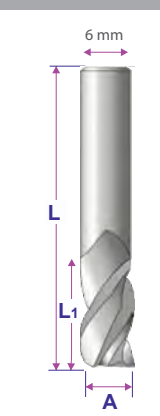
L	L <sub>1</sub>	A		
50,0 mm 1.968"	4,0 mm .160"	2,00 mm .080"	■	71765
50,0 mm 1.968"	6,0 mm .236"	3,00 mm .120"	■	71766
50,0 mm 1.968"	8,0 mm .315"	4,00 mm .160"	■	71767



COMPATIBLE MATERIALS	4 LIPS
Gravply™, Metallex™ & Gravoglas™, Acrylic	
Gold/Silver	
Aluminium/Brass	
Steel/Stainless steel	☉
☉ Absolutely suitable	■ Suitable



L	L <sub>1</sub>	A		
50,0 mm 1.968"	4,0 mm .160"	2,00 mm .080"	■	71768
50,0 mm 1.968"	8,0 mm .315"	3,00 mm .120"	■	71769
50,0 mm 1.968"	11,0 mm .433"	4,00 mm .160"	■	71770



Tools covered with CUTINOX, facilitating the machining of hard metals



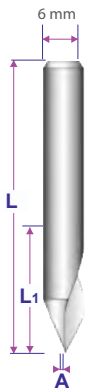
ENGRAVING

CARBIDE

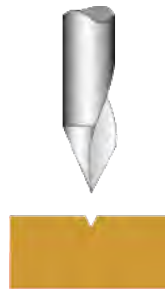
A

L<sub>1</sub>

L



23091 — 0,15 mm .005" — 57 mm 2.244"



CONICAL HELICAL

COMPATIBLE MATERIALS

Gravoply™, Metallex™ & Gravoglas™, Acrylic

Leathers and derived products

Phenolic

Gold/Silver

Aluminium/Brass

Steel/Stainless steel

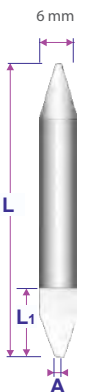


CARBIDE

A

L<sub>1</sub>

L



48762 — 0,32 mm .013"  
48763 — 0,50 mm .020" 8,0 mm .315" 57,0 mm 2.244"  
48765 — 1,25 mm .050"



CONICAL WITH DOUBLE RECESS

COMPATIBLE MATERIALS

Gravoply™, Metallex™ & Gravoglas™, Acrylic

Leathers and derived products

Phenolic

Gold/Silver

Aluminium/Brass

Steel/Stainless steel



Advice for use

Cutting and engraving plastics

Parameters	V xy (mm/s)	V Z (mm/s)	Conditions
Engraving	20 à 35	10 à 20	Chip collector (A)
Cutting	5 à 15	2 à 8	Chip collector (A)

Cutting and engraving brass

Parameters	V xy (mm/s)	V Z (mm/s)	Conditions
Engraving	10 à 15	5 à 10	Chip collector (A)
Cutting	4 à 10	2 à 8	Chip collector (A)

Cutting and engraving aluminium

Parameters	V xy (mm/s)	V Z (mm/s)	Conditions
Engraving	7 à 12	5 à 8	Lubrication : Surfex® Ref:30368 (B)
Cutting	2 à 5	1 à 5	Lubrication : Surfex® Ref:30368 (B)

Cutting and engraving steel and stainless steel

Parameters	V xy (mm/s)	V Z (mm/s)	Conditions
Engraving	5 à 10	1 à 5	Lubrication : Tarfil™ Ref:19526 (C)
Cutting	1 à 3	1 à 2	Lubrication : Tarfil™ Ref:19526 (C)



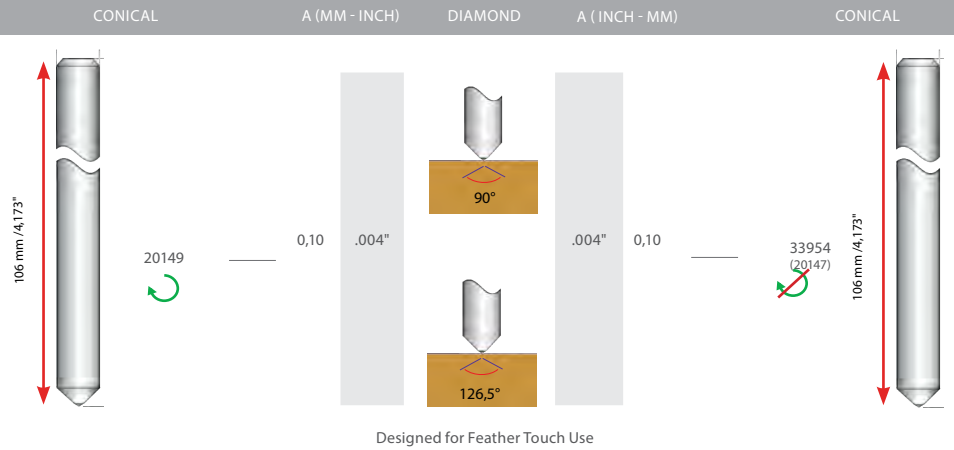
Rotiraju i Nerotiraju i



ONECUT 3.17 mm

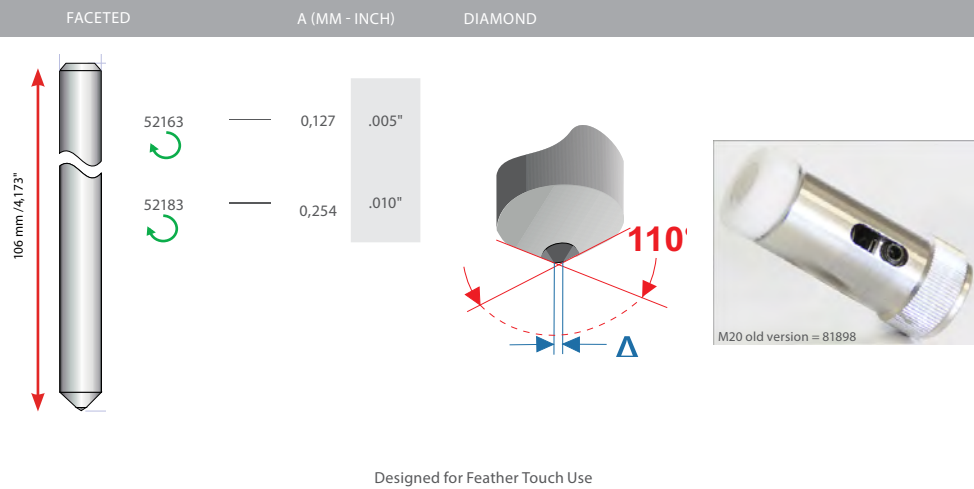
SCRIBING DIAMOND

COMPATIBLE MATERIALS	ROTATING	NON ROTATING
Gravply™, Metallex™ & Gravoglas™, Acrylic		
Leathers and derived products		
Glass & Mirrors	⊙	■
Gold/Silver	■	⊙
Aluminium/Brass	■	■
Steel/Stainless steel	■	
	⊙ Absolutely suitable	■ Suitable



FACETED DIAMOND

COMPATIBLE MATERIALS	FACETED DIAMOND
Gravply™, Metallex™ & Gravoglas™, Acrylic	
Leathers and derived products	
Glass & Mirrors	⊙
Gold/Silver	
Aluminium/Brass	■
Steel/Stainless steel	
	⊙ Absolutely suitable
	■ Suitable



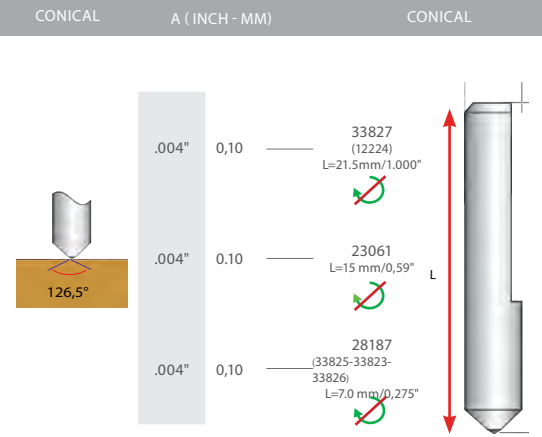
DIAMOND INSERT

COMPATIBLE MATERIALS	INSERTS DIAMOND
Gravply™, Metallex™ & Gravoglas™, Acrylic	
Leathers and derived products	
Glass & Mirrors	■
Gold/Silver	⊙
Aluminium/Brass	■
Steel/Stainless steel	■
	⊙ Absolutely suitable
	■ Suitable

Scribing insert:  
IM3 / IF3 DIAMOND  
VX DIAMOND SPINDLE  
Non Rotating

Scribing insert:  
Diamond spindle: M20 Diamond  
(old version)  
M20 old version

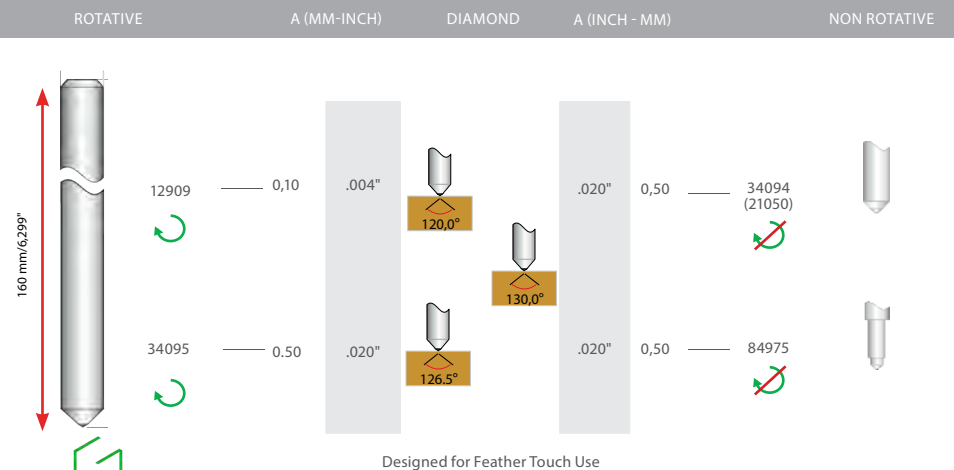
Scribing insert:  
Diamond nose (22884)  
Mod B - Im4 R & RM - M20 &  
M10 Jewel - RingCube - TagCube  
Non Rotating



ONECUT 4.36 mm

CONICAL & FACETED DIAMOND

COMPATIBLE MATERIALS	ROTATING DIAMOND		NON ROTATING DIAMOND	
	12909	34095	34094	84975
Glass & Mirror	⊙	■		
Aluminium/Brass	■	■	⊙	⊙
Gold/Silver	■		■	■
Steel/Stainless steel		⊙		
	⊙ Absolutely suitable	■ Suitable		

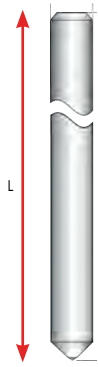


ONECUT 4.36 mm

FACETED DIAMOND

A (MM - INCH)

CONICAL

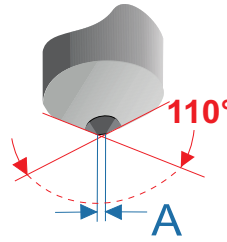


- 77659
- 34122
- 34123
- 34124

0,25	.010"	130mm/5.118"
0,25	.010"	160mm/6.299"
0,38	.015"	160mm/6.299"
0,76	.030"	160mm/6.299"

L

130mm/5.118"
160mm/6.299"
160mm/6.299"
160mm/6.299"



Designed for Feather Touch Use

FACETED DIAMOND

FACETED DIAMOND

COMPATIBLE MATERIALS

- Plastics
- Leathers and derived products
- Glass & Mirror
- Aluminium/Brass
- Gold/Silver
- Steel/Stainless steel

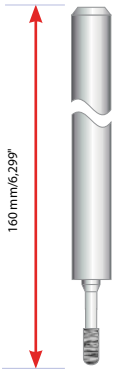
⊙ Absolutely suitable

■ Suitable

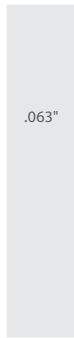
BALL DIAMOND

A (MM - INCH)

SPECIAL DIAMOND



1.60



Designed for Feather Touch Use

SPECIAL

DIAMOND BALL

COMPATIBLE MATERIALS

- Plastics
- Leathers and derived products
- Phenolic
- Steel/Stainless steel
- Glass & Mirrors
- Granite

⊙ Absolutely suitable

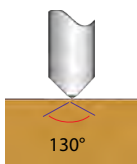
■ Suitable

SCRIBING DIAMOND

A (INCH - MM)

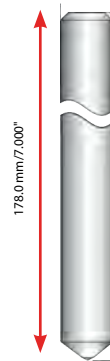
DIAMOND

Scribing diamond  
Non Rotative  
Engraving on ferrous metal and non ferrous metal.  
Pantograph IR & IRV  
CN machines using a 6.35mm col-let spindle.



.004" 0,10

34261 (11890)



SCRIBING DIAMOND

DIAMOND

COMPATIBLE MATERIALS

- Glass & Mirrors
- Gold/Silver
- Aluminium/Brass
- Steel/Stainless steel

⊙ Absolutely suitable

■ Suitable

TWINCUT

θ = 120°

DIAMOND

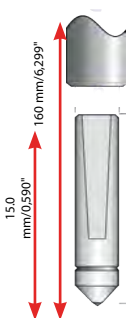
A (MM - INCH)

CONICAL

A (INCH - MM)

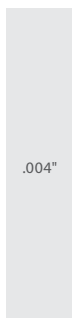
DIAMOND

θ = 126.5°



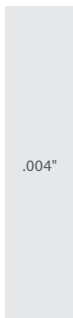
23060

0,10



.004"

120.0°

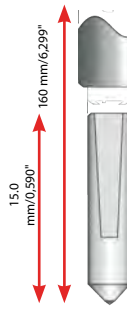


.004"

126.5°

0,10

23061



DIAMOND

COMPATIBLE MATERIALS

- Gravoply™, Metallex™ & Gravoglas™, Acrylic
- Gold/Silver
- Aluminium/Brass
- Steel/Stainless steel

⊙ Absolutely suitable

■ Suitable

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