

UBURR

THE MACHINE DEBURRING TOOL

UBurr deburring tools provide you with an innovating way to remove your burrs.

UBurr deburring tools providing a quick, effective, reliable and consistent deburring way of front and back side bore edges of a drilled hole in one single pass.

A simple and efficient spring mechanism for inserting and removing the blade. Special blade sharpening that preserves the hole bore.

UBurr tools range remove burrs with an efficient and consistent way.

This solution is faster, easier, and more economical for your hole deburring problems for a mass production process.

UBurr deburring tool is a great choice for batch runs or in a production environment when a reliable and stable performance is required.

UBurr deburring tools radially removes the burrs off the bore edges, without requiring the workpiece to be turned or the spindle to be stopped.

The tool blade designed to easily deburr unwanted material from the front and back side of the holes in seconds.

The tool blade designed to protect the hole bore and to unarm the internal surface.

The UBurr standard tool series range from Ø3 mm up to Ø25mm.

Custom made tools can be made for your specific applications.



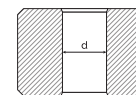
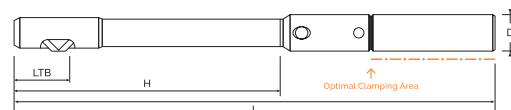
UBURR COMPLETE SETS TOOL & BLADE

Cat. No.	Tool No.	Blade No.	Description	Hole Diameter d	Shank Diameter D	LTB *	H	L
UB3000	UB1030	UB2030	NMT-UB-d030-H29-D08-L85 + B	3	8	9.3	29	85
UB3001	UB1035	UB2030	NMT-UB-d035-H29-D08-L85 + B	3.5	8	9.3	29	85
UB3002	UB1040	UB2030	NMT-UB-d040-H43-D08-L90 + B	4	8	12.2	43	90
UB3003	UB1045	UB2030	NMT-UB-d045-H43-D08-L90 + B	4.5	8	12.2	43	90
UB3004	UB1050	UB2030	NMT-UB-d050-H53-D08-L115 + B	5	8	13.2	53	115
UB3005	UB1055	UB2060	NMT-UB-d055-H53-D08-L115 + B	5.5	8	13.2	53	115
UB3006	UB1060	UB2060	NMT-UB-d060-H53-D08-L115 + B	6	8	11.6	53	115
UB3007	UB1065	UB2060	NMT-UB-d065-H53-D08-L115 + B	6.5	8	11.6	53	115
UB3008	UB1070	UB2060	NMT-UB-d070-H53-D08-L115 + B	7	10	11.6	53	115
UB3009	UB1075	UB2060	NMT-UB-d075-H53-D08-L115 + B	7.5	10	11.6	53	115
UB3010	UB1080	UB2060	NMT-UB-d080-H53-D10-L115 + B	8	10	11.6	53	115
UB3011	UB1085	UB2060	NMT-UB-d085-H53-D10-L115 + B	8.5	10	11.6	53	115
UB3012	UB1090	UB2060	NMT-UB-d095-H53-D10-L115 + B	9	10	11.6	53	115
UB3013	UB1095	UB2060	NMT-UB-d090-H53-D10-L115 + B	9.5	10	11.6	53	115
UB3014	UB1100	UB2060	NMT-UB-d0100-H63-D10-L125+B	10	10	13.3	80	125
UB3015	UB1105	UB2060	NMT-UB-d0105-H63-D10-L125+B	10.5	12	13.3	80	125
UB3016	UB1110	UB2060	NMT-UB-d0110-H63-D10-L125+B	11	12	13.3	80	125
UB3017	UB1115	UB2060	NMT-UB-d0115-H63-D10-L125+B	11.5	12	13.3	80	125
UB3018	UB1120	UB2060	NMT-UB-d0120-H63-D12-L125+B	12	12	13.3	80	125
UB3019	UB1125	UB2060	NMT-UB-d0125-H63-D12-L125+B	12.5	12	13.3	80	125

★ Custom made tools can be made for your specific applications | * Length to bottom

Boringcapaciteit nominale diameter + 0.5mm.

Voorbeeld: UB3014 - boringcapaciteit dia. 10 mm t/m 10.50 mm



Blade Item No. For Hole Diameter d mm

UB2030	4.5 - 3.0
UB2060	25.0 - 5.0

TOOL

NMT NOGA Machine Tools	UB - UBURR	d-Hole Diameter	H-Neck Down Length	D Shank Diameter	L Total Length
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CUTTING CONDITIONS

P	Steel
M	Stainless Steel
K	Cast Iron
N	Aluminum
S	Titanium/Inconel
H	Hard Material

★ Coated blades on request

HSS

Vc=m/min	Fz=mm/tooth
45.0 - 25.0	0.1 - 0.05
30.0 - 15.0	0.08 - 0.05
35.0 - 20.0	0.1 - 0.05
60.0 - 40.0	0.12 - 0.05
15.0 - 10.0	0.08 - 0.05
30.0 - 15.0	0.08 - 0.05

HSS + COATING TiN

★

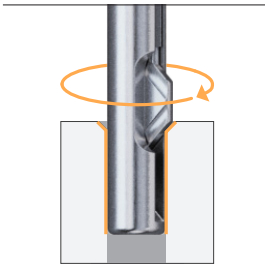
Vc=m/min	Fz=mm/tooth
65.0 - 45.0	0.1 - 0.05
55.0 - 30.0	0.08 - 0.05
55.0 - 35.0	0.1 - 0.05
75.0 - 50.0	0.12 - 0.05
20.0 - 15.0	0.08 - 0.05
35.0 - 20.0	0.08 - 0.05

UBURR: THE TOOL PATH

ONE PASS SOLUTION TO HOLE-DEBURRING

1

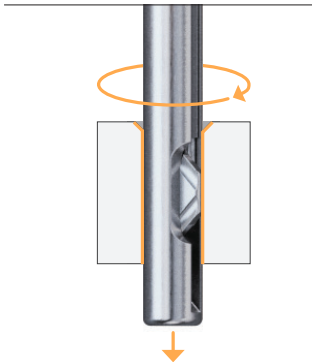
The UBURR tools remove the burr from the front hole surface by a unique flexible blade.



2

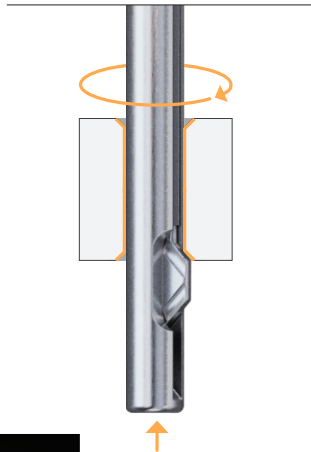
The UBURR blade enters into the tool pocket automatically as the pressure is increasing on the blade.

The unique geometry prevents the blade to damage the surface inside the hole.



3

The UBURR tools remove the burr from the back hole surface with the same spindle direction by going up.



1



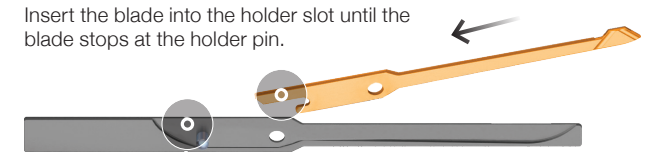
3



BLADE INSERTION

1

Insert the blade into the holder slot until the blade stops at the holder pin.



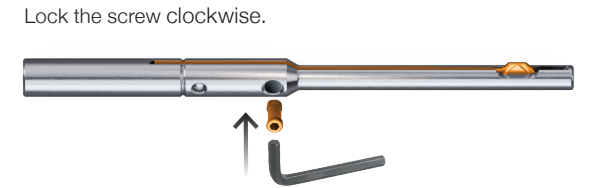
2

Push the blade into the tool pocket.



3

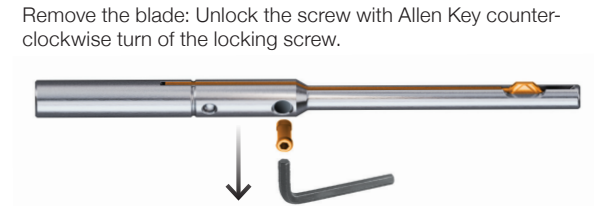
Lock the screw clockwise.



BLADE REMOVAL

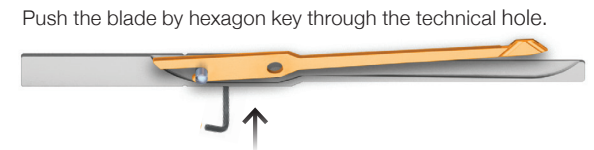
1

Remove the blade: Unlock the screw with Allen Key counter-clockwise turn of the locking screw.



2

Push the blade by hexagon key through the technical hole.



3

Pull up the blade from the holder.



UBURR TOOLS & BLADES**UBURR**

Deburring the front and back of a drilled through hole.

UBurr deburring tools providing
a quick, effective, reliable and
consistent deburring way of front and
back side bore edges of a drilled hole
in one single pass

Efficient and convenient tools for long-term work and competitive price.

Ø3 mm up to Ø25 mm

✳ Custom made tools available on request

Tool Item No.	Description	Hole Diameter d	Shank Diameter D	LTB*	H	L
UB1030	NMT-UB-d030-H29-D08-L85	3	8	9.3	29	85
UB1035	NMT-UB-d035-H29-D08-L85	3.5	8	9.3	29	85
UB1040	NMT-UB-d040-H43-D08-L90	4	8	12.2	43	90
UB1045	NMT-UB-d045-H43-D08-L90	4.5	8	12.2	43	90
UB1050	NMT-UB-d050-H46-D08-L90	5	8	13.2	46	90
UB1055	NMT-UB-d055-H46-D08-L90	5.5	8	13.2	46	90
UB1060	NMT-UB-d060-H53-D08-L115	6	8	11.6	53	115
UB1065	NMT-UB-d065-H53-D08-L115	6.5	8	11.6	53	115
UB1070	NMT-UB-d070-H53-D10-L115	7	10	11.6	53	115
UB1075	NMT-UB-d075-H53-D10-L115	7.5	10	11.6	53	115
UB1080	NMT-UB-d080-H53-D10-L115	8	10	11.6	53	115
UB1085	NMT-UB-d085-H53-D10-L115	8.5	10	11.6	53	115
UB1090	NMT-UB-d090-H53-D10-L115	9	10	11.6	53	115
UB1095	NMT-UB-d095-H80-D10-L125	9.5	10	13.3	80	125
UB1100	NMT-UB-d100-H80-D10-L125	10	10	13.3	80	125
UB1105	NMT-UB-d105-H80-D12-L125	10.5	12	13.3	80	125
UB1110	NMT-UB-d110-H80-D12-L125	11	12	13.3	80	125
UB1115	NMT-UB-d115-H80-D12-L125	11.5	12	13.3	80	125
UB1120	NMT-UB-d120-H80-D12-L125	12	12	13.3	80	125
UB1125	NMT-UB-d125-H80-D12-L125	12.5	12	13.3	80	125
UB1130	NMT-UB-d130-H80-D16-L125	13	16	13.3	80	125
UB1135	NMT-UB-d135-H80-D16-L125	13.5	16	13.3	80	125
UB1140	NMT-UB-d140-H80-D16-L125	14	16	13.3	80	125
UB1145	NMT-UB-d145-H80-D16-L125	14.5	16	13.3	80	125
UB1150	NMT-UB-d150-H80-D16-L125	15	16	13.3	80	125
UB1155	NMT-UB-d155-H80-D16-L125	15.5	16	13.3	80	125
UB1160	NMT-UB-d160-H80-D16-L125	16	16	13.3	80	125
UB1165	NMT-UB-d165-H80-D16-L125	16.5	16	13.3	80	125
UB1170	NMT-UB-d170-H80-D16-L125	17	16	13.3	80	125
UB1175	NMT-UB-d175-H80-D16-L125	17.5	16	13.3	80	125
UB1180	NMT-UB-d180-H80-D16-L125	18	16	13.3	80	125
UB1185	NMT-UB-d185-H80-D16-L125	18.5	16	13.3	80	125
UB1190	NMT-UB-d190-H80-D16-L125	19	16	13.3	80	125
UB1195	NMT-UB-d195-H80-D20-L125	19.5	20	13.3	80	125
UB1200	NMT-UB-d200-H80-D20-L125	20	20	13.3	80	125
UB1205	NMT-UB-d205-H80-D20-L125	20.5	20	13.3	80	125
UB1210	NMT-UB-d210-H80-D20-L125	21	20	13.3	80	125
UB1215	NMT-UB-d215-H80-D20-L125	21.5	20	13.3	80	125
UB1220	NMT-UB-d220-H80-D20-L125	22	20	13.3	80	125
UB1225	NMT-UB-d225-H80-D25-L125	22.5	25	13.3	80	125
UB1230	NMT-UB-d230-H80-D25-L125	23	25	13.3	80	125
UB1235	NMT-UB-d235-H80-D25-L125	23.5	25	13.3	80	125
UB1240	NMT-UB-d240-H80-D25-L125	24	25	13.3	80	125
UB1245	NMT-UB-d245-H80-D25-L125	24.5	25	13.3	80	125
UB1250	NMT-UB-d250-H80-D25-L125	25	25	13.3	80	125

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* All measurements are in mm unless mentioned otherwise | * Length to bottom

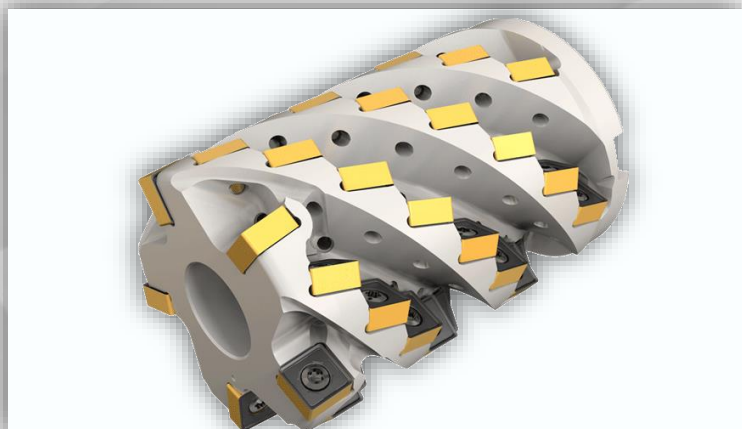
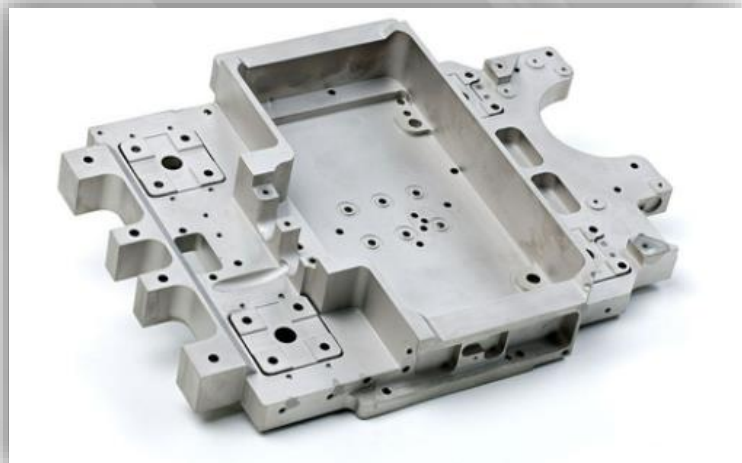


UBURR

ONE PASS SOLUTION TO FRONT
AND BACK HOLE-DEBURRING

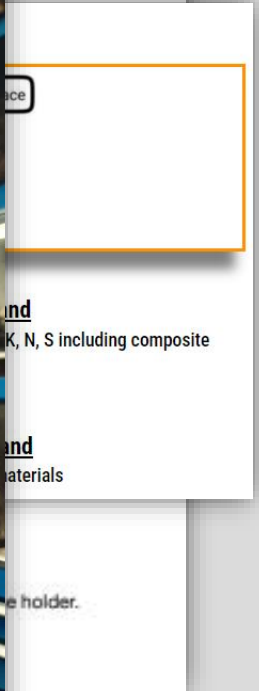
UBURR-Blades

ONE PASS SOLUTION TO FRONT AND BACK HOLE-DEBURRING



ONE PASS voor ontbramen van voor- en achterzijde van gaten

- **Tijdbesparing**
- **Consistente resultaten zonder machine-stop**
- **Betrouwbaarheid en duurzaamheid**
- **Eenvoudige mesvervanging**
- **Kraspreventie**
- **Minimaal aantal mes-typen nodig**
- **Inzetbaar diverse op materialen**



and
K, N, S including composite

and
materials

e holder.

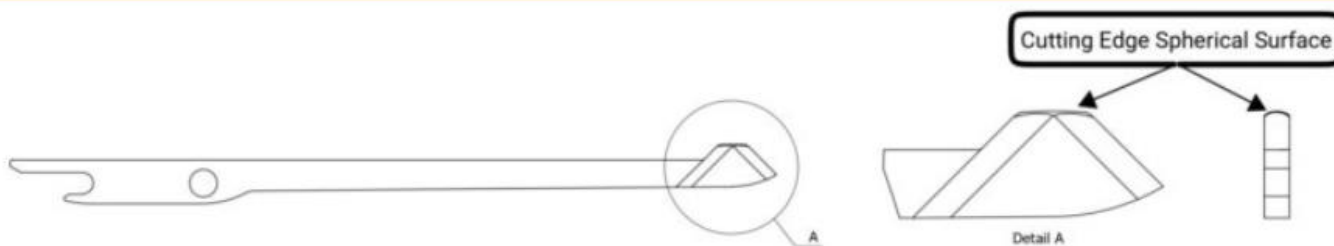


Ød Range of Ø2.5-25mm (.098-.984")

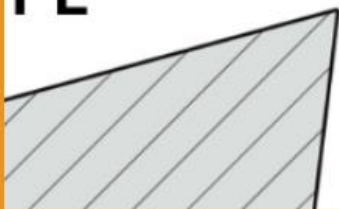


SIZE 2.5 BLADE ⁽¹⁾ FOR PILOT HOLE Ø2.5 (0.098") ≤ d < Ø3.0 (0.118")			
BLADE SKU	DESIGNATION	DESCRIPTION	
NEW! UB2020 ⁽¹⁾	UB-TSB-2.5-PL	HSS Blade size 2.5 without coating and type P chip-former	
NEW! UB2022 ⁽¹⁾	UB-TSB-2.5-PL-NCT	HSS Blade size 2.5 with TiAlN coating and type P chip-former	
SIZE 3 BLADE FOR PILOT HOLE Ø3.0 (0.118") ≤ d < Ø5.0 (0.197")			
BLADE SKU	DESIGNATION	DESCRIPTION	
UB2030	UB-TSB-3-PL	HSS blade size 3 without coating and type P chip-former	
UB2032	UB-TSB-3-PL-NCT	HSS blade size 3 with TiAlN coating and type P chip-former	
NEW! UB2034	UB-TSB-3-ML-NCT	HSS blade size 3 with TiAlN coating and type M chip-former	
NEW! UB2036	UB-SCB-3-PL-NCT	Carbide blade size 3 with TiAlN coating and type P chip-former	
NEW! UB2038	UB-SCB-3-ML-NCT	Carbide blade size 3 with TiAlN coating and type M chip-former	
SIZE 5 BLADE FOR PILOT HOLE d ≥ Ø5.0 (0.197")			
BLADE SKU	DESIGNATION	DESCRIPTION	
UB2060	UB-TSB-5-PL	HSS blade size 5 without coating and type P chip-former	
UB2062	UB-TSB-5-PL-NCT	HSS blade size 5 with TiAlN coating and type P chip-former	
NEW! UB2063	UB-TSB-5-ML-NCT	HSS blade size 3 with TiAlN coating and type M chip-former	
NEW! UB2067	UB-SCB-5-PL-NCT	Carbide blade size 5 with TiAlN coating and type P chip-former	
NEW! UB2069	UB-SCB-5-ML-NCT	Carbide blade size 5 with TiAlN coating and type M chip-former	

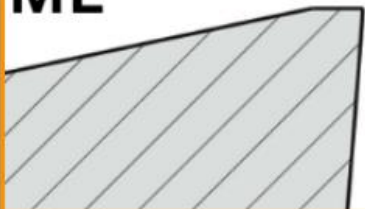
Blade Cutting Edge Geometry



PL



ML



PL – Positive cutting land

Suitable for all around purpose and ISO P, M, K, N, S including composite materials

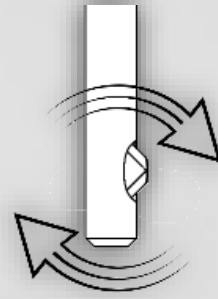
ML – Medium cutting land

Suitable for ISO P, M, K, S, H materials

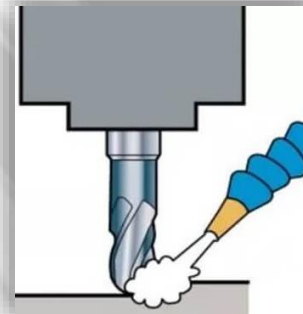


UBURR-Machining Werkwijze

- **Gereedschapsrotatie:** de **UBURR**-gereedschappen zijn geschikt voor rechtsdraaiend bewerken en klokwijzerzin rotatie.



- **Koeling:** de **UBURR**-ontbraamgereedschappen moeten werken met externe koeling om spanen en krullen uit de snijzone te verwijderen, soepele spaanafvoer te garanderen, en tevens voor betere temperatuurbeheersing om oververhitting te vermijden en de langere standtijd te behouden.



MATERIAL GROUPS

Based on ISO 513 and VDI

Based on ISO 513 and VDI							HSS Blades		Solid Carbide Blades								
ISO	Material		Condition	Hardness HB	Material Group No.	As is		v _c - cutting speed ⁽¹⁾		v _c - cutting speed ⁽¹⁾		f _z - cutting feed ⁽¹⁾		Recommended Chip-former	Coolant		
						AISI/SAE/ASTM	DIN W.-Nr.	Uncoated		Coated		Coated				mm/t	ipt
								m/min. / (sfm)	m/min. / (sfm)	m/min. / (sfm)	m/min. / (sfm)	m/min. / (sfm)	m/min. / (sfm)				
P	Non-alloy steel and cast steel, free cutting steel	<0.25% C	Annealed	125	1	1020	1.0044	25-45 / (80-150)	45-65 / (100-165)	60-120 / (200-360)	0.08-0.20	0.003-0.008	PL / ML	Air / Wet			
		≥0.25% C	Annealed	190	2	1035	1.0501										
		<0.55% C	Quenched and tempered	250	3	1045	1.1201										
		≥0.55% C	Annealed	220	4	1055	1.0535										
			Quenched and tempered	300	5	1060	1.1221										
	Low alloy and cast steel (less than 5% of alloying elements)	Quenched and tempered	Annealed	200	6	G92600	1.5028	20-45 / (65-150)	35-65 / (115-165)	50-120 / (165-395)	0.08-0.20	0.003-0.008	PL / ML				
			275	7	4130	1.7218											
			300	8	4142	1.2332											
	High alloyed steel, cast steel and tool steel	Quenched and tempered	350	9	5045	1.7006	20-40 / (65-130)	35-55 / (115-180)	50-100 / (165-330)								
			Annealed	200	10	H13	1.2344	15-35 / (50-115)	30-50 / (100-165)	45-90 / (150-295)	0.08-0.15	0.003-0.006	PL / ML				
Quenched and tempered	325	11	M33	1.3249													
Stainless steel and cast steel	Ferritic/martensitic	200	12	420	1.4021												
	Martensitic	240	13														
M	Stainless steel and cast steel		Austenitic, duplex	180	14	304L	1.4306	15-30 / (50-100)	30-55 / (100-180)	50-100 / (165-330)	0.08-0.15	0.003-0.006	PL	Wet			
K	Gray cast iron (GG)	Ferritic / pearlitic	180	15	Class 25	0.6015	20-35 / (65-115)	35-55 / (115-180)	60-120 / (200-395)	0.08-0.25	0.003-0.012	PL	Air / Wet				
		Pearlitic / martensitic	260	16	Grade H20	0.36037											
	Nodular cast iron (GGG)	Ferritic	160	17	60-40-18	0.7043	30-70 / (100-230)	40-90 / (130-295)	50-100 / (165-330)	0.08-0.20	0.005-0.008	PL					
		Pearlitic	250	18	F33500	0.7050											
	Malleable cast iron	Ferritic	130	19	A47	0.8135											
Pearlitic		230	20	A220 Class	0.8155												
N	Aluminum-wrought alloys	Not hardenable	60	21	5005	3.3315	50-70 / (165-230)	75-120 / (245-395)	100-160 / (330-525)	0.10-0.30	0.004-0.012	PL	Wet				
		Hardenable	100	22	7075	3.4365											
	Aluminum-cast alloys	≤12% Si	75	23	518.0	3.3292											
		>12% Si	90	24	515.0	3.3241											
	Copper alloys	>1% Pb	High temperature	130	25	390.0	30-60 / (100-200)	45-100 / (150-330)	90-130 / (295-425)	0.10-0.30	0.004-0.012	PL					
		Free cutting	110	26	C36000	2.0375											
		Brass	90	27	C22000	2.0230											
		Electrolytic copper	100	28	C63000	2.0966											
	Non metallic	Duroplastics, fiber plastics	70 Shore D	29	Bakelite		60-100 / (195-330)	90-150 / (295-490)	180-305 / (600-1000)	0.10-0.30	0.004-0.012	PL					
		Hard rubber	55 Shore D	30	Ebonite												
S	High temperature alloys	Fe based	Annealed	200	31	330	1.4864	10-15 / (33-50)	15-35 / (50-115)	40-80 / (130-260)	0.10-0.20	0.005-0.008	PL				
			Hardened	280	32	S590	1.4977										
		Ni or Co based	Annealed	250	33	Incoloy 825	2.4858	Not recommended	10-15 / (33-50)	25-40 / (80-130)							
			Hardened	350	34	Inconel 718	2.4668										
	Titanium alloys	Cast	320	35	Nimocast PK24	2.4674	10-15 / (33-50)	15-20 / (50-65)	30-60 / (100-180)								
		Pure	190	36	Titanium G.1	3.7024											
		Alpha+beta alloys, hardened	310	37	Titanium G.5	3.7165											
H	Hardened steel	Hardened	55 HRC	38	HARDOX 500		Not recommended	10-20 / (30-65)	30-50 / (100-165)	0.04-0.06	0.0015-0.0024	ML / HL	Air				
		Hardened	60 HRC	39	HARDOX Extreme			10-15 / (30-50)	30-40 / (100-130)								
	Chilled cast iron	Cast	400	40	A532 IIA 25% Cr	0.9650		15-20 / (50-65)	45-50 / (145-165)								
	Cast iron	Hardened	55 HRC	41	A532 IID 20% CrMo	0.9645		10-20 / (30-65)	30-50 / (100-165)								
C	Carbon fiber reinforced plastics (CFRP)	Cured	M70 to M90 HRM		-		Not recommended	90-140 / (295-460)	0.05-0.25	0.002-0.010	PL and special diamond coating NCD or DLC	Air / Wet					
	Glass fiber reinforced plastics (GFRP)		M80 to M100 HRM					90-350 / (295-1150)									



UBURR

Blade verandering

BLADE INSERTION

UBURR

- 

Insert the blade into the holder slot until the blade stops at the holder pin.
- 

Push the blade to the tool pocket.
- 

Lock the screw clockwise.

BLADE REMOVAL

UBURR

- 

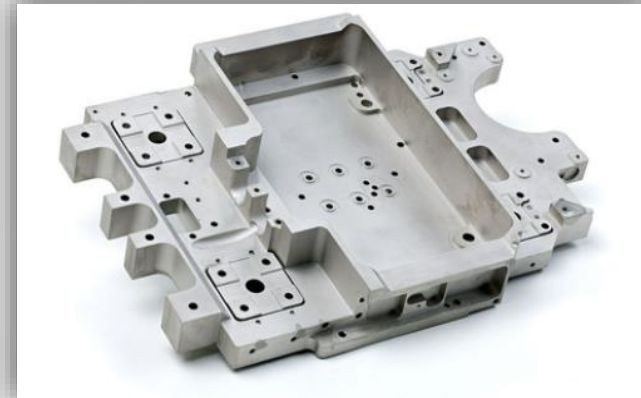
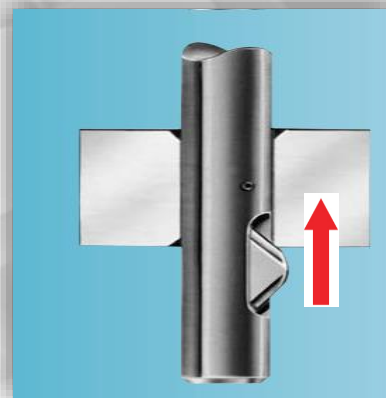
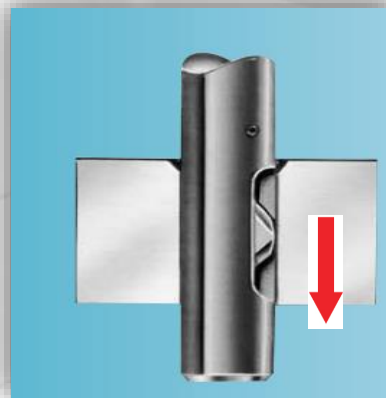
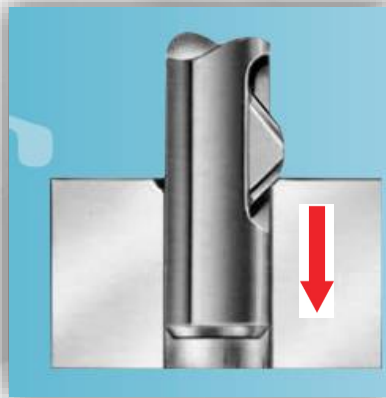
Remove the blade: Unlock the screw with Allen Key counterclockwise turn of the locking screw.
- 

Push the blade by hexagon key through the technical hole.
- 

Pull up the blade from the holder.

UBURR Tool path

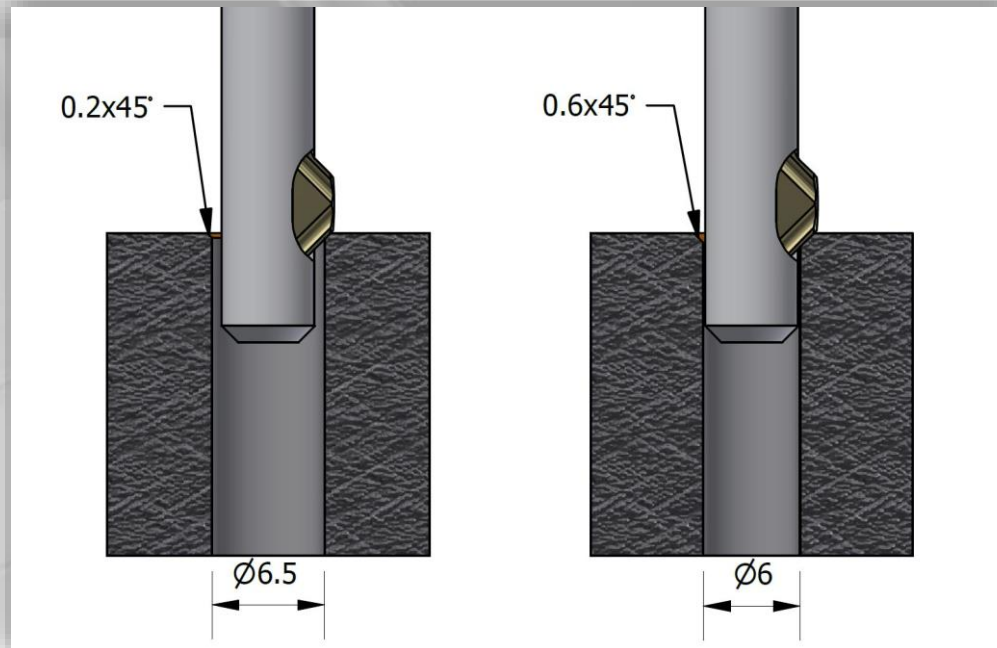
1. **UBURR**-gereedschappen verwijderen de braam van het voorvlak van het gat met een uniek flexibel mes.
2. Het mes schuift automatisch in de houder terug naarmate de druk op het mes toeneemt.
3. De gereedschappen verwijderen de braam van de achterzijde van het gat in dezelfde spilrichting door omhoog te bewegen.



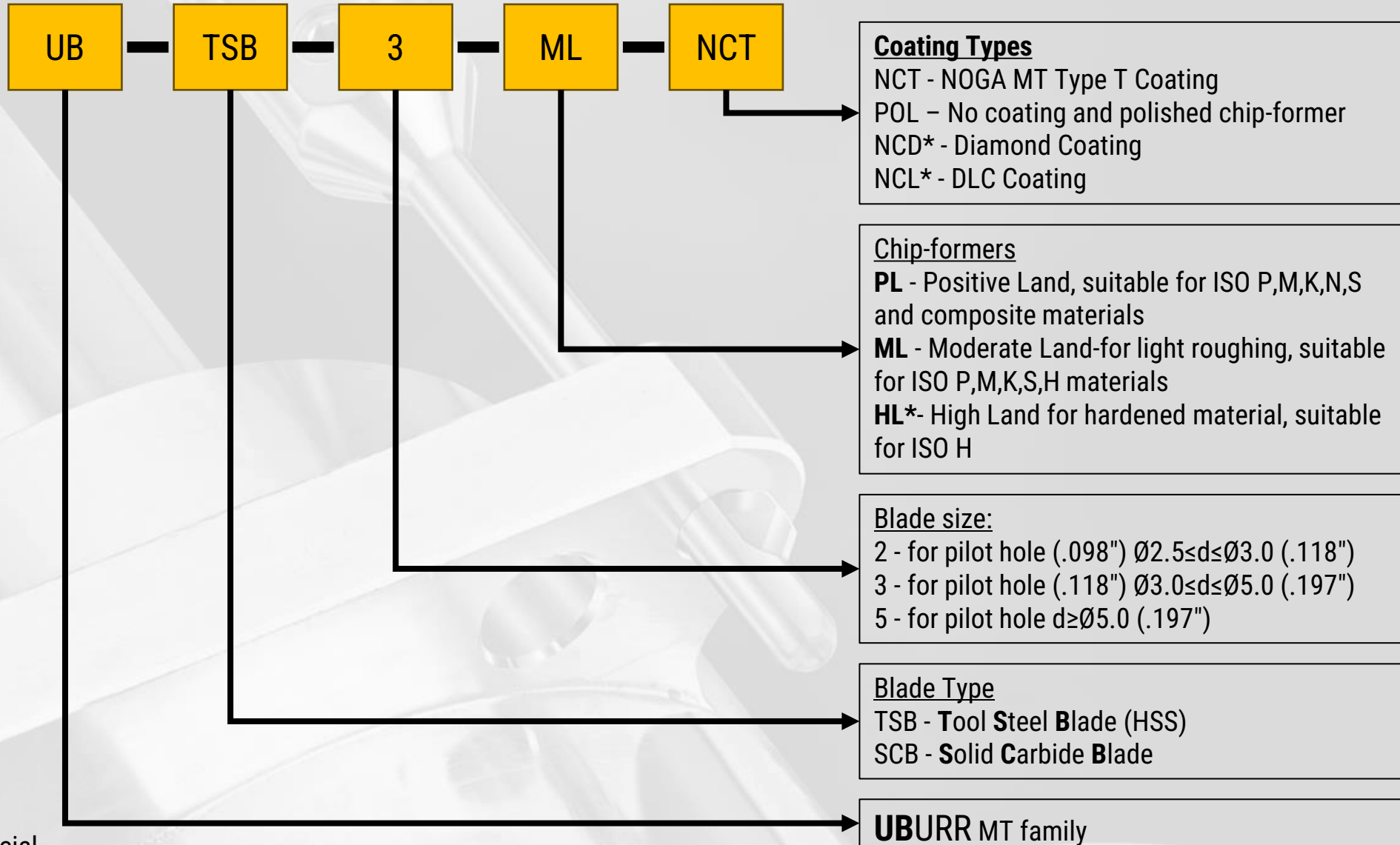
UBURR

Tool selection

- De afschuining kan variëren tussen **0,2–0,5 mm (.008"–.02")**.
- Indien de diameter van het vorgeboorde gat dicht bij de minimale aanbevolen diameter van het gereedschap ligt (zoals vermeld in de artikeltabel), wordt de afschuining groter, en omgekeerd.
- Bijvoorbeeld: met het gereedschap **UBS-d060-C08-H53-L115 (SKU UB3006)** en een vorgeboord gat van $\varnothing 6,0$ mm ontstaat een grotere afschuining vergeleken met een gat van $\varnothing 6,5$ mm.

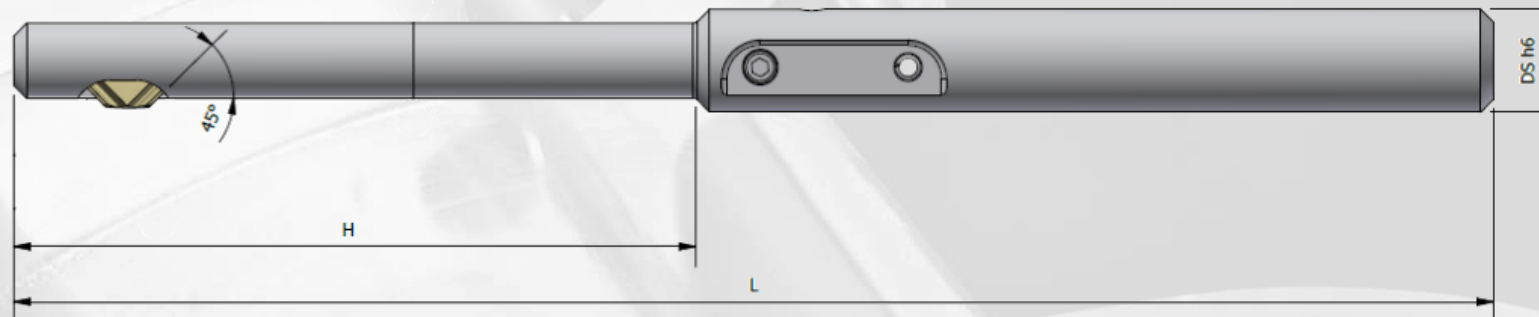
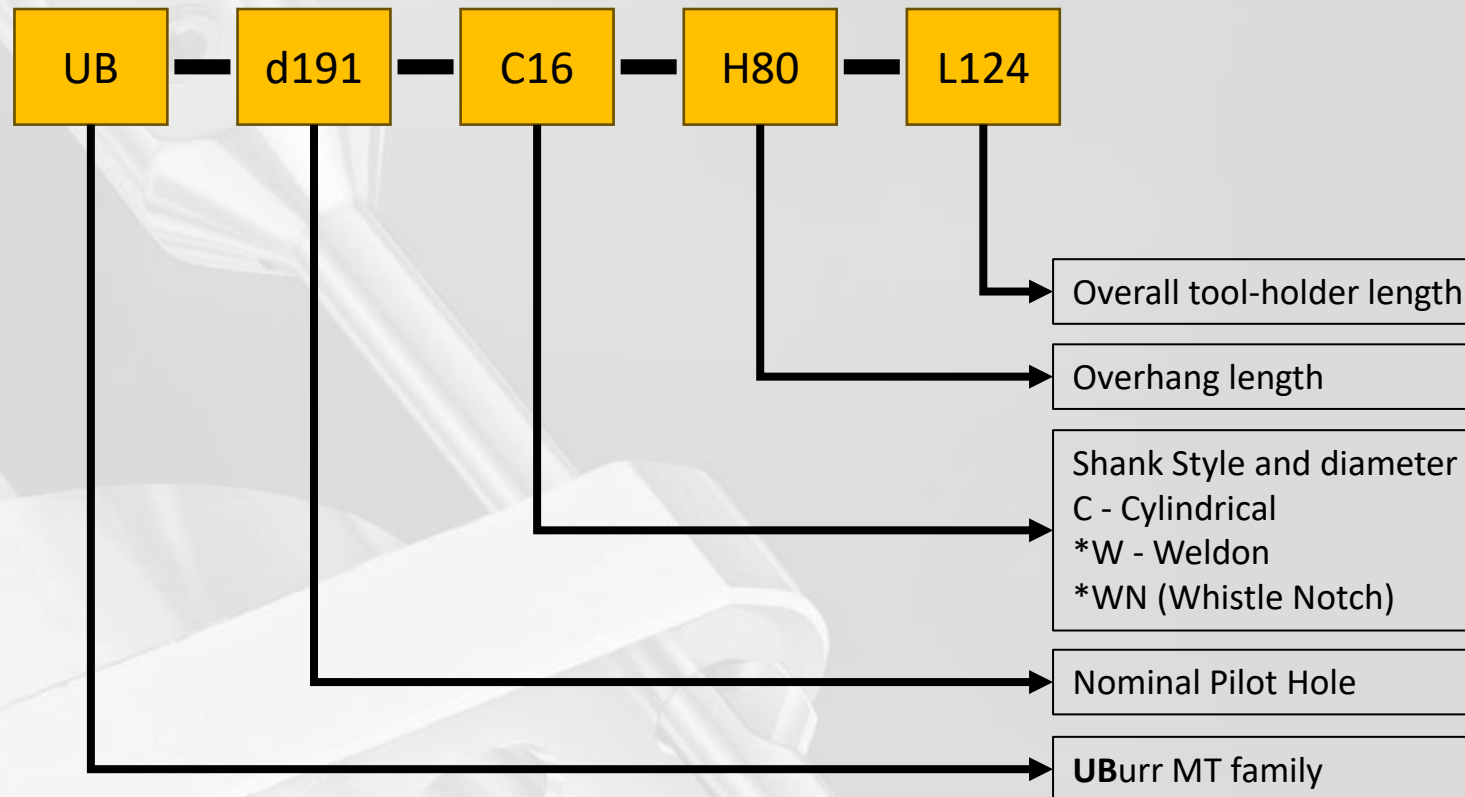


Blades coding and ordering



*Available only as special

Tool-holders coding and ordering



UBURR

Case Study-Tool-holder

Industrie: Cutting Tools Manufacture

Doel: Verwijderen van bramen van de achterzijde van geboorde gaten voor klemschroeven

Toepassingsdetails:

- Material: AISI 4340, Wr N.1.6928 with 45HRc hardness
- Pilot Holes: Ø5mm / .197"
- Pilot Hole Length: H1=50mm / 1.97"
- Machine: Hermle C50
- Production Volume: 5000 boors/month for one family of tools.

Tool: UB1050; UB-d050-C08-H53-L115

Blade: UB2060; UB-TSB-5-PL

Machining parameters:

Ød		S	F		v _c		f _z		Coolant
Pilot Holde		Spindle Speed	Table Feed		Cutting Speed		Feed per tooth		
mm	Inch	RPM	mm/min	inch/min.	m/min.	sfm	mm	inch	
5.0	0.315	2500	250	10	40	131	0.10	0.004	External Air

Results: The burrs were successfully removed, leaving 0.25x45° chamfers.

The customer saved roughly ~14 hours on manual work in 1 month.

Before



After



Case Study-Transmission Shaft

Industrie: Automotive

Doel: Vergelijkingstesten met concurrenten voor het verwijderen van bramen aan voor- en achterzijde van geboorde gaten

Toepassingsdetails:

- Part: Transmission Shaft
- Material: AISI 4340, Wr N.1.6928
- Pilot Holes: Ø2.5 and Ø3.0mm / .098 and .315"
- Pilot Holes Length: H1=35mm / 1.38"
- Production Volume: 45000 bores/month

Tools:

- UB1030; UB-d030-C08-H29-L85
- UB2180MS; UB-d025-C08-H29-L65

Blade: UB2030; UB-TSB-3-PL

Machining parameters:

Ød		S	F		v _c		f _z		Coolant
Pilot Holde		Spindle Speed	Table Feed		Cutting Speed		Feed per tooth		
mm	Inch	RPM	mm/min	inch/min.	m/min.	sfm	mm	inch	
2.5	0.098	2000	500	20	16	52	0.25	0.01	External Emulsion
3.0	0.118	2000	500	20	19	62	0.25	0.01	External Emulsion



Case Study-Transmission Shaft

Results:

	Ød	
	Pilot Holde	
	2.5mm / 0.098"	3.0mm / 0.118"
	Numbers of Holes	
NOGA UBURR (HSS Blade)	210	1300
Competitor (HSS Blade)	100	500

De klant uitte grote tevredenheid over de resultaten, met name de verbeterde standtijd en oppervlakteafwerking, bevestigd met een endoscoop.



Case Study-Medical Arthroscopy Scissors

Industrie: Medical

Doel: Bramen verwijderen van voor- en achterzijde van geboorde gaten voor artroscopiescharen.
Het artroscopiescharnier is een herbruikbaar systeem dat hoge kwaliteit, duurzaamheid en nauwkeurige tactiliteit integreert in elk instrument, om een optimale oplossing voor elke hoek te bieden.

Toepassingsdetails:

- Material: 17-4 PH, Wr N.1.4542
- Pilot Holes: Ø2.5 and Ø3.0mm / .098 and .315"
- Pilot Holes Length: H1=20mm and H2=6mm / .787" and .236"
- Machine: DMG MURI CMX 50U
- Production Volume: 7000 bores/month

Tool-holder

- UB2500; UBS-d025-C08-H29-L65
- UB3000; UBS-d030-C08-H29-L85

Blades

- UB2022; UB-TSB-2.5-PL-NCT
- UB2032; UBS-TSB-3.0-PL-NCT

Machining parameters:

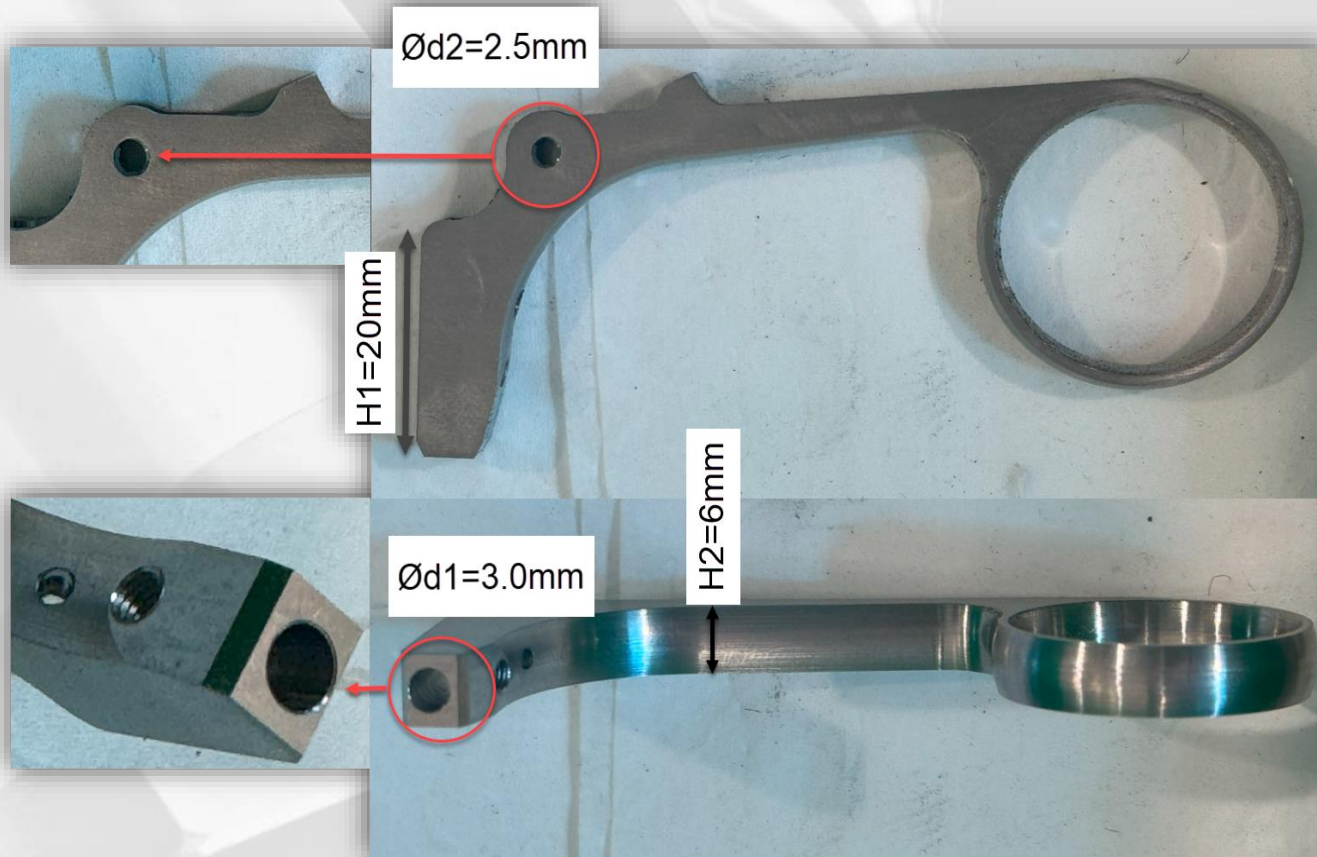
Ød		S	F		v _c		f _z		Coolant
Pilot Holde		Spindle Speed	Table Feed		Cutting Speed		Feed per tooth		
mm	Inch	RPM	mm/min	inch/min.	m/min.	sfm	mm	inch	
2.5	0.098	2000	500	20	16	52	0.25	0.01	External Emulsion
3.0	0.118	2000	500	20	19	62	0.25	0.01	External Emulsion



Case Study-Medical Arthroscopy Scissors

Resultaten: De bramen werden effectief verwijderd, resulterend in afschuiningen van $0,2 \times 45^\circ$.

De klant bespaarde ongeveer **20 uur handmatig werk** in één maand.



Case Study-Hardened Materials

Industrie: Algemeen

Doel: Testen van UBURR-gereedschappen op geharde materialen en verwijderen van bramen aan voor- en achterzijde van geboorde gaten.

Toepassingsdetails:

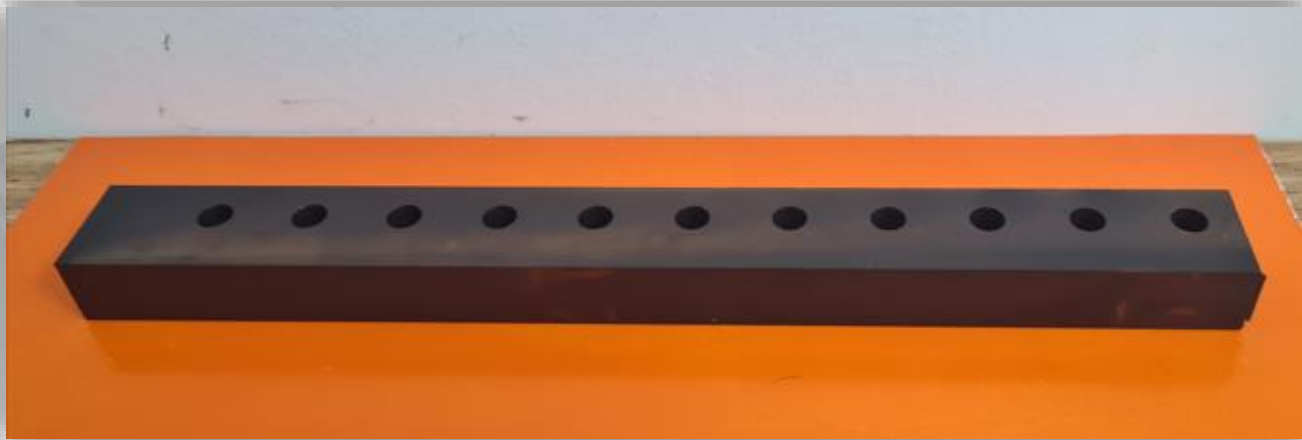
- Material: AISI H13, Wr N.1.2344 pallets with **60HRc hardness**
- Pilot Holes: Ø7mm / .276"
- Pilot Holes Length: H1=25mm / .984"
- Machine: DMG Mori Seiki AKIRA Mi745

Tool: UB1070; UB-d070-C08-H53-L115

Blade: UB2062; UB-TSB-5-PL-NCT (Coated with type T coating)

Machining parameters:

Ød		S	F		v _c		f _z		Coolant
Pilot Holde		Spindle Speed	Table Feed		Cutting Speed		Feed per tooth		
mm	Inch	RPM	mm/min	inch/min.	m/min.	sfm	mm	inch	
7.0	.276"	700	140	6	15	49	0.2	0.008	External Air



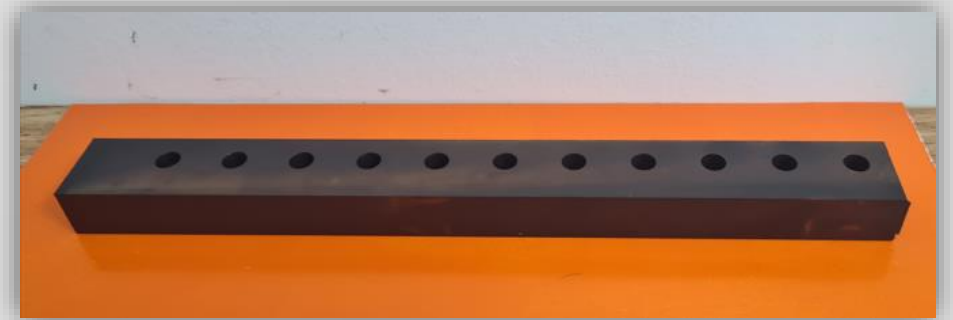
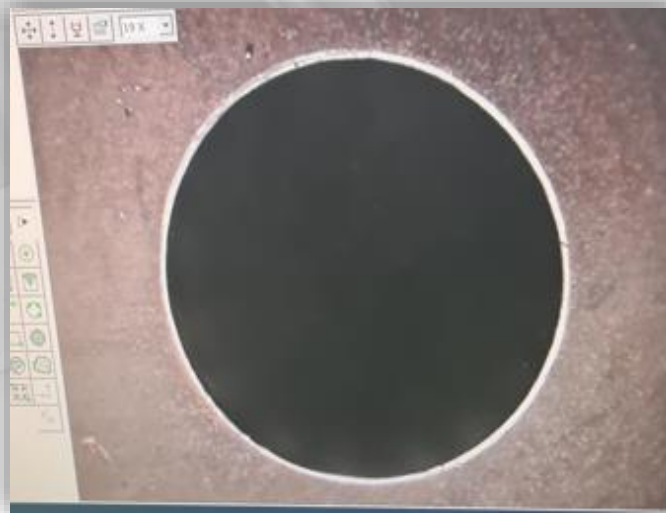
Case Study-Hardened Materials

Resultaten: De bramen werden effectief verwijderd, met afschuiningen van $0,2 \times 45^\circ$, zonder significante slijtage na 50 gaten.

Before



After



Case Study-Deburring threads

Industrie: Algemeen

Doel: Evalueren van UBURR-gereedschappen op gesneden schroefdraad en bramen verwijderen van voor- en achterzijde van geboorde gaten..

Toepassingsdetails:

- **Material:** AISI 4340, Wr N.1.6928 Tool Steel
with 38HRc hardness
- **Pilot Holes:** Ø8.5mm / 0.335"
- **Pilot Hole Length:** H1=20mm / 0.787"
- **Machine:** DMG Mori Seiki AKIRA Mi745

Tool: UB1085; UB-d085-C10-H53-L115

Blade: UB2060; UB-TSB-5-PL

Machining parameters:



Ød Pilot Holde		S Spindle Speed	F Table Feed		v _c Cutting Speed		f _z Feed per tooth		Coolant
mm	Inch	RPM	mm/min	inch/min.	m/min.	sfm	mm	inch	
8.5	0.335"	800	200	8	22	72	0.25	0.01	

Case Study-Deburring threads

Resultaten: De bramen werden effectief verwijderd, met afschuiningen van $0,2 \times 45^\circ$, zonder significante slijtage na 50 gaten.



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Case Study-Thailand

- **Oil & Gas industry**
- UB1110 UB-d110-C10-H80-L125
- Tool Dia 10.0mm
- Material: Cast Steel
- S=1500RPM
- F=300mm/min



Before



After



Precipitation Hardened AISI 17-4 PH (DIN W.-Nr. 1.2379 / SUS 630)

- **Hoge sterkte:** bezit sterke en harde eigenschappen, waardoor gereedschappen zware belastingen kunnen weerstaan en langdurig snijvermogen behouden.
- **Taatheid:** ondanks de sterkte blijft de taatheid goed, waardoor het schokken doorstaat zonder te breken en betrouwbaarheid in zware omstandigheden garandeert.
- **Slijtvastheid:** uitstekende weerstand tegen slijtage, minder schade, langere standtijd, minder vervangingen.
- **Verspaanbaarheid:** bekend om eenvoudige bewerkbaarheid, maakt het mogelijk om precieze en complexe gereedschapsontwerpen te realiseren.
- **Warmtebestendigheid:** behoudt prestaties bij hoge temperaturen, gunstig voor hoogsnelheid-bewerkingen.
- **Corrosiebestendigheid:** uitstekende weerstand tegen corrosie, ideaal in vochtige of chemische omgevingen, verlengt de levensduur van gereedschappen.
- **Milieuvriendelijk:** NOGA MT-gereedschappen ondergaan een passiveringsproces waardoor extra coatings en chemicaliën overbodig zijn. Dit vereenvoudigt het proces, vermindert de milieu-impact en zorgt voor een meer duurzame corrosiebescherming.

Thank you.

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