



ABREMAQ
PODER PARA TRANSFORMAR

**DISTRIBUIDOR
AUTORIZADO**



CATALOG
066

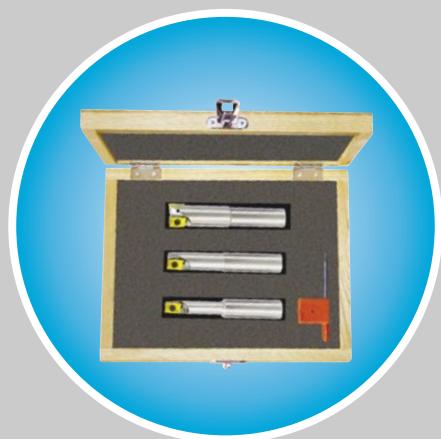
MIOO DEX™
indexable carbide tools



Boring



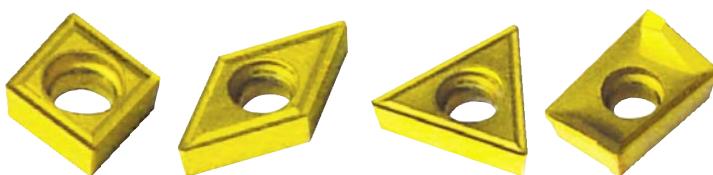
Turning



Milling



Only 4 types of ANSI standard carbide inserts required to cover this entire range of boring, chamfering, facing, milling, threading and turning applications.



CARBIDE INSERTS

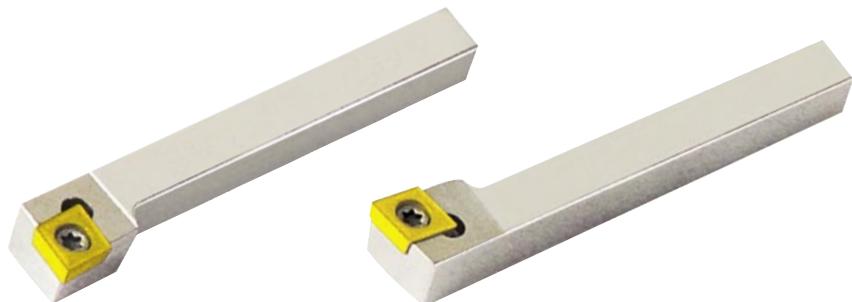
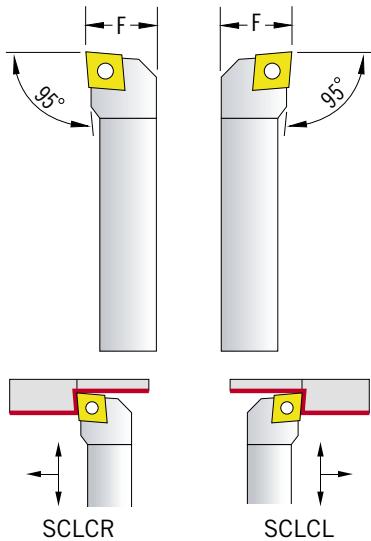
INSERT TYPE	PART NUMBER	ANSI STANDARD NOMENCLATURE	4 LAYER COATING	PRICE 10 PCS
○	50-1100	CCMT 21.51	TiC TiCN Al ₂ O ₃ TiN	81.00
◇	50-1200	DCMT 21.51	TiC TiCN Al ₂ O ₃ TiN	85.50
△	50-1300	TCMT 21.51	TiC TiCN Al ₂ O ₃ TiN	72.00
□	50-2100	APKT 1003 PDR	TiC TiCN Al ₂ O ₃ TiN	90.00

INDEXABLE INSERT HOLDERS

MIOO DEX™

90° Turning & Facing Tools 95° Approach

Each holder includes high precision
M2.5 x T-8 Torx Screw and Torx Key

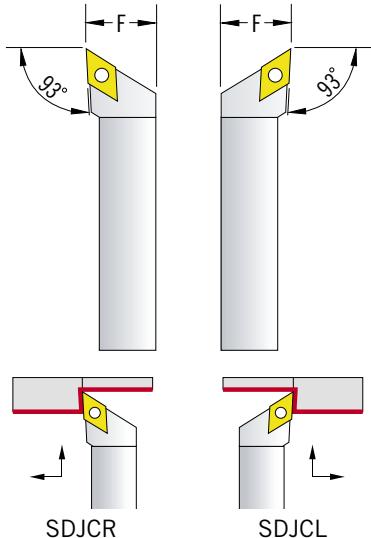


Utilizes CCMT 21.51 Insert, not included, see page 2.

TOOL NUMBER	DIMENSIONS			PRICE EACH	
	RIGHT HAND	LEFT HAND	TOOL HOLDER NOMENCLATURE		
10-3231	10-3232	SCLCR/L 0404 D2	1/4	2 1/2	.394
10-3233	10-3234	SCLCR/L 0505 D2	5/16	2 1/2	.394
10-3235	10-3236	SCLCR/L 0606 E2	3/8	2 3/4	.472
10-3237	10-3238	SCLCR/L 0808 F2	1/2	3	.629
10-3241	10-3242	SCLCR/L 1010 H2	5/8	4	.787

60° Turning & Facing Tools CNC Profile Turning

Each holder includes high precision
M2.5 x 0.45 RH-T8 Torx Screw and
Torx Key



Utilizes DCMT 21.51 Insert, not included, see page 2.

TOOL NUMBER	DIMENSIONS			PRICE EACH		
	RIGHT HAND	LEFT HAND	TOOL HOLDER NOMENCLATURE	SQUARE SHANK	OVERALL LENGTH	F OVER INSERT
10-3641	10-3642	SDJCR/L 0505 H2	5/16	4	.394	36.50
10-3651	10-3652	SDJCR/L 0606 H2	3/8	4	.472	42.75
10-3653	10-3654	SDJCR/L 0808 H2	1/2	4	.629	45.00
10-3615	10-3616	SDJCR/L 1010 H2	5/8	4	.787	49.95

MIOO DEX™

positive chip control

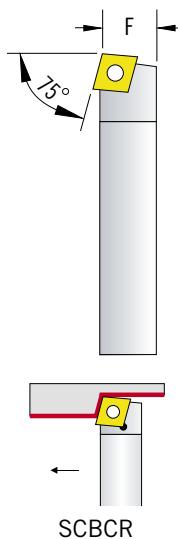
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INDEXABLE INSERT HOLDERS

MIOO DEX™

75° Thru-Turning Tools Utilizing 100° Unused RH Cutting Corner of Insert

Each holder includes high precision
M2.5 x T-8 Torx Screw and Torx Key

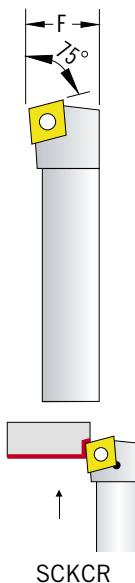


Utilizes CCMT 21.51 Insert, not included, see page 2.

TOOL NUMBER	TOOL HOLDER NOMENCLATURE	DIMENSIONS			PRICE EACH
		SQUARE SHANK	OVERALL LENGTH	F OVER INSERT	
10-3151	SCBCR 0404 D2	1/4	2 1/2	.267	29.95
10-3153	SCBCR 0505 D2	5/16	2 1/2	.267	32.50
10-3155	SCBCR 0606 E2	3/8	2 3/4	.330	36.50
10-3157	SCBCR 0808 F2	1/2	3	.460	39.95
10-3159	SCBCR 1010 H2	5/8	4	.574	44.25

75° Thru-Facing Tools Utilizing 100° Unused LH Cutting Corner of Insert

Each holder includes high precision
M2.5 x T-8 Torx Screw and Torx Key



Utilizes CCMT 21.51 Insert, not included, see page 2.

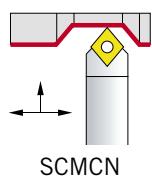
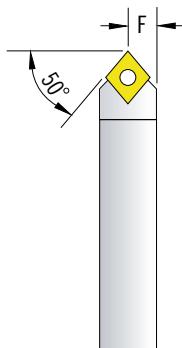
TOOL NUMBER	TOOL HOLDER NOMENCLATURE	DIMENSIONS			PRICE EACH
		SQUARE SHANK	OVERALL LENGTH	F OVER INSERT	
10-3211	SCKCR 0404 D2	1/4	2 1/2	.394	29.95
10-3212	SCKCR 0505 D2	5/16	2 1/2	.394	32.50
10-3213	SCKCR 0606 E2	3/8	2 3/4	.472	36.50
10-3215	SCKCR 0808 F2	1/2	3	.630	39.95
10-3217	SCKCR 1010 H2	5/8	4	.787	44.25

INDEXABLE INSERT HOLDERS

MIOO DEX™

Turning & Chamfering Tools 50° RH & LH

Each holder includes high precision
M2.5 x T-8 Torx Screw and Torx Key

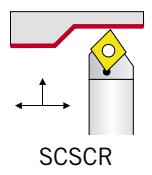
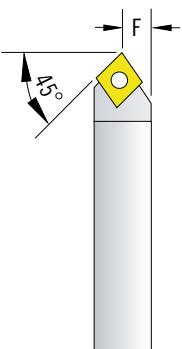


Utilizes CCMT 21.51 Insert, not included, see page 2.

TOOL NUMBER	TOOL HOLDER NOMENCLATURE	DIMENSIONS			PRICE EACH
		SQUARE SHANK	OVERALL LENGTH	F OVER INSERT	
10-3311	SCMCN 0404 D2	1/4	2 1/2	.157	29.95
10-3312	SCMCN 0505 D2	5/16	2 1/2	.157	32.50
10-3313	SCMCN 0606 E2	3/8	2 3/4	.189	36.50
10-3314	SCMCN 0808 F2	1/2	3	.250	39.95
10-3315	SCMCN 1010 H2	5/8	4	.315	44.25

Chamfering Tools 45° RH & 55° LH

Each holder includes high precision
M2.5 x T-8 Torx Screw and Torx Key



Utilizes CCMT 21.51 Insert, not included, see page 2.

TOOL NUMBER	TOOL HOLDER NOMENCLATURE	DIMENSIONS			PRICE EACH
		SQUARE SHANK	OVERALL LENGTH	F OVER INSERT	
10-3351	SCSCR 0404 D2	1/4	2 1/2	.157	29.95
10-3353	SCSCR 0505 D2	5/16	2 1/2	.157	32.50
10-3355	SCSCR 0606 E2	3/8	2 3/4	.189	36.50
10-3357	SCSCR 0808 F2	1/2	3	.250	39.95
10-3359	SCSCR 1010 H2	5/8	4	.315	44.25

MIOO DEX™

heat treated tool holders

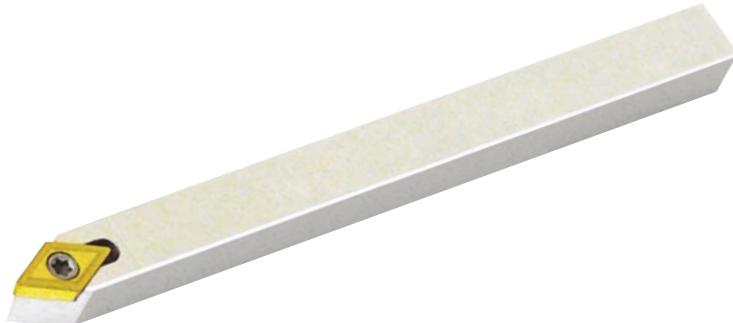
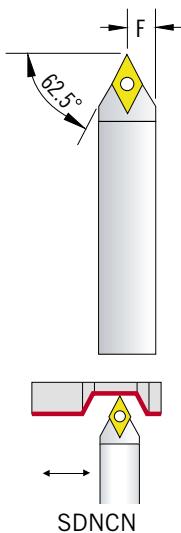
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INDEXABLE INSERT HOLDERS

MIOO DEX™

55° Threading Tools 'V' Turning

Each holder includes high precision M2.5 x 0.45 RH-T8 Torx Screw and Torx Key

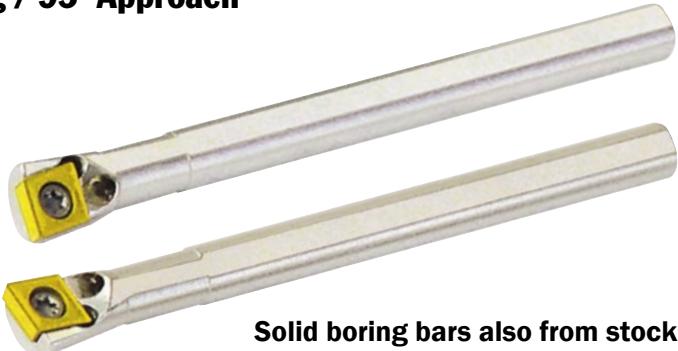
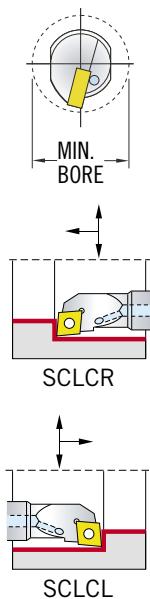


Utilizes DCMT 21.51 Insert, not included, see page 2.

TOOL NUMBER	TOOL HOLDER NOMENCLATURE	DIMENSIONS			PRICE EACH
		SQUARE SHANK	OVERALL LENGTH	F OVER INSERT	
10-3761	SDNCN 0505 H2	5/16	4	.157	36.50
10-3762	SDNCN 0606 H2	3/8	4	.189	42.75
10-3763	SDNCN 0808 H2	1/2	4	.250	45.00
10-3764	SDNCN 1010 H2	5/8	4	.313	49.95

Coolant-Thru Boring Bars 90° Boring & Facing / 95° Approach

Each holder includes high precision M2.5 x T-8 Torx Screw and Torx Key



Solid boring bars also from stock

Utilizes CCMT 21.51 Insert, not included, see page 2.

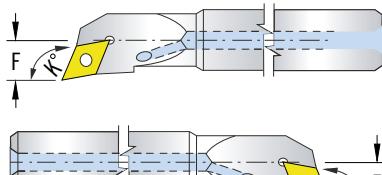
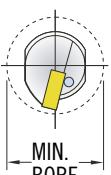
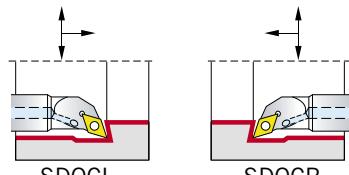
TOOL NUMBER	RIGHT HAND	LEFT HAND	TOOL HOLDER NOMENCLATURE	DIMENSIONS				PRICE EACH
				SHANK DIAMETER	OVERALL LENGTH	F OVER INSERT	MINIMUM BORE	
20-0821	20-0822	A04F SCLCR/L 2	1/4	3	.177	.330	.330	56.00
20-0823	20-0824	A05H SCLCR/L 2	5/16	4	.197	.380	.380	57.50
20-0825	20-0826	A06J SCLCR/L 2	3/8	4 1/2	.275	.490	.490	59.95
20-0827	20-0828	A08K SCLCR/L 2	1/2	5	.354	.630	.630	62.50
20-0829	20-0830	A10M SCLCR/L 2	5/8	6	.433	.775	.775	66.75

INDEXABLE INSERT HOLDERS

MIOO DEX™

Coolant-Thru Boring Bars Profile Boring & Facing

Each holder includes high precision
M2.5 x T-8 Torx Screw and Torx Key



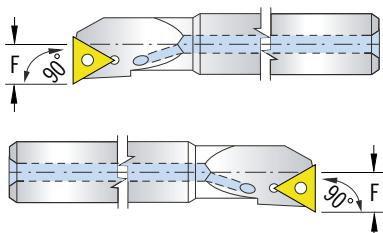
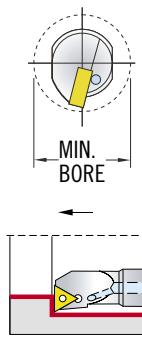
Solid boring bars also from stock

Utilizes DCMT 21.51 Insert, not included, see page 2.

TOOL NUMBER		TOOL HOLDER NOMENCLATURE	DIMENSIONS					PRICE EACH
RIGHT HAND	LEFT HAND		SHANK DIAMETER	OVERALL LENGTH	"F" OVER INSERT	MINIMUM BORE	ANGLE K°	
20-0901	20-0902	A05H SDQCR/L 2	.5/16	4	.197	.355	107.5°	56.25
20-0931	20-0932	A06J SDUCR/L 2	.3/8	4 1/2	.275	.490	93°	58.50
20-0933	20-0934	A08K SDUCL/L 2	.1/2	5	.354	.605	93°	61.95
20-0935	20-0936	A10M SDUCR/L 2	.5/8	6	.433	.775	93°	62.75

Coolant-Thru Boring Bars For Blind Bores Utilizing 90° Insert Face

Each holder includes high precision
M2.5 x T-8 Torx Screw and Torx Key



Solid boring bars also from stock

Utilizes TCMT 21.51 Insert, not included, see page 2.

TOOL NUMBER		TOOL HOLDER NOMENCLATURE	DIMENSIONS				PRICE EACH
RIGHT HAND	LEFT HAND		SHANK DIAMETER	OVERALL LENGTH	F OVER INSERT	MINIMUM BORE	
20-1031	20-1032	A06J STFCR/L 2	.3/8	4 1/2	.275	.490	58.50
20-1033	20-1034	A08K STFCR/L 2	.1/2	5	.354	.605	61.95
20-1035	20-1036	A10M STFCR/L 2	.5/8	6	.433	.775	62.75

MIOO DEX™

high performance

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INDEXABLE INSERT HOLDER SETS

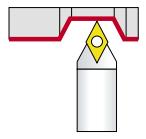
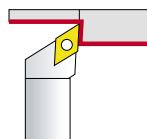
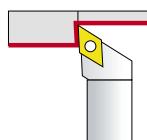
MIOO DEX™

3 & 4 Piece Coolant-Thru Boring Bar Sets Furnished in fitted wooden case



SET NUMBER	SHANK DIAMETERS	INDEXABLE INSERT HOLDERS	PRICE
40-0100	1/4, 5/16, 3/8, 1/2	Complete with carbide insert, Torx screw and Torx key Set of 4 pcs. SCLCR with CCMT 21.51 insert	220.00
40-2400	3/8, 1/2, 5/8	Set of 3 pcs. SDUCR with DCMT 21.51 insert	185.00
40-2100	3/8, 1/2, 5/8	Set of 3 pcs. STFCR with TCMT 21.51 insert	185.00

4 Piece Multi-Purpose Sets Furnished in fitted wooden case



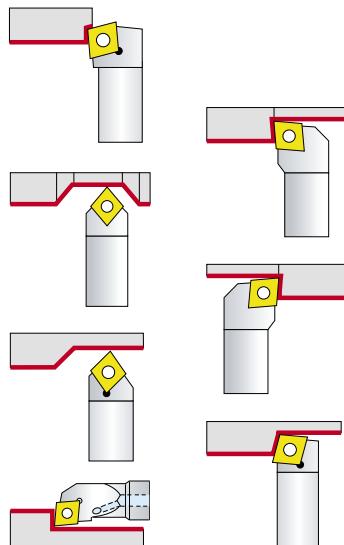
Utilizes DCMT 21.51 Insert

SET NUMBER	SHANK SIZES		INDEXABLE INSERT HOLDERS Complete with carbide insert, Torx screw and Torx key	PRICE
	SQUARE 3 PCS.	ROUND 1 PC.		
40-7200	5/16	5/16	Set of 4 pcs., 1 ea. SDJCR, SDJCL, SDNCN, SDQCR	162.50
40-7201	3/8	3/8	Set of 4 pcs., 1 ea. SDJCR, SDJCL, SDNCN, SDUCR	180.00
40-7202	1/2	1/2	Set of 4 pcs., 1 ea. SDJCR, SDJCL, SDNCN, SDUCR	199.00
40-7203	5/8	5/8	Set of 4 pcs., 1 ea. SDJCR, SDJCL, SDNCN, SDUCR	245.00

INDEXABLE INSERT HOLDER SETS

MIOO DEX™

7 Piece Multi-Purpose Sets Furnished in fitted wooden case



Utilizes CCMT 21.51 Insert

SET NUMBER	SHANK SIZES		INDEXABLE INSERT HOLDERS Complete with carbide insert, Torx screw and Torx key	PRICE
	SQUARE 6 PCS.	ROUND 1 PC.		
40-7101	1/4	1/4	Set of 7 pcs., 1 ea. SCLCR, SCLCL, SCBCR, SCKCR, SCMCN, SCSCR, SCLCR	199.00
40-7102	5/16	1/4	Set of 7 pcs., 1 ea. SCLCR, SCLCL, SCBCR, SCKCR, SCMCN, SCSCR, SCLCR	205.00
40-7103	3/8	5/16	Set of 7 pcs., 1 ea. SCLCR, SCLCL, SCBCR, SCKCR, SCMCN, SCSCR, SCLCR	215.00
40-7104	1/2	3/8	Set of 7 pcs., 1 ea. SCLCR, SCLCL, SCBCR, SCKCR, SCMCN, SCSCR, SCLCR	230.00
40-7105	5/8	1/2	Set of 7 pcs., 1 ea. SCLCR, SCLCL, SCBCR, SCKCR, SCMCN, SCSCR, SCLCR	310.00

Accessories



ORDER NUMBER	NOMENCLATURE	DESCRIPTION	PRICE
16-1020	M2.5 x T-8	Torx Screw	3.00
16-1060	TK-8	Torx Key M2.5	2.75

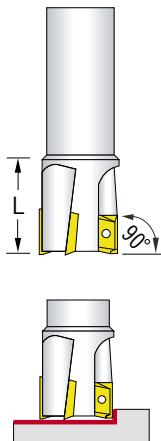
MIOO DEX™

optimized productivity

INDEXABLE INSERT HOLDERS

MIOO DEX™

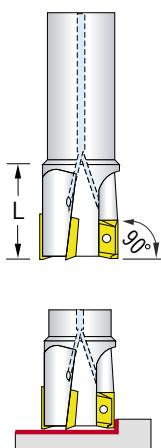
Milling



Utilizes APKT 1003 PDR Insert, not included, see page 2.

TOOL NUMBER	TOOL HOLDER NOMENCLATURE	DIMENSIONS					PRICE EACH
		CUTTER DIAMETER	SHANK DIAMETER	OVERALL LENGTH	CUTTER L	NUMBER OF FLUTE	
31-1216	BAAP 1216 2	3/8	1/2	3	1 1/2	1	85.00
31-1616	BAAP 1616 2	1/2	1/2	3	1 1/2	1	95.00
31-1816	BAAP 1816 2	5/8	1/2	3	1 1/2	2	105.00
31-2424	BAAP 2424 2	3/4	3/4	4 3/8	2	3	145.00
31-3224	BAAP 3224 2	1	3/4	4 3/8	2	4	155.00
31-4024	BAAP 4024 2	1 1/4	3/4	4 3/8	2	5	231.00

Coolant-Thru Milling



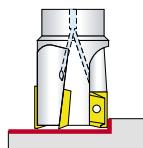
Utilizes APKT 1003 PDR Insert, not included, see page 2.

TOOL NUMBER	TOOL HOLDER NOMENCLATURE	DIMENSIONS					PRICE EACH
		CUTTER DIAMETER	SHANK DIAMETER	OVERALL LENGTH	CUTTER L	NUMBER OF FLUTE	
30-1216	AAAP 1216 2	3/8	1/2	3	1 1/2	1	105.00
30-1616	AAAP 1616 2	1/2	1/2	3	1 1/2	1	115.00
30-1816	AAAP 1816 2	5/8	1/2	3	1 1/2	2	125.50
30-2424	AAAP 2424 2	3/4	3/4	4 3/8	2	3	147.80
30-3224	AAAP 3224 2	1	3/4	4 3/8	2	4	237.00
30-4024	AAAP 4024 2	1 1/4	3/4	4 3/8	2	5	254.00

INDEXABLE INSERT HOLDER SETS

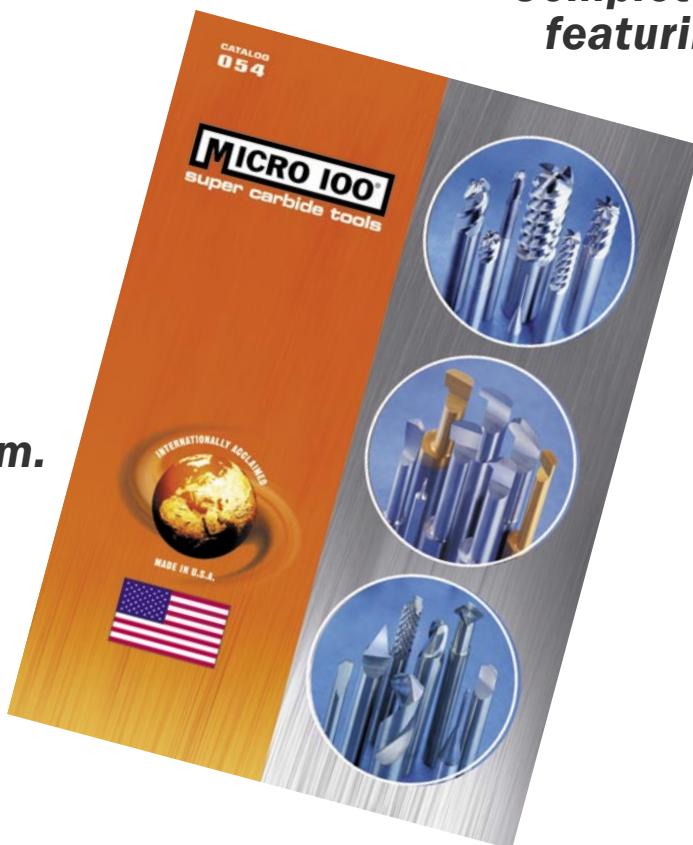
MIOO DEX™

3 Piece Coolant-Thru Milling Set Furnished in fitted wooden case



SET NUMBER	SHANK DIAMETER	CUTTER DIAMETER	NUMBER OF FLUTE	INDEXABLE INERT HOLDERS Complete with carbide insert, Torx screw and Torx key	PRICE
60-3003	1/2	3/8 1/2 5/8	1 1 2	Set of 3 pcs. AAAP with APK1 1003 PDR Insert	245.00

**Complete 180 page catalog
featuring brazed and solid
super carbide tools
free on request.**



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5,000 tools
to choose from.**

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indexable carbide tools



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Síguenos:



**Proprietary micrograin carbide with highest transverse rupture strength.
Unmatched in toughness and application versatility. Superior in material
removal and tool life. One (1) grade of carbide for machining all metals.**

Einzigartiges, Feinstkorn-Hartmetall mit höchster Biege- und Bruchfestigkeit. Unübertroffen in physikalischen Festigkeiten und Anwendungsbereichen. Höchste Zerspanungsleistung mit grösster Werkzeugstandzeit. Eine Hartmetallsorte für alle Metallbearbeitungen.

**Metal duro micrograno proprietario con la más alta fuerza de ruptura.
Inigualable en tenacidad y versatilidad de aplicación. Superior en extracción de material y duración. Una única calidad de metal duro para mecanizar todos los metales.**

Carbure micrograin unique de propre développement avec une résistance à la rupture maximale. Imbattable en tenacité et applications. Enlèvement de copeaux et longévité de l'outils supérieurs. Une seule sorte de carbure pour l'usinage de tous les métaux.

Proprietà registrata, metallo duro micrograna con la più alta tenacità presente sul mercato. Impareggiabile in durezza e versatilità nelle diverse applicazioni. Superiore nell'asportazione di materiale e vita dell'utensile. Un grado di metallo duro per lavorare tutti i materiali.

**拥有最高断裂强度的专利硬质合金. 无可匹敌的刚性和应用多功能.
高品质的切削性能和超长的刀具寿命. 一种材质的硬质合金可以加工所有的金属.**

**SYMBOLS
SYMBOLE
SÍMBOLOS
SYMBOLES
GLOSSARIO SIMBOLI**

标记符号 / 符號

Tool Specifications

Werkzeugspezifikationen

Especificaciones de herramienta

Spécifications de l'outil

Caratteristiche utensili

刀具规格, 尺寸 / 刀具規格

Tolerance D ₁ : h8 D ₂ : -0.0025 to -0.005	Tolerance D ₁ : h8 D ₂ : -0.0025 to -0.008	Tolerance D ₁ : h9 D ₂ : -0.0025 to -0.008	Tolerance D: -0.0025 to -0.008	Tolerance T.I.R. 0.05
Tolerance D ₁ : +0.0 -0.04 D ₂ : -0.0025 to -0.008	Tolerance D ₁ : +0.076 -0.0 D ₂ : -0.0025 to -0.008	Tolerance D ₁ : +0.08 -0.0 D ₂ : -0.0025 to -0.008	Tolerance D ₁ : +0.025 -0.0 D ₂ : -0.0025 to -0.008	
Tolerance D ₁ : 1 to 6 h8 D ₂ : -0.0025 to -0.008 8 to 12 h9	Tolerance D ₁ : 1 to 6 h8 D ₂ : -0.0025 to -0.008 8 to 20 h9	Tolerance D ₁ : 1.0 to 7.0 h8 D ₂ : -0.0025 to -0.008 8.0 to 25.0 h9		
Tolerance D ₁ : +0.0 -0.05 L ₁ : ±1 L ₂ : +0.635 -0.0	Tolerance D ₁ : +0.0 -0.125 L ₁ : ±1 L ₂ : +1.250 -0.0	Tolerance D ₁ : +0.025 -0.0 L ₁ : ±1 L ₂ : +0.750 -0.0		

Universal U-Star	Mold & Die M-Plus	HSC V-Max	Hard Milling H-Power	Aluminum Soft Plus	Plastic Soft Plus
---------------------	----------------------	--------------	-------------------------	-----------------------	----------------------

Helix 30°	Helix 38°	Helix 45°	Helix 60°
--------------	--------------	--------------	--------------

Flutes 1	Flutes 2	Flutes 3	Flutes 4	Flutes 5	Flutes 2 3	Flutes 2 4
Flutes 2 5	Flutes 3 4	Flutes 4 6	Flutes 2 3 4	Flutes 2 3 5	Flutes 2 4 6	

Center Cutting	Non-Center Cutting	Rake +	Rake -
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Coating AlTiN	Coating TiN	Coating Alu-Speed
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SYMBOLS SYMBOLE SÍMBOLOS SYMBOLES

GLOSSARIO SIMBOLI

标记符号 / 符號

Applications

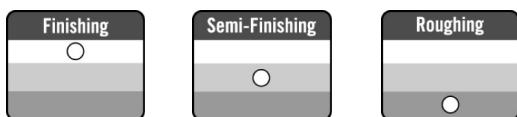
Anwendungen

Aplicaciones

Applications

Applicazioni

应用 / 應用



Cutting Shapes

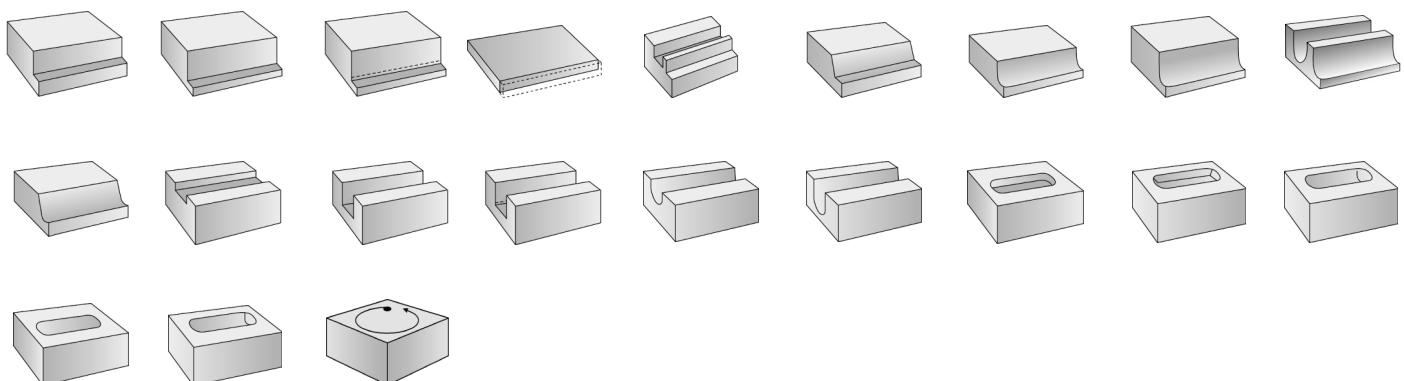
Bearbeitungsbeispiele

Formas de corte

Géométries de coupe

Forma di taglio

切刃形状 / 切削外型



INDEX

End Mills - Square End Style

Zylindrische Schaftfräser

Fresas - punta recta

Fraises - cylindriques

Frese cilindriche piatte

立铣刀-方肩系列 / 端铣刀 - 平刀型



PAGE

6-34

End Mills - Ball Nose Style

Radius Schaftfräser

Fresas - punta de bola

Fraises - à rayons

Frese semisferiche

立铣刀-球头系列 / 端铣刀 - 球刀型



35-45

Technical Application Data - End Mills

Technische Anwendungsdaten - Schaftfräser

Datos de aplicación técnica - Fresas

Données techniques d'utilisation - Fraises

Dati tecnici applicazioni - Frese

使用技术指南-立铣刀 / 技術應用手冊 - 端铣刀

MATERIAL	CUTTING SPEED F (mm/min)	RIDGE FORMING FEED FOR TURNING mm/min (Ploughing)	FEED FOR TOOTH mm/min (Slotting/Cutting)	CUTTING FEED (mm/min)
Aluminum	200 - 400	0.007 - 0.12	0.003 - 0.30	Cantilever
Aluminum Alloy under 4% Si	120 - 200	0.007 - 0.12	0.003 - 0.30	Cantilever
Aluminum Alloy over 4% Si	120 - 200	0.007 - 0.12	0.003 - 0.30	Bar
Cast Iron, Gray	200 - 400	0.005 - 0.10	0.003 - 0.36	Bar
Cast Iron, Medium	50 - 120	0.005 - 0.10	0.003 - 0.36	Bar
Cast Iron, Medium/Mechanical	50 - 120	0.005 - 0.10	0.003 - 0.36	Bar
Brass	120 - 200	0.005 - 0.10	0.003 - 0.36	Cantilever
Bronze	120 - 200	0.005 - 0.10	0.003 - 0.36	Cantilever
Copper/Copper Alloys	120 - 200	0.005 - 0.10	0.003 - 0.36	Cantilever
Magnesium	250 - 400	0.007 - 0.12	0.003 - 0.30	Cantilever
Steel, Medium	50 - 90	0.005 - 0.08	0.003 - 0.30	Cantilever
Steel, Medium Carbon	45 - 140	0.005 - 0.08	0.003 - 0.30	Cantilever
Steel, Medium Case Hardened	50 - 120	0.005 - 0.08	0.003 - 0.30	Cantilever
Steel, Medium Case Hardened	50 - 120	0.005 - 0.08	0.003 - 0.30	Bar
Steel, Medium Case Hardened (HRC 45)	45 - 90	0.005 - 0.08	0.003 - 0.30	Bar
Steel, High Tensile (HRC 50)	35 - 50	0.005 - 0.08	0.003 - 0.30	Bar
Steel Sheets	35 - 100	0.005 - 0.08	0.003 - 0.30	Cantilever
High Strength Thread Mills	20 - 30	0.005 - 0.10	0.003 - 0.30	Cantilever
Inverted TIR (Value 4) Standard & TSD	20 - 30	0.005 - 0.10	0.003 - 0.30	Cantilever
Titanium	80 - 120	0.003 - 0.05	0.003 - 0.30	Cantilever
Titanium, Hard	75 - 80	0.003 - 0.05	0.003 - 0.30	Cantilever

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Thread Mills

Gewindefräser

Fresas de roscar

Fraises à fileter

Frese a filettare

螺纹铣刀 / 螺紋銑刀



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Technical Application Data - Thread Mills

Technische Anwendungsdaten - Gewindefräser

Datos de aplicación técnica - Fresas de roscar

Données techniques d'utilisation - Fraises à fileter

Dati tecnici applicanioni - Frese a filettare

使用技术指南-螺纹铣刀 / 技術應用手冊 - 螺紋銑刀

MATERIAL	CUTTING SPEED F (mm/min)	RIDGE FORMING FEED FOR TURNING mm/min (Ploughing)	FEED FOR TOOTH mm/min (Slotting/Cutting)	CUTTING FEED (mm/min)
Aluminum Alloy under 4% Si	200 - 400	0.01 - 0.05	0.005 - 0.30	0.003 - 0.30
Aluminum Alloy over 4% Si	120 - 200	0.01 - 0.05	0.005 - 0.30	0.003 - 0.30
Cast Iron, Gray	200 - 400	0.005 - 0.08	0.003 - 0.30	0.003 - 0.30
Cast Iron, Medium	50 - 120	0.005 - 0.08	0.003 - 0.30	0.003 - 0.30
Cast Iron, Medium/Mechanical	50 - 120	0.005 - 0.08	0.003 - 0.30	0.003 - 0.30
Brass	120 - 200	0.005 - 0.08	0.003 - 0.30	0.003 - 0.30
Bronze	120 - 200	0.005 - 0.08	0.003 - 0.30	0.003 - 0.30
Copper/Copper Alloys	120 - 200	0.005 - 0.08	0.003 - 0.30	0.003 - 0.30
Magnesium	250 - 400	0.007 - 0.12	0.003 - 0.30	0.003 - 0.30
Steel, Medium	50 - 90	0.005 - 0.08	0.003 - 0.30	0.003 - 0.30
Steel, Medium Case Hardened (HRC 45)	45 - 90	0.005 - 0.08	0.003 - 0.30	0.003 - 0.30
Steel, High Tensile (HRC 50)	35 - 50	0.005 - 0.08	0.003 - 0.30	0.003 - 0.30
Steel Sheets	35 - 100	0.005 - 0.08	0.003 - 0.30	0.003 - 0.30
High Strength Thread Mills	20 - 30	0.005 - 0.10	0.003 - 0.30	0.003 - 0.30
Inverted TIR (Value 4) Standard & TSD	20 - 30	0.005 - 0.10	0.003 - 0.30	0.003 - 0.30
Titanium	80 - 120	0.003 - 0.05	0.003 - 0.30	0.003 - 0.30
Titanium, Hard	75 - 80	0.003 - 0.05	0.003 - 0.30	0.003 - 0.30

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Boring Tools, Threading Tools, Groove Tools

Dreh- und Aufbohrwerkzeuge

Herramientas para tornear interiores

Outils d'alésage et de perçage

Utensili per alesare

镗孔刀具 / 捻刀



PAGE

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Technical Application Data - Boring Tools

Technische Anwendungsdaten - Dreh und Aufbohrwerkzeuge

Datos de aplicación técnica - Barras para tornear interiores

Données techniques d'utilisation - Outils de tournage et de perçage

Dati tecnici applicazioni - Utensili per alesare

使用技术指南-镗刀 / 技術應用手冊 - 捻刀

MATERIAL	CUTTING SPEED Metres per minute	CUTTING SPEED Feet per minute	FEED RATE mm/min. inches/min.	FEED RATE inch/min. mm/min.
Aluminum 6061	125	2000	0.025 - 0.125	0.001 - 0.005
Aluminum 7075	125	2000	0.025 - 0.125	0.001 - 0.005
Cast Iron, Mild	140 - 180	230 - 300	0.025 - 0.125	0.001 - 0.005
Cast Iron, Medium	95 - 120	150 - 200	0.025 - 0.125	0.001 - 0.005
Steel	110 - 140	180 - 250	0.025 - 0.125	0.001 - 0.005
Bronze	230 - 280	370 - 400	0.025 - 0.125	0.001 - 0.005
Brass	230 - 280	370 - 400	0.025 - 0.125	0.001 - 0.005
Copper	210 - 240	340 - 380	0.025 - 0.125	0.001 - 0.005
Magnesium	65	2000	0.025 - 0.125	0.001 - 0.005
nickel Alloys, Nickel 200	30	500	0.025 - 0.125	0.001 - 0.005
Metal	60 - 80	100	0.025 - 0.125	0.001 - 0.005
Stainless Steel 304/316	60	100	0.025 - 0.125	0.001 - 0.005
Stainless Steel 13-18 PW	80	130	0.025 - 0.125	0.001 - 0.005
Stainless Steel 13-18 PW	80	130	0.025 - 0.125	0.001 - 0.005
Steel, Low Carbon	110 - 120	180 - 200	0.025 - 0.125	0.001 - 0.005
Steel, Medium Carbon	110 - 120	180 - 200	0.025 - 0.125	0.001 - 0.005
Steel, High Strength (25-40 Rc)	80 - 95	130 - 200	0.025 - 0.125	0.001 - 0.005
Steel, High Strength (25-40 Rc)	80	130	0.025 - 0.125	0.001 - 0.005
Tool Steel P-20	50 - 65	100 - 200	0.025 - 0.125	0.001 - 0.005
High Temperature Alloys	110 - 140	180 - 200	0.025 - 0.125	0.001 - 0.005
Titanium	60 - 80	100 - 120	0.025 - 0.125	0.001 - 0.005
Molybdenum	60 - 80	100 - 120	0.025 - 0.125	0.001 - 0.005
Iron	25	75	0.025 - 0.125	0.001 - 0.005
Steel 41	25	75	0.025 - 0.125	0.001 - 0.005
Monel	25	75	0.025 - 0.125	0.001 - 0.005

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Tool Holders, Combined Drills & Countersinks

Werkzeughalter, Zentrierbohrer



Portaherramientas, Broca combinada y broca de centro

Porte - outils, Mèches à centrer

Porta utensile, Punte da centro

刀套, 刀具夾持桿 / 中心钻, 沉頭鑽頭

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Engraving Tools, Radius Tools, Blanks

Gravierwerkzeuge, Radiuswerkzeuge, Rohlinge



Herramientas para el grabado, Herramientas de radios, Barras



Outils à graver, Outils à rayon, Ebauches



Utensili per incisioni, Bulini, Cilindretti

雕刻刀具, 圆弧刀, 棒料 / 雕刻刀, 雕刻圆棒, 圆棒

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Coatings, Tolerances

Beschichtungen, Toleranzen

Recubrimientos, Tolerancias

Revêtements, Tolérances

Rivestimenti, Tolleranze

涂层 / 鎔層 / 公差 / 公差

ALIN	COATING	CONTACT	ABSOLUTE	AMBIENT	OPERATING
All	S	S	2000	up to 700	up to 700
Al-S	S	stack	+0.000 -0.010	up to 800	
Al-M	S	L	+0.020 -0.010	up to 800	
Brass	S	L	+0.020 -0.010	up to 800	
Steel	S	L	+0.020 -0.010	up to 800	
SCM	T	stack	+0.000 -0.010	up to 800	
SiC	G	stack	+0.000 -0.010	up to 800	

ALIN	COATING	CONTACT	ABSOLUTE	AMBIENT	OPERATING
1 - 2 mm			+1.000 -0.050 mm	+1.000 -0.100 mm	+1.000 -0.100 mm
3 - 4 mm			+1.000 -0.050 mm	+1.000 -0.100 mm	+1.000 -0.100 mm
> 4 - 10 mm			+1.000 -0.050 mm	+1.000 -0.100 mm	+1.000 -0.100 mm
> 10 - 20 mm			+1.000 -0.050 mm	+1.000 -0.100 mm	+1.000 -0.100 mm
> 20 mm			+1.000 -0.050 mm	+1.000 -0.100 mm	+1.000 -0.100 mm

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“R” Series - Miniature End Mills

“R” Serie - Miniatur Schaftfräser

Serie “R” - Fresas miniatura

Série “R” - Fraises miniatures

Serie “R” - Microfresa

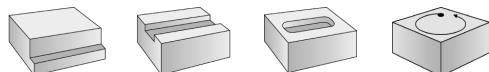
“R” 系列微型立铣刀 / “R” 系列 – 微小端铣刀

MICRO 100®

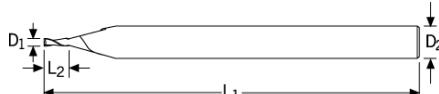
Universal
U-Star **Helix**
30° **Flutes**
2 **Center**
Cutting **Rake**
+ **Coating**
AlTiN

Material
Soft **Material**
Medium **Material**
Hard

Finishing
○
Semi-Finishing
○



Tolerance
D₁: h8 | D₂: -0.0025 to -0.008



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
RMEM-002-2	RMEM-002-2X	0.2	3	38	0.4
RMEM-003-2	RMEM-003-2X	0.3	3	38	0.9
RMEM-004-2	RMEM-004-2X	0.4	3	38	1.2
RMEM-005-2	RMEM-005-2X	0.5	3	38	1.5
RMEM-006-2	RMEM-006-2X	0.6	3	38	1.8
RMEM-007-2	RMEM-007-2X	0.7	3	38	2.1
RMEM-008-2	RMEM-008-2X	0.8	3	38	2.4
RMEM-009-2	RMEM-009-2X	0.9	3	38	2.7
RMEM-010-2	RMEM-010-2X	1.0	3	38	3.0
RMEM-011-2	RMEM-011-2X	1.1	3	38	3.3
RMEM-012-2	RMEM-012-2X	1.2	3	38	3.8
RMEM-013-2	RMEM-013-2X	1.3	3	38	3.9
RMEM-014-2	RMEM-014-2X	1.4	3	38	4.2
RMEM-015-2	RMEM-015-2X	1.5	3	38	4.2
RMEM-016-2	RMEM-016-2X	1.6	3	38	4.8
RMEM-017-2	RMEM-017-2X	1.7	3	38	5.1
RMEM-018-2	RMEM-018-2X	1.8	3	38	5.3
RMEM-019-2	RMEM-019-2X	1.9	3	38	5.7
RMEM-020-2	RMEM-020-2X	2.0	3	38	6.0
RMEM-025-2	RMEM-025-2X	2.5	3	38	8.0

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

“A” Series - Miniature End Mills

“A” Serie - Miniatur Schaftfräser

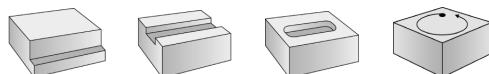
Serie “A” - Fresas miniatura

Série “A” - Fraises miniatures

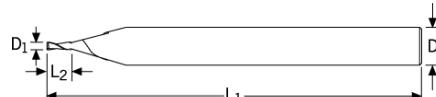
Serie “A” - Microfresa

“A” 系列微型立铣刀 / “A” 系列 – 微小端铣刀

MICRO 100®



Tolerance
D₁: h8 | D₂: -0.0025 to -0.008



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
AMRM-002-2	AMRM-002-2X	0.2	4	50	0.4
AMRM-003-2	AMRM-003-2X	0.3	4	50	0.9
AMRM-004-2	AMRM-004-2X	0.4	4	50	1.2
AMRM-005-2	AMRM-005-2X	0.5	4	50	1.5
AMRM-006-2	AMRM-006-2X	0.6	4	50	1.8
AMRM-007-2	AMRM-007-2X	0.7	4	50	2.1
AMRM-008-2	AMRM-008-2X	0.8	4	50	2.4
AMRM-009-2	AMRM-009-2X	0.9	4	50	2.7
AMRM-010-2	AMRM-010-2X	1.0	4	50	3.0
AMRM-011-2	AMRM-011-2X	1.1	4	50	3.3
AMRM-012-2	AMRM-012-2X	1.2	4	50	3.8
AMRM-013-2	AMRM-013-2X	1.3	4	50	3.9
AMRM-014-2	AMRM-014-2X	1.4	4	50	4.2
AMRM-015-2	AMRM-015-2X	1.5	4	50	4.2
AMRM-016-2	AMRM-016-2X	1.6	4	50	4.8
AMRM-017-2	AMRM-017-2X	1.7	4	50	5.1
AMRM-018-2	AMRM-018-2X	1.8	4	50	5.3
AMRM-019-2	AMRM-019-2X	1.9	4	50	5.7
AMRM-020-2	AMRM-020-2X	2.0	4	50	6.0
AMRM-025-2	AMRM-025-2X	2.5	4	50	8.0
AMRM-030-2	AMRM-030-2X	3.0	4	50	9.0
AMRM-035-2	AMRM-035-2X	3.5	4	50	10.5

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ABREMAC
PODER PARA TRANSFORMAR

Mold Making End Mills

Schaftfräser für den Werkzeug- und Formenbau

Fresas para moldistas

Fraises pour la fabrication d'étampes et de moules

Frese per stampisti

模具立铣刀 / 模具用端铣刀

MICRO 100®

Mold & Die
M-Plus

Helix
30°

Flutes
2

Center Cutting

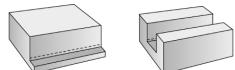
Rake
+

Coating
AlTiN

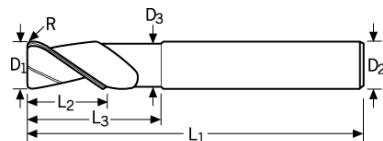
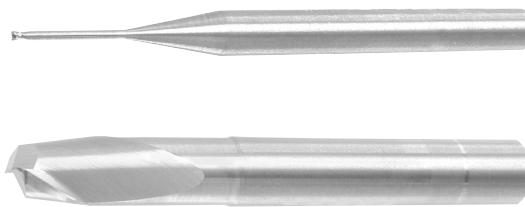
Material
Medium

Material
Hard

Finishing



Tolerance
D₁: h8 | D₂: -0.0025 to -0.008



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	D ₃	L ₁	L ₂	L ₃	R
MMRM-005-5	MMRM-005-5X	0.5	4	0.48	50	0.5	5	0.05
MMRM-005-10	MMRM-005-10X	0.5	4	0.48	50	0.5	10	0.05
MMRM-006-5	MMRM-006-5X	0.6	4	0.58	50	0.6	5	0.05
MMRM-006-12	MMRM-006-12X	0.6	4	0.58	50	0.6	12	0.05
MMRM-008-5	MMRM-008-5X	0.8	4	0.78	50	0.8	5	0.10
MMRM-008-10	MMRM-008-10X	0.8	4	0.78	50	0.8	10	0.10
MMRM-008-16	MMRM-008-16X	0.8	4	0.78	50	0.8	16	0.10
MMRM-010-5	MMRM-010-5X	1.0	6	0.95	57	1.0	5	0.10
MMRM-010-10	MMRM-010-10X	1.0	6	0.95	57	1.0	10	0.10
MMRM-010-20	MMRM-010-20X	1.0	6	0.95	57	1.0	20	0.10
MMRM-012-7	MMRM-012-7X	1.2	6	1.15	57	1.2	7	0.10
MMRM-012-15	MMRM-012-15X	1.2	6	1.15	57	1.2	15	0.10
MMRM-012-20	MMRM-012-20X	1.2	6	1.15	57	1.2	20	0.10
MMRM-015-7	MMRM-015-7X	1.5	6	1.45	57	1.5	7	0.15
MMRM-015-15	MMRM-015-15X	1.5	6	1.45	57	1.5	15	0.15
MMRM-015-25	MMRM-015-25X	1.5	6	1.45	57	1.5	25	0.15

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ABREMAC
PODER PARA TRANSFORMAR

Mold Making End Mills

Schaftfräser für den Werkzeug- und Formenbau

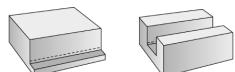
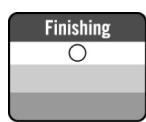
Fresas para moldistas

Fraises pour la fabrication d'étampes et de moules

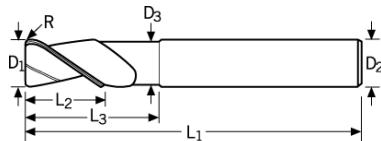
Frese per stampisti

模具立铣刀 / 模具用端铣刀

MICRO 100®



Tolerance
D₁: h8 | D₂: -0.0025 to -0.008



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	D ₃	L ₁	L ₂	L ₃	R
MMRM-020-7	MMRM-020-7X	2.0	6	1.90	57	2.0	7	0.20
MMRM-020-15	MMRM-020-15X	2.0	6	1.90	57	2.0	15	0.20
MMRM-020-30	MMRM-020-30X	2.0	6	1.90	57	2.0	30	0.20
MMRM-030-8	MMRM-030-8X	3.0	6	2.90	57	3.0	8	0.25
MMRM-030-15	MMRM-030-15X	3.0	6	2.90	57	3.0	15	0.25
MMRM-030-30	MMRM-030-30X	3.0	6	2.90	57	3.0	30	0.25
MMRM-040-9	MMRM-040-9X	4.0	6	3.80	57	4.0	9	0.25
MMRM-040-15	MMRM-040-15X	4.0	6	3.80	57	4.0	15	0.25
MMRM-040-30	MMRM-040-30X	4.0	6	3.80	57	4.0	30	0.25
MMRM-050-10	MMRM-050-10X	5.0	6	4.80	57	5.0	10	0.50
MMRM-050-15	MMRM-050-15X	5.0	6	4.80	57	5.0	15	0.50
MMRM-050-30	MMRM-050-30X	5.0	6	4.80	57	5.0	30	0.50
MMRM-060-11	MMRM-060-11X	6.0	6	5.80	57	6.0	11	1.00
MMRM-060-16	MMRM-060-16X	6.0	6	5.80	57	6.0	16	1.00
MMRM-060-30	MMRM-060-30X	6.0	6	5.80	57	6.0	30	1.00
MMRM-080-16	MMRM-080-16X	8.0	8	7.80	63	8.0	16	1.00
MMRM-080-25	MMRM-080-25X	8.0	8	7.80	63	8.0	25	1.00
MMRM-100-20	MMRM-100-20X	10.0	10	9.80	72	10.0	20	1.00
MMRM-100-25	MMRM-100-25X	10.0	10	9.80	72	10.0	25	1.00
MMRM-120-25	MMRM-120-25X	12.0	12	11.80	83	12.0	25	1.50

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

HSC Shrink Fit End Mills

HSC Schaftfräser zum Einschrumpfen

Fresas HSC de ajuste por reducción

Fraises HSC pour serrage par frettage

HSC Frese per calettamento a caldo

“HSC” 高速加工的热缩柄立铣刀 / “HSC” 高速加工熱縮用端銑刀

MICRO 100®

HSC V-Max	Helix 30°	Flutes 2	Center Cutting	Rake +	Coating AlTiN
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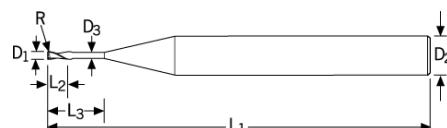
Material Soft	Material Medium	Material Hard
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Finishing	<input type="radio"/>
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Tolerance

D₁: h8 | D₂: -0.0025 to -0.005



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	D ₃	L ₁	L ₂	L ₃	R
SFRM-002-0	SFRM-002-OX	0.2	6		57	0.3		
SFRM-003-0	SFRM-003-OX	0.3	6		57	0.4		
SFRM-003-1	SFRM-003-1X	0.3	6	0.25	57	0.4	1.0	
SFRM-004-0	SFRM-004-OX	0.4	6		57	0.5		
SFRM-004-1	SFRM-004-1X	0.4	6	0.35	57	0.5	1.2	
SFRM-005-1	SFRM-005-1X	0.5	6	0.45	57	0.6	1.6	0.1
SFRM-005-3	SFRM-005-3X	0.5	6	0.45	57	0.5	3.3	0.1
SFRM-005-5	SFRM-005-5X	0.5	6	0.45	57	0.5	5.1	0.1
SFRM-006-2	SFRM-006-2X	0.6	6	0.55	57	0.7	1.7	0.1
SFRM-006-4	SFRM-006-4X	0.6	6	0.55	57	0.6	4.5	0.1
SFRM-006-6	SFRM-006-6X	0.6	6	0.55	57	0.6	6.2	0.1
SFRM-008-2	SFRM-008-2X	0.8	6	0.75	57	1.0	2.5	0.1
SFRM-008-5	SFRM-008-5X	0.8	6	0.75	57	0.8	5.2	0.1
SFRM-008-8	SFRM-008-8X	0.8	6	0.75	57	0.8	8.0	0.1
SFRM-010-3	SFRM-010-3X	1.0	6	0.95	57	1.3	3.3	0.1
SFRM-010-8	SFRM-010-8X	1.0	6	0.95	57	1.3	8.0	0.1

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

HSC Shrink Fit End Mills

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Fresas HSC de ajuste por reducción

Fraises HSC pour serrage par frettage

HSC Frese per calettamento a caldo

“HSC” 高速加工的热缩柄立铣刀 / “HSC” 高速加工熱縮用端銑刀

MICRO 100®

HSC
V-Max

Helix
30°

Flutes
2

Center
Cutting

Rake
+

Coating
AlTiN

Material
Soft

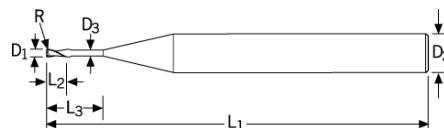
Material
Medium

Material
Hard

Finishing



Tolerance
D₁: h8 | D₂: -0.0025 to -0.005



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	D ₃	L ₁	L ₂	L ₃	R
SFRM-012-3	SFRM-012-3X	1.2	6	1.15	57	1.5	3.5	0.1
SFRM-012-8	SFRM-012-8X	1.2	6	1.15	57	1.2	8.0	0.1
SFRM-014-3	SFRM-014-3X	1.4	6	1.35	57	1.8	3.8	0.1
SFRM-014-15	SFRM-014-15X	1.4	6	1.35	57	2.3	15.0	0.1
SFRM-015-4	SFRM-015-4X	1.5	6	1.45	57	1.9	4.9	0.1
SFRM-015-9	SFRM-015-9X	1.5	6	1.45	57	1.5	9.5	0.1
SFRM-016-5	SFRM-016-5X	1.6	6	1.55	57	2.0	5.0	0.1
SFRM-016-22	SFRM-016-22X	1.6	6	1.55	57	2.3	22.0	0.1
SFRM-018-5	SFRM-018-5X	1.8	6	1.75	57	2.3	5.3	0.1
SFRM-020-5	SFRM-020-5X	2.0	6	1.95	57	2.5	5.5	0.2
SFRM-020-9	SFRM-020-9X	2.0	6	1.95	57	2.5	9.5	0.2
SFRM-025-6	SFRM-025-6X	2.5	6	2.40	57	3.0	6.0	0.2
SFRM-025-9	SFRM-025-9X	2.5	6	2.40	57	2.5	9.5	0.2
SFRM-030-8	SFRM-030-8X	3.0	6	2.90	57	4.0	8.0	0.2
SFRM-030-15	SFRM-030-15X	3.0	6	2.90	57	4.0	15.0	0.2
SFRM-035-9	SFRM-035-9X	3.5	6	3.40	57	4.5	9.5	0.2
SFRM-040-10	SFRM-040-10X	4.0	6	3.90	57	5.0	10.0	0.2
SFRM-040-20	SFRM-040-20X	4.0	6	3.90	57	5.0	20.0	0.2
SFRM-050-11	SFRM-050-11X	5.0	6	4.90	57	6.0	11.0	0.2
SFRM-050-25	SFRM-050-25X	5.0	6	4.90	57	6.0	25.0	0.2
SFRM-060-12	SFRM-060-12X	6.0	6	5.90	57	7.5	12.5	0.2
SFRM-060-25	SFRM-060-25X	6.0	6	5.90	57	7.5	25.0	0.2

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

“G” Series - Universal Application End Mills

“G” Serie - Universal Schaftfräser

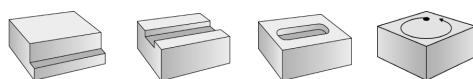
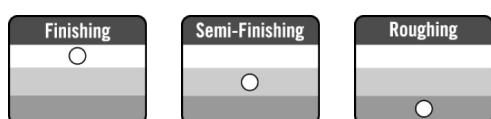
Serie “G” - Fresas de aplicación general

Série “G” - Fraises universelles

Serie “G” - Frese per applicazioni universali

“G” 系列 - 通用型立铣刀 / “G” 系列 - 一般應用端銑刀

MICRO 100®



Tolerance		
D ₁ : 1 to 6 8 to 20	h8	D ₂ : -0.0025 to -0.008 h9



STANDARD 2-FLUTE TOOL NUMBER	STANDARD 3-FLUTE TOOL NUMBER	STANDARD 4-FLUTE TOOL NUMBER	COATED 2-FLUTE TOOL NUMBER	COATED 3-FLUTE TOOL NUMBER	COATED 4-FLUTE TOOL NUMBER	L ₂
D ₁	D ₂	L ₁	2, 3 FLUTE	4 FLUTE		
GEMM-010-2	GEMM-010-3	GEMM-010-4	GEMM-010-2X	GEMM-010-3X	GEMM-010-4X	1 3 38 3 3
GEMM-020-2	GEMM-020-3	GEMM-020-4	GEMM-020-2X	GEMM-020-3X	GEMM-020-4X	2 3 38 6 7
GEMM-030-2	GEMM-030-3	GEMM-030-4	GEMM-030-2X	GEMM-030-3X	GEMM-030-4X	3 3 38 7 8
GEMM-040-2	GEMM-040-3	GEMM-040-4	GEMM-040-2X	GEMM-040-3X	GEMM-040-4X	4 4 50 8 11
GEMM-050-2	GEMM-050-3	GEMM-050-4	GEMM-050-2X	GEMM-050-3X	GEMM-050-4X	5 5 50 10 13
GEMM-060-2	GEMM-060-3	GEMM-060-4	GEMM-060-2X	GEMM-060-3X	GEMM-060-4X	6 6 57 10 13
GEMM-080-2	GEMM-080-3	GEMM-080-4	GEMM-080-2X	GEMM-080-3X	GEMM-080-4X	8 8 63 16 19
GEMM-100-2	GEMM-100-3	GEMM-100-4	GEMM-100-2X	GEMM-100-3X	GEMM-100-4X	10 10 72 19 22
GEMM-120-2	GEMM-120-3	GEMM-120-4	GEMM-120-2X	GEMM-120-3X	GEMM-120-4X	12 12 83 22 26
GEMM-140-2	GEMM-140-3	GEMM-140-4	GEMM-140-2X	GEMM-140-3X	GEMM-140-4X	14 14 83 22 26
GEMM-160-2	GEMM-160-3	GEMM-160-4	GEMM-160-2X	GEMM-160-3X	GEMM-160-4X	16 16 92 26 32
GEMM-180-2	GEMM-180-3	GEMM-180-4	GEMM-180-2X	GEMM-180-3X	GEMM-180-4X	18 18 92 26 32
GEMM-200-2	GEMM-200-3	GEMM-200-4	GEMM-200-2X	GEMM-200-3X	GEMM-200-4X	20 20 104 32 38

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

“A” Series - Universal Application End Mills

“A” Serie - Universal Schaftfräser

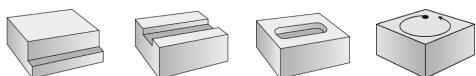
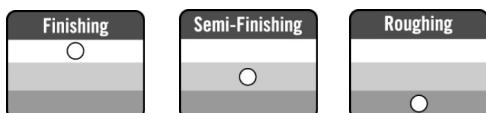
Serie “A” - Fresas de aplicación general

Serie “A” - Fraises universelles

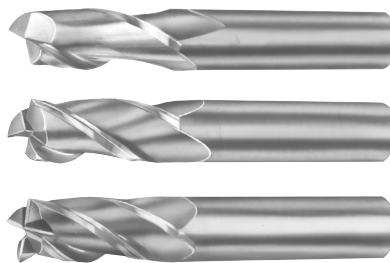
Serie “A” - Frese per applicazioni universali

“A” 系列 - 通用型立铣刀 / “A” 系列 - 一般應用端銑刀

MICRO 100®



Tolerance
D₁: 1.0 to 7.0 h8 | D₂: -0.0025 to -0.008
8.0 to 25.0 h9



STANDARD 2-FLUTE TOOL NUMBER	STANDARD 3-FLUTE TOOL NUMBER	STANDARD 4-FLUTE TOOL NUMBER	COATED 2-FLUTE TOOL NUMBER	COATED 3-FLUTE TOOL NUMBER	COATED 4-FLUTE TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
AEMM-010-2	AEMM-010-3	AEMM-010-4	AEMM-010-2X	AEMM-010-3X	AEMM-010-4X	1.0	4	50	4
AEMM-015-2	AEMM-015-3	AEMM-015-4	AEMM-015-2X	AEMM-015-3X	AEMM-015-4X	1.5	4	50	4
AEMM-020-2	AEMM-020-3	AEMM-020-4	AEMM-020-2X	AEMM-020-3X	AEMM-020-4X	2.0	4	50	5
AEMM-025-2	AEMM-025-3	AEMM-025-4	AEMM-025-2X	AEMM-025-3X	AEMM-025-4X	2.5	4	50	6
AEMM-030-2	AEMM-030-3	AEMM-030-4	AEMM-030-2X	AEMM-030-3X	AEMM-030-4X	3.0	6	57	8
AEMM-035-2	AEMM-035-3	AEMM-035-4	AEMM-035-2X	AEMM-035-3X	AEMM-035-4X	3.5	6	57	10
AEMM-040-2	AEMM-040-3	AEMM-040-4	AEMM-040-2X	AEMM-040-3X	AEMM-040-4X	4.0	6	57	11
AEMM-045-2	AEMM-045-3	AEMM-045-4	AEMM-045-2X	AEMM-045-3X	AEMM-045-4X	4.5	6	57	11
AEMM-050-2	AEMM-050-3	AEMM-050-4	AEMM-050-2X	AEMM-050-3X	AEMM-050-4X	5.0	6	57	16
AEMM-055-2	AEMM-055-3	AEMM-055-4	AEMM-055-2X	AEMM-055-3X	AEMM-055-4X	5.5	6	57	16
AEMM-060-2	AEMM-060-3	AEMM-060-4	AEMM-060-2X	AEMM-060-3X	AEMM-060-4X	6.0	6	57	16
AEMM-070-2	AEMM-070-3	AEMM-070-4	AEMM-070-2X	AEMM-070-3X	AEMM-070-4X	7.0	8	63	22
AEMM-080-2	AEMM-080-3	AEMM-080-4	AEMM-080-2X	AEMM-080-3X	AEMM-080-4X	8.0	8	63	22
AEMM-090-2	AEMM-090-3	AEMM-090-4	AEMM-090-2X	AEMM-090-3X	AEMM-090-4X	9.0	10	72	25
AEMM-100-2	AEMM-100-3	AEMM-100-4	AEMM-100-2X	AEMM-100-3X	AEMM-100-4X	10.0	10	72	25
AEMM-110-2	AEMM-110-3	AEMM-110-4	AEMM-110-2X	AEMM-110-3X	AEMM-110-4X	11.0	12	83	30
AEMM-120-2	AEMM-120-3	AEMM-120-4	AEMM-120-2X	AEMM-120-3X	AEMM-120-4X	12.0	12	83	30
AEMM-140-2	AEMM-140-3	AEMM-140-4	AEMM-140-2X	AEMM-140-3X	AEMM-140-4X	14.0	14	83	35
AEMM-160-2	AEMM-160-3	AEMM-160-4	AEMM-160-2X	AEMM-160-3X	AEMM-160-4X	16.0	16	92	35
AEMM-180-2	AEMM-180-3	AEMM-180-4	AEMM-180-2X	AEMM-180-3X	AEMM-180-4X	18.0	18	92	45
AEMM-200-2	AEMM-200-3	AEMM-200-4	AEMM-200-2X	AEMM-200-3X	AEMM-200-4X	20.0	20	104	45
AEMM-250-2	AEMM-250-3	AEMM-250-4	AEMM-250-2X	AEMM-250-3X	AEMM-250-4X	25.0	25	127	50

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

“A” Series - Universal Application End Mills with Corner Radius

“A” Serie - Universal Schaftfräser mit Eckenradius

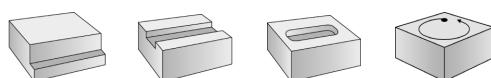
“A” Serie - Fresas de aplicación general con radio en la punta

Série “A” - Fraises universelles avec rayons

Serie “A” - Frese toriche per applicazioni universali

“A” 系列 - 通用型立铣刀, 带有刀尖圆弧半径 / “A” 系列 - 一般應用圓鼻刀

MICRO 100®



Tolerance				
D ₁ : 1 to 6 8 to 12	h8 h9	D ₂ : -0.0025 to -0.008		



2-FLUTE TOOL NUMBER	3-FLUTE TOOL NUMBER	4-FLUTE TOOL NUMBER	D ₁	D ₂	L ₁	L ₂	R
AECM-0101-2X	AECM-0101-3X	AECM-0101-4X	1	4	50	4	0.1
AECM-0102-2X	AECM-0102-3X	AECM-0102-4X	1	4	50	4	0.2
AECM-0202-2X	AECM-0202-3X	AECM-0202-4X	2	4	50	5	0.2
AECM-0205-2X	AECM-0205-3X	AECM-0205-4X	2	4	50	5	0.5
AECM-0302-2X	AECM-0302-3X	AECM-0302-4X	3	6	57	8	0.2
AECM-0305-2X	AECM-0305-3X	AECM-0305-4X	3	6	57	8	0.5
AECM-0402-2X	AECM-0402-3X	AECM-0402-4X	4	6	57	11	0.2
AECM-0405-2X	AECM-0405-3X	AECM-0405-4X	4	6	57	11	0.5
AECM-0410-2X	AECM-0410-3X	AECM-0410-4X	4	6	57	11	1.0
AECM-0502-2X	AECM-0502-3X	AECM-0502-4X	5	6	57	16	0.2
AECM-0505-2X	AECM-0505-3X	AECM-0505-4X	5	6	57	16	0.5
AECM-0510-2X	AECM-0510-3X	AECM-0510-4X	5	6	57	16	1.0
AECM-0603-2X	AECM-0603-3X	AECM-0603-4X	6	6	57	16	0.3
AECM-0605-2X	AECM-0605-3X	AECM-0605-4X	6	6	57	16	0.5
AECM-0610-2X	AECM-0610-3X	AECM-0610-4X	6	6	57	16	1.0
AECM-0805-2X	AECM-0805-3X	AECM-0805-4X	8	8	63	22	0.5
AECM-0810-2X	AECM-0810-3X	AECM-0810-4X	8	8	63	22	1.0
AECM-0815-2X	AECM-0815-3X	AECM-0815-4X	8	8	63	22	1.5
AECM-1005-2X	AECM-1005-3X	AECM-1005-4X	10	10	72	25	0.5
AECM-1010-2X	AECM-1010-3X	AECM-1010-4X	10	10	72	25	1.0
AECM-1015-2X	AECM-1015-3X	AECM-1015-4X	10	10	72	25	1.5
AECM-1205-2X	AECM-1205-3X	AECM-1205-4X	12	12	83	30	0.5
AECM-1210-2X	AECM-1210-3X	AECM-1210-4X	12	12	83	30	1.0
AECM-1215-2X	AECM-1215-3X	AECM-1215-4X	12	12	83	30	1.5

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

“NC” Series - Universal Application End Mills

“NC” Serie - Universal Schaftfräser

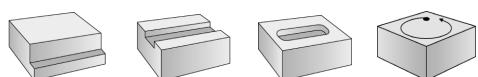
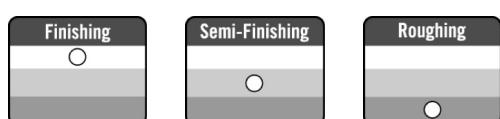
Serie “NC” - Fresas de aplicación aeneral

Série “NC” - Fraises universelles

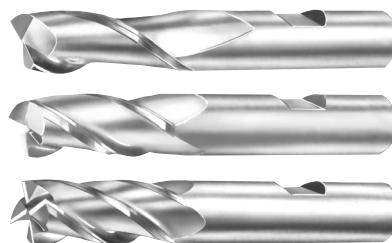
Serie “NC” - Frese per applicazioni universali

“NC” 系列 - 通用型立铣刀 / “NC” 系列 - 一般應用端銑刀

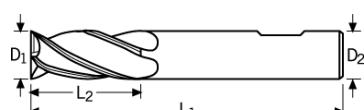
MICRO 100®



Tolerance
D₁: +0.025 -0.0 | D₂: -0.0025 to -0.008



D₂: 6 to 20 with Weldon flat



2-FLUTE TOOL NUMBER	3-FLUTE TOOL NUMBER	4-FLUTE TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
EMSM-020-2	EMSM-020-3	EMSM-020-4	2	2	38	10
EMSM-030-2	EMSM-030-3	EMSM-030-4	3	3	38	15
EMSM-040-2	EMSM-040-3	EMSM-040-4	4	4	50	18
EMSM-050-2	EMSM-050-3	EMSM-050-4	5	5	50	18
EMSM-060-2	EMSM-060-3	EMSM-060-4	6	6	57	18
EMSM-080-2	EMSM-080-3	EMSM-080-4	8	8	63	22
EMSM-100-2	EMSM-100-3	EMSM-100-4	10	10	72	25
EMSM-120-2	EMSM-120-3	EMSM-120-4	12	12	83	30
EMSM-140-2	EMSM-140-3	EMSM-140-4	14	14	83	35
EMSM-160-2	EMSM-160-3	EMSM-160-4	16	16	92	35
EMSM-180-2	EMSM-180-3	EMSM-180-4	18	18	92	45
EMSM-200-2	EMSM-200-3	EMSM-200-4	20	20	104	45

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

“T” Series - Universal Application Tapered End Mills

“T” Serie - Universal Kegelfräser

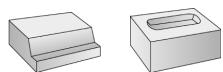
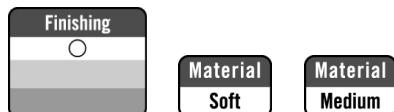
Serie “T” - Fresas cónicas de aplicación general

Série “T” - Fraises universelles coniques

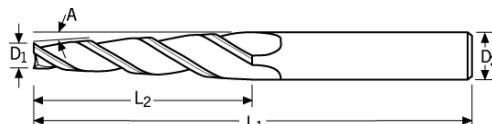
Serie “T” - Frese coniche per applicazioni universali

“T” 系列 - 通用型锥度立铣刀 / “T” 系列 - 一般應用錐度刀

MICRO 100®



Tolerance
D₁: +0.076 -0.0 | D₂: -0.0025 to -0.008



TOOL NUMBER	A	D ₁	D ₂	L ₁	L ₂
TEM-M-060-0.5	0° 30'	3	6	57	15
TEM-M-060-1	1°	3	6	57	15
TEM-M-060-1.5	1° 30'	3	6	57	15
TEM-M-060-2	2°	3	6	57	15
TEM-M-060-3	3°	3	6	57	15
TEM-M-060-5	5°	3	6	57	17
TEM-M-080-0.5	0° 30'	5	8	63	25
TEM-M-080-1	1°	5	8	63	25
TEM-M-080-1.5	1° 30'	5	8	63	25
TEM-M-080-2	2°	5	8	63	25
TEM-M-080-3	3°	5	8	63	25
TEM-M-080-5	5°	5	8	63	17
TEM-M-100-0.5	0° 30'	5	10	72	35
TEM-M-100-1	1°	5	10	72	35
TEM-M-100-1.5	1° 30'	5	10	72	35
TEM-M-100-5	5°	6	10	72	23
TEM-M-120-2	2°	8	12	83	40
TEM-M-120-2.5	2° 30'	8	12	83	40
TEM-M-120-3	3°	8	12	83	35
TEM-M-120-4	4°	8	12	83	29
TEM-M-120-5	5°	8	12	83	23
TEM-M-160-2	2°	12	16	92	50
TEM-M-160-2.5	2° 30'	12	16	92	46
TEM-M-160-3	3°	12	16	92	38
TEM-M-160-4	4°	12	16	92	23
TEM-M-160-5	5°	12	16	92	23

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

“H38” Series - High Performance End Mills

“H38” Serie - Hochleistungs Schaftfräser

Serie “H38” - Fresas de gran rendimiento

Série “H38” - Fraises haute performance

“H38” Serie - Frese ad alte prestazioni

“H38” 系列 - 高性能立铣刀 / “H38” 系列 - 高效率端铣刀

MICRO 100®

Universal
U-Star

Helix
38°

Flutes
2 4 6

Center Cutting

Rake
+

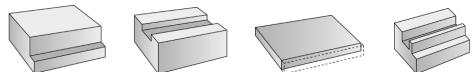
Coating
AlTiN

Material
Medium

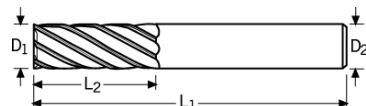
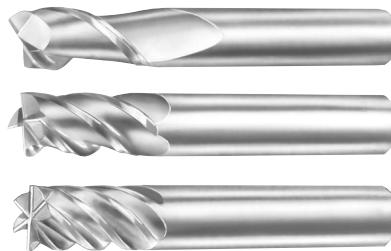
Material
Hard

Finishing
○

Semi-Finishing
○



Tolerance
D₁: h9 | D₂: -0.0025 to -0.008



STANDARD 2-FLUTE TOOL NUMBER	STANDARD 4-FLUTE TOOL NUMBER	STANDARD 6-FLUTE TOOL NUMBER	COATED 2-FLUTE TOOL NUMBER	COATED 4-FLUTE TOOL NUMBER	COATED 6-FLUTE TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
EMHM-030-2	EMHM-030-4		EMHM-030-2X	EMHM-030-4X		3	4	50	8
EMHM-040-2	EMHM-040-4		EMHM-040-2X	EMHM-040-4X		4	4	50	12
EMHM-050-2	EMHM-050-4		EMHM-050-2X	EMHM-050-4X		5	6	57	15
EMHM-060-2	EMHM-060-4	EMHM-060-6	EMHM-060-2X	EMHM-060-4X	EMHM-060-6X	6	6	57	18
EMHM-080-2	EMHM-080-4	EMHM-080-6	EMHM-080-2X	EMHM-080-4X	EMHM-080-6X	8	8	63	20
EMHM-100-2	EMHM-100-4	EMHM-100-6	EMHM-100-2X	EMHM-100-4X	EMHM-100-6X	10	10	72	22
EMHM-120-2	EMHM-120-4	EMHM-120-6	EMHM-120-2X	EMHM-120-4X	EMHM-120-6X	12	12	83	25
		EMHM-140-6			EMHM-140-6X	14	14	83	30
		EMHM-160-6			EMHM-160-6X	16	16	92	35
		EMHM-180-6			EMHM-180-6X	18	18	92	45
EMHM-200-4	EMHM-200-6		EMHM-200-4X	EMHM-200-6X		20	20	104	45

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

HSC End Mills - Soft Materials

HSC Schaftfräser - Weiche Werkstoffe

Fresas HSC - Materiales blandos

Fraises HSC - Matières tendres

HSC Frese - Materiali dolci

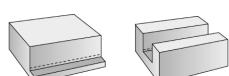
“HSC” 高速加工立铣刀-软材料用 / “HSC” 高速加工端铣刀 - 軟材

MICRO 100®

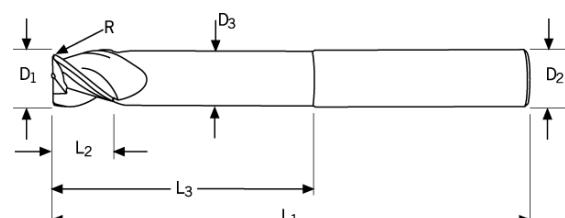
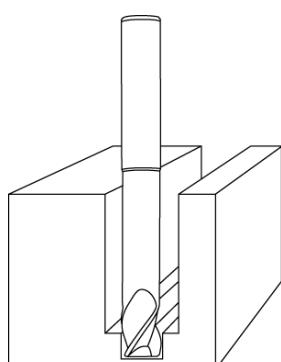
HSC V-Max	Helix 40°	Flutes 3 4	Center Cutting	Rake +	Coating AlTiN
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Material Soft	Material Medium
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Finishing	Semi-Finishing
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Tolerance	
D ₁ : h8	D ₂ : -0.0025 to -0.008



STANDARD 3-FLUTE TOOL NUMBER	STANDARD 4-FLUTE TOOL NUMBER	COATED 3-FLUTE TOOL NUMBER	COATED 4-FLUTE TOOL NUMBER	D ₁	D ₂	D ₃	L ₁	L ₂	L ₃	R
RNMM-060-3		RNMM-060-3X		6	6	5.6	66	6	30	0.50
RNMM-080-3		RNMM-080-3X		8	8	7.6	81	8	45	0.50
RNMM-100-3		RNMM-100-3X		10	10	9.6	90	10	50	1.00
RNMM-120-3		RNMM-120-3X		12	12	11.6	100	12	55	1.00
RNMM-160-3		RNMM-160-3X		16	16	15.6	120	16	72	1.00
RNMM-200-4		RNMM-200-4X		20	20	19.6	130	20	80	1.50

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

High Performance End Mills, Single Flute
Einschneidiger Hochleistungs Schaftfräser
Fresas de gran rendimiento un labio
Fraises haute performance à une coupe
Frese monotaglienti ad alte prestazioni
高性能立铣刀，单刃 / 高效率端铣刀，單刃

MICRO 100®

Aluminum
Soft Plus

Flutes
1

Rake
+

Material
Soft

Semi-Finishing

Roughing



Tolerance
D₁: +0.0 -0.04 | D₂: -0.0025 to -0.008



TOOL NUMBER	D ₁	D ₂	L ₁	L ₂	R
SFAM-020020	2	6	57	6	0.20
SFAM-030020	3	6	57	12	0.20
SFAM-040020	4	6	57	16	0.20
SFAM-050025	5	6	57	20	0.25
SFAM-060030	6	6	57	25	0.30
SFAM-060100	6	6	100	20	1.00
SFAM-080040	8	8	75	30	0.40
SFAM-080100	8	8	100	20	1.00
SFAM-100050	10	10	90	35	0.50
SFAM-100100	10	10	120	25	1.00
SFAM-120050	12	12	90	40	0.50
SFAM-120100	12	12	120	25	1.00
SFAM-160050	16	16	100	45	0.50
SFAM-160100	16	16	150	30	1.00
SFAM-200050	20	20	100	50	0.50
SFAM-200100	20	20	150	40	1.00

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

High Performance End Mills, Single Flute
Einschneidiger Hochleistungs Schaftfräser
Fresas de gran rendimiento, un labio
Fraises haute performance à une coupe
Frese monotaglienti ad alte prestazioni
高性能立铣刀, 单刃 / 高效率端铣刀, 單刃

MICRO 100®

Plastic
Soft Plus

Flutes
1

Rake
+

Material
Soft

Semi-Finishing

Roughing



Tolerance
 $D_1: +0.0 -0.04$ | $D_2: -0.0025 \text{ to } -0.008$



TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
SFPM-010-10	1	3	57	5
SFPM-020-10	2	3	57	6
SFPM-020-20	2	3	38	10
SFPM-020-30	2	3	57	12
SFPM-020-40	2	3	75	14
SFPM-030-10	3	3	57	8
SFPM-030-20	3	3	38	12
SFPM-030-50	3	6	57	8
SFPM-030-60	3	6	57	18
SFPM-030-70	3	6	75	18
SFPM-040-10	4	4	57	12
SFPM-040-20	4	4	40	15
SFPM-040-50	4	6	57	12
SFPM-040-60	4	6	57	20
SFPM-040-70	4	6	75	20
SFPM-040-80	4	8	95	20

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

High Performance End Mills, Single Flute
Einschneidiger Hochleistungs Schaftfräser
Fresas de gran rendimiento, un labio
Fraises haute performance à une coupe
Frese monotaglienti ad alte prestazioni
高性能立铣刀, 单刃 / 高效率端铣刀, 單刃

MICRO 100®

Plastic
Soft Plus

Flutes
1

Rake
+

Semi-Finishing

Roughing

Material
Soft



Tolerance
 $D_1: +0.0 -0.04$ | $D_2: -0.0025 \text{ to } -0.008$



TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
SFPM-050-10	5	5	50	16
SFPM-050-40	5	6	50	16
SFPM-050-50	5	6	60	28
SFPM-050-60	5	6	75	28
SFPM-050-70	5	8	95	20
SFPM-060-10	6	6	50	16
SFPM-060-20	6	6	60	20
SFPM-060-30	6	6	75	35
SFPM-060-50	6	8	75	35
SFPM-060-60	6	8	95	20
SFPM-080-10	8	8	50	18
SFPM-080-20	8	8	63	22
SFPM-080-30	8	8	75	30
SFPM-080-40	8	8	100	40
SFPM-100-10	10	10	72	25
SFPM-100-20	10	10	100	55
SFPM-100-30	10	10	150	30
SFPM-120-10	12	12	83	30
SFPM-120-20	12	12	150	40
SFPM-160-10	16	16	92	35
SFPM-160-20	16	16	150	50
SFPM-200-10	20	20	104	40
SFPM-200-20	20	20	150	50

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

“H45” Series - High Performance End Mills

“H45” Serie - Hochleistungs Schaftfräser

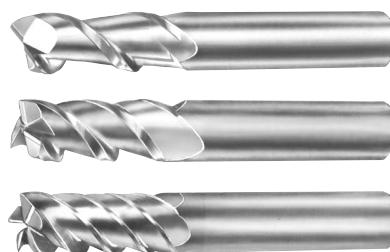
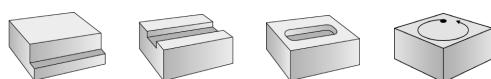
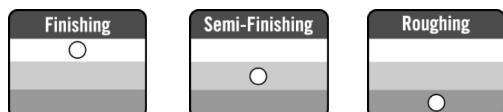
Serie “H45” - Fresas de gran rendimiento

Série “H45” - Fraises haute performance

“H45” Serie - Frese ad alte prestazioni

“H45” 高性能立铣刀 / “H45” 系列 - 高效率端铣刀

MICRO 100®



Tolerance
D₁: h8 | D₂: -0.0025 to -0.008

NEW	NEW	STANDARD 2-FLUTE TOOL NUMBER	STANDARD 3-FLUTE TOOL NUMBER	STANDARD 5-FLUTE TOOL NUMBER	NEW	NEW	COATED 2-FLUTE TOOL NUMBER	COATED 3-FLUTE TOOL NUMBER	COATED 5-FLUTE TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
ARMM-010-2					ARMM-010-2S					1	4	50	3
ARMM-020-2					ARMM-020-2S					2	4	50	6
ARMM-030-2				ARMM-030-5	ARMM-030-2S					3	6	57	10
ARMM-040-2				ARMM-040-5	ARMM-040-2S					4	6	57	15
ARMM-050-2				ARMM-050-5	ARMM-050-2S					5	6	57	20
ARMM-060-2	ARMM-060-3	ARMM-060-5	ARMM-060-2S	ARMM-060-3S	ARMM-060-5X					6	6	57	20
ARMM-080-2	ARMM-080-3	ARMM-080-5	ARMM-080-2S	ARMM-080-3S	ARMM-080-5X					8	8	63	25
ARMM-100-2	ARMM-100-3	ARMM-100-5	ARMM-100-2S	ARMM-100-3S	ARMM-100-5X					10	10	72	25
ARMM-120-2	ARMM-120-3	ARMM-120-5	ARMM-120-2S	ARMM-120-3S	ARMM-120-5X					12	12	83	30
ARMM-140-2	ARMM-140-3	ARMM-140-5	ARMM-140-2S	ARMM-140-3S	ARMM-140-5X					14	14	83	30
ARMM-160-2	ARMM-160-3	ARMM-160-5	ARMM-160-2S	ARMM-160-3S	ARMM-160-5X					16	16	92	35
ARMM-180-2	ARMM-180-3	ARMM-180-5	ARMM-180-2S	ARMM-180-3S	ARMM-180-5X					18	18	92	45
ARMM-200-2	ARMM-200-3	ARMM-200-5	ARMM-200-2S	ARMM-200-3S	ARMM-200-5X					20	20	104	45

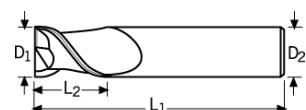
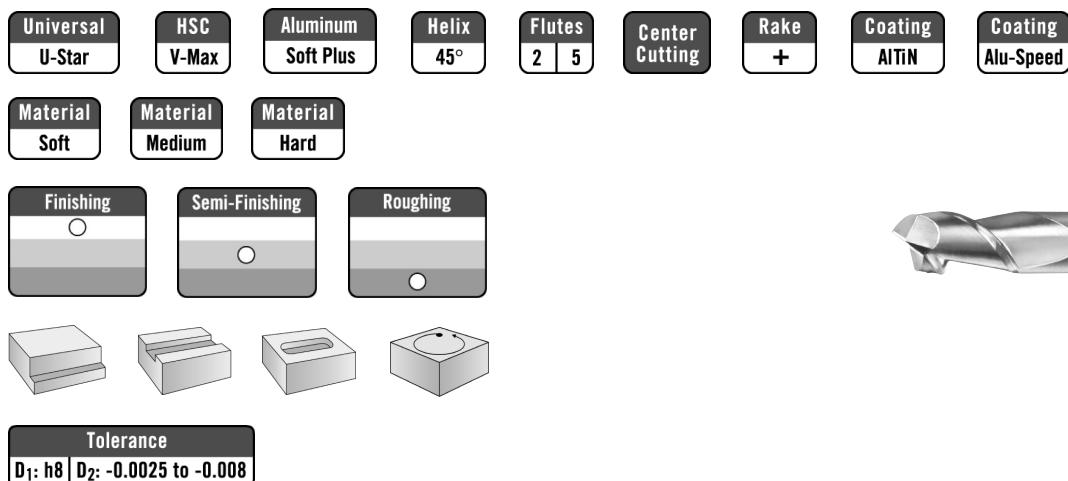
MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

“H45” Series - High Performance End Mills, Stub Length
“H45” Serie - Hochleistungs Schaftfräser, kurze Ausführung
Serie “H45” - Fresas de gran rendimiento, serie corta
Série “H45” - Fraises haute performance, exécution courte
“H45” Serie - Frese ad alte prestazioni, serie corta
“H45” 系列 - 高性能立铣刀, 短距型 / “H45” 系列 - 高效率端铣刀, 短刃

MICRO 100®



NEW STANDARD 2-FLUTE TOOL NUMBER	NEW STANDARD 5-FLUTE TOOL NUMBER	COATED 2-FLUTE TOOL NUMBER	COATED 5-FLUTE TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
ASMM-010-2		ASMM-010-2S		1	4	50	2
ASMM-020-2		ASMM-020-2S		2	4	50	4
ASMM-030-2	ASMM-030-5	ASMM-030-2S	ASMM-030-5X	3	6	57	6
ASMM-040-2	ASMM-040-5	ASMM-040-2S	ASMM-040-5X	4	6	57	8
ASMM-050-2	ASMM-050-5	ASMM-050-2S	ASMM-050-5X	5	6	57	10
ASMM-060-2	ASMM-060-5	ASMM-060-2S	ASMM-060-5X	6	6	57	10
ASMM-080-2	ASMM-080-5	ASMM-080-2S	ASMM-080-5X	8	8	63	16
ASMM-100-2	ASMM-100-5	ASMM-100-2S	ASMM-100-5X	10	10	72	19
ASMM-120-2	ASMM-120-5	ASMM-120-2S	ASMM-120-5X	12	12	83	22

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

“H45” Series - High Tech End Mills

“H45” Serie - High Tech Schaftfräser

Serie “H45” - Fresas High Tech

Série “H45” - Fraises High Tech

“H45” Serie - Frese High Tech

“H45” 系列 - 高科技立铣刀 / “H45” 系列 - 高科技端铣刀

MICRO 100®

**Hard Milling
H-Power**

**Helix
45°**

**Flutes
4 6**

**Center
Cutting**

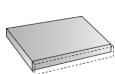
**Rake
-**

**Coating
AlTiN**

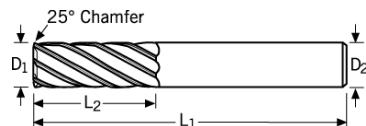
**Material
Hard**

Finishing
○

Semi-Finishing
○



Tolerance
D₁: h9 | D₂: -0.0025 to -0.008



4-FLUTE TOOL NUMBER	6-FLUTE TOOL NUMBER	D ₁	D ₂	L ₁	L ₂	25° Chamfer
MEMM-030-4X		3	6	57	6	.08
MEMM-040-4X		4	6	57	8	.10
MEMM-050-4X		5	6	57	10	.12
	MEMM-060-6X	6	6	57	12	.15
	MEMM-080-6X	8	8	63	16	.20
	MEMM-100-6X	10	10	72	20	.25
	MEMM-120-6X	12	12	83	24	.30
	MEMM-160-6X	16	16	92	32	.40
	MEMM-200-6X	20	20	104	40	.50

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

“H45” Series - Mold Making End Mills

“H45” Serie - Schaftfräser für den Werkzeug- und Formenbau

Serie “H45” - Fresas para moldistas

Série “H45” - Fraises pour la fabrication d'étampes et de moules

“H45” Serie - Frese per stampisti

“H45” 系列 - 模具加工立铣刀 / “H45” 系列 - 模具用端铣刀

MICRO 100®

Mold & Die
M-Plus

Helix
45°

Flutes
4 6

Center Cutting

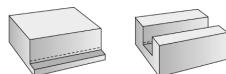
Rake
+

Coating
AlTiN

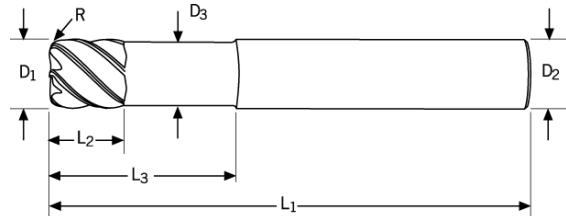
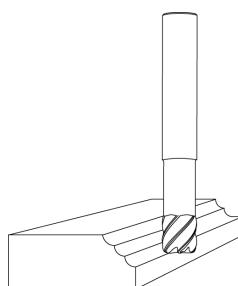
Finishing
○

Semi-Finishing
○

Material
Hard



Tolerance
D₁: h8 | D₂: -0.0025 to -0.008



STANDARD 4-FLUTE TOOL NUMBER	STANDARD 6-FLUTE TOOL NUMBER	COATED 4-FLUTE TOOL NUMBER	COATED 6-FLUTE TOOL NUMBER	D ₁	D ₂	D ₃	L ₁	L ₂	L ₃	R
RNRM-305-4		RNRM-305-4X		3	6	2.75	57	4.5	12.0	0.5
RNRM-405-4		RNRM-405-4X		4	6	3.70	57	6.0	13.5	0.5
RNRM-505-4		RNRM-505-4X		5	6	4.60	57	7.5	15.0	0.5
RNRM-605-4		RNRM-605-4X		6	6	5.50	66	9.0	24.0	0.5
RNRM-608-4		RNRM-608-4X		6	6	5.50	66	9.0	24.0	0.8
RNRM-610-4		RNRM-610-4X		6	6	5.50	66	9.0	24.0	1.0
RNRM-615-4		RNRM-615-4X		6	6	5.50	66	9.0	24.0	1.5
	RNRM-805-6		RNRM-805-6X	8	8	7.50	75	10.0	28.0	0.5
	RNRM-810-6		RNRM-810-6X	8	8	7.50	75	10.0	28.0	1.0
	RNRM-815-6		RNRM-815-6X	8	8	7.50	75	10.0	28.0	1.5
	RNRM-820-6		RNRM-820-6X	8	8	7.50	75	10.0	28.0	2.0
	RNRM-1005-6		RNRM-1005-6X	10	10	9.25	75	12.0	30.0	0.5
	RNRM-1010-6		RNRM-1010-6X	10	10	9.25	75	12.0	30.0	1.0
	RNRM-1015-6		RNRM-1015-6X	10	10	9.25	75	12.0	30.0	1.5
	RNRM-1020-6		RNRM-1020-6X	10	10	9.25	75	12.0	30.0	2.0
	RNRM-1025-6		RNRM-1025-6X	10	10	9.25	75	12.0	30.0	2.5
	RNRM-1210-6		RNRM-1210-6X	12	12	11.00	83	12.0	32.0	1.0
	RNRM-1215-6		RNRM-1215-6X	12	12	11.00	83	12.0	32.0	1.5
	RNRM-1220-6		RNRM-1220-6X	12	12	11.00	83	12.0	32.0	2.0
	RNRM-1230-6		RNRM-1230-6X	12	12	11.00	83	12.0	32.0	3.0

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Universal Hard Milling End Mills

Universal Schafffräser für die Hartzerspanung

Fresas para fresado duro general

Fraises universelles pour usinage dur

Frese per materiali duri

通用型硬铣削立铣刀 / 一般硬材铣削用端铣刀

MICRO 100®

Hard Milling
H-Power

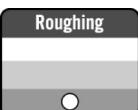
Flutes
4

Center
Cutting

Rake
—

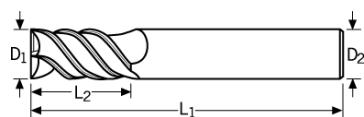
Coating
AlTiN

Material
Hard



Tolerance

D₁: h8 | D₂: -0.0025 to -0.005



TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
HMUM-040-4X	4	6	57	12
HMUM-060-4X	6	6	57	15
HMUM-080-4X	8	8	75	20
HMUM-100-4X	10	10	80	25
HMUM-120-4X	12	12	100	30
HMUM-160-4X	16	16	110	40
HMUM-200-4X	20	20	125	45

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Hard Milling End Mills, Stub Length

Schaftfräser für die Hartzerspanung, kurze Ausführung

Fresas para fresado furo, serie corta

Fraises pour usinage dur, exécution courte

Frese per materiali duri, serie corta

高效能硬铣削短距立铣刀 / 硬材铣削高效率短刃端铣刀

MICRO 100®

Hard Milling
H-Power

Flutes
4

Center Cutting

Rake
+

Coating
AlTiN

Material
Hard

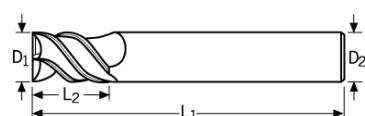
Finishing
○

Semi-Finishing
○

Roughing
●



Tolerance
D₁: h8 | D₂: -0.0025 to -0.005



TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
HMSM-030-4X	3	6	57	4.5
HMSM-040-4X	4	6	57	6.0
HMSM-050-4X	5	6	57	7.5
HMSM-060-4X	6	6	57	9.0
HMSM-080-4X	8	8	75	12.0
HMSM-100-4X	10	10	80	15.0
HMSM-120-4X	12	12	100	18.0
HMSM-160-4X	16	16	110	24.0
HMSM-200-4X	20	20	125	30.0

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Hard Milling High Performance End Mills

Hochleistungs Schaftfräser für die Hartzerspanung

Fresas de alto rendimiento para fresado duro

Fraises à haute performance pour usinage dur

Frese ad alte prestazioni per materiali duri

高效能硬铣削立铣刀 / 硬材铣削高效率端铣刀

MICRO 100®

Hard Milling
H-Power

Flutes
4

Center Cutting

Rake
+

Coating
AlTiN

Material
Hard

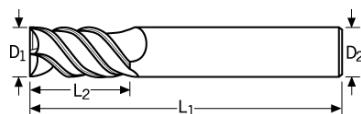
Finishing
○

Semi-Finishing
○

Roughing
●



Tolerance
D₁: h8 | D₂: -0.0025 to -0.005



TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
HMRM-030-4X	3	6	57	8
HMRM-040-4X	4	6	57	11
HMRM-050-4X	5	6	57	13
HMRM-060-4X	6	6	57	13
HMRM-080-4X	8	8	75	19
HMRM-100-4X	10	10	80	22
HMRM-120-4X	12	12	100	26
HMRM-160-4X	16	16	110	32
HMRM-200-4X	20	20	125	38

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Hard Milling End Mills with Corner Radius

Schafffräser mit Eckenradius für die Hartzerspanung

Fresas para fresado duro con radio en la punta

Fraises pour usinage dur, avec rayons

Frese toriche per materiali duri

高效能硬铣削立铣刀, 带有刀尖圆弧半径 / 硬材铣削高效率圆鼻刀

MICRO 100®

Hard Milling
H-Power

Flutes
4

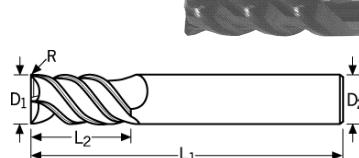
Center
Cutting

Rake
+

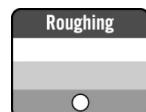
Coating
AITIN



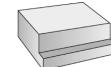
Tolerance
 $D_1: h8$ | $D_2: -0.0025$ to -0.005



TOOL NUMBER	D_1	D_2	L_1	L_2	R
HMCM-0302-4X	3	6	57	8	0.2
HMCM-0305-4X	3	6	57	8	0.5
HMCM-0402-4X	4	6	57	11	0.2
HMCM-0405-4X	4	6	57	11	0.5
HMCM-0410-4X	4	6	57	11	1.0
HMCM-0502-4X	5	6	57	13	0.2
HMCM-0505-4X	5	6	57	13	0.5
HMCM-0510-4X	5	6	57	13	1.0
HMCM-0603-4X	6	6	57	13	0.3
HMCM-0605-4X	6	6	57	13	0.5
HMCM-0610-4X	6	6	57	13	1.0
HMCM-0615-4X	6	6	57	13	1.5
HMCM-0803-4X	8	8	75	19	0.3
HMCM-0805-4X	8	8	75	19	0.5
HMCM-0810-4X	8	8	75	19	1.0
HMCM-0815-4X	8	8	75	19	1.5
HMCM-0820-4X	8	8	75	19	2.0
HMCM-1005-4X	10	10	80	22	0.5
HMCM-1010-4X	10	10	80	22	1.0
HMCM-1015-4X	10	10	80	22	1.5
HMCM-1020-4X	10	10	80	22	2.0
HMCM-1205-4X	12	12	100	26	0.5
HMCM-1210-4X	12	12	100	26	1.0
HMCM-1215-4X	12	12	100	26	1.5
HMCM-1220-4X	12	12	100	26	2.0
HMCM-1610-4X	16	16	110	32	1.0
HMCM-1615-4X	16	16	110	32	1.5
HMCM-1620-4X	16	16	110	32	2.0
HMCM-1630-4X	16	16	110	32	3.0
HMCM-2010-4X	20	20	125	38	1.0
HMCM-2015-4X	20	20	125	38	1.5
HMCM-2020-4X	20	20	125	38	2.0
HMCM-2030-4X	20	20	125	38	3.0



Material
Hard



MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

“H60” Series - High Performance End Mills

“H60” Serie - Hochleistungs Schaftfräser

Serie “H60” - Fresas de alto rendimiento

Série “H60” - Fraises à haute performance

“H60” Serie - Frese ad alte prestazioni

“H60” 系列 - 高性能立铣刀 / “H60” 系列 - 高效率端铣刀

MICRO 100®

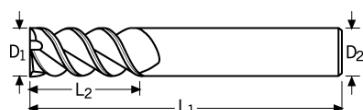
Helix
60° Flutes
3 | 4 Non-Center
Cutting Rake
+ Coating
AlTiN

Material
Medium Material
Hard

Finishing Semi-Finishing



Tolerance
D₁: h9 | D₂: -0.0025 to -0.008



STANDARD 3-FLUTE TOOL NUMBER	STANDARD 4-FLUTE TOOL NUMBER	COATED 3-FLUTE TOOL NUMBER	COATED 4-FLUTE TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
SDHM-050-3		SDHM-050-3X		5	6	57	15
SDHM-060-3		SDHM-060-3X		6	6	57	18
SDHM-080-3	SDHM-080-4	SDHM-080-3X	SDHM-080-4X	8	8	63	22
SDHM-100-3	SDHM-100-4	SDHM-100-3X	SDHM-100-4X	10	10	72	25
SDHM-120-3	SDHM-120-4	SDHM-120-3X	SDHM-120-4X	12	12	83	30
SDHM-140-3	SDHM-140-4	SDHM-140-3X	SDHM-140-4X	14	14	83	35
SDHM-160-3	SDHM-160-4	SDHM-160-3X	SDHM-160-4X	16	16	92	35
SDHM-180-3	SDHM-180-4	SDHM-180-3X	SDHM-180-4X	18	18	92	45
SDHM-200-3	SDHM-200-4	SDHM-200-3X	SDHM-200-4X	20	20	104	45

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

“A” Series - Long Length End Mills

“A” Serie - Schafffräser, lange Ausführung

Serie “A” - Fresas, serie larga

Série “A” - Fraises, exécution longue

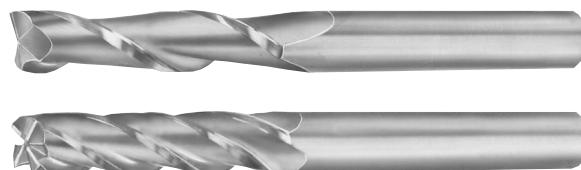
“A” Serie - Frese, serie lunga

“A” 系列 - 加长型立铣刀 / “A” 系列 - 長刃端銑刀

MICRO 100®



Tolerance
D₁: h9 | D₂: -0.0025 to -0.008



STANDARD 2-FLUTE TOOL NUMBER	STANDARD 4-FLUTE TOOL NUMBER	COATED 2-FLUTE TOOL NUMBER	COATED 4-FLUTE TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
AELM-020-2	AELM-020-4	AELM-020-2X	AELM-020-4X	2	6	75	10
AELM-030-2	AELM-030-4	AELM-030-2X	AELM-030-4X	3	6	75	15
AELM-040-2	AELM-040-4	AELM-040-2X	AELM-040-4X	4	6	75	20
AELM-050-2	AELM-050-4	AELM-050-2X	AELM-050-4X	5	6	100	25
AELM-060-2	AELM-060-4	AELM-060-2X	AELM-060-4X	6	6	100	30
AELM-070-2	AELM-070-4	AELM-070-2X	AELM-070-4X	7	6	100	35
AELM-080-2	AELM-080-4	AELM-080-2X	AELM-080-4X	8	8	100	40
AELM-090-2	AELM-090-4	AELM-090-2X	AELM-090-4X	9	8	100	45
AELM-100-2	AELM-100-4	AELM-100-2X	AELM-100-4X	10	10	120	50
AELM-110-2	AELM-110-4	AELM-110-2X	AELM-110-4X	11	10	120	50
AELM-120-2	AELM-120-4	AELM-120-2X	AELM-120-4X	12	12	130	55
AELM-130-2	AELM-130-4	AELM-130-2X	AELM-130-4X	13	12	130	55
AELM-140-2	AELM-140-4	AELM-140-2X	AELM-140-4X	14	12	140	60
AELM-150-2	AELM-150-4	AELM-150-2X	AELM-150-4X	15	12	140	60
AELM-160-2	AELM-160-4	AELM-160-2X	AELM-160-4X	16	16	150	65
AELM-170-2	AELM-170-4	AELM-170-2X	AELM-170-4X	17	16	150	65
AELM-180-2	AELM-180-4	AELM-180-2X	AELM-180-4X	18	16	150	65
AELM-200-2	AELM-200-4	AELM-200-2X	AELM-200-4X	20	20	150	75

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

“G” Series - Long Length End Mills

“G” Serie - Schaufräser, lange Ausführung

Serie “G” - Fresas serie larga

Série “G” - Fraises, exécution longue

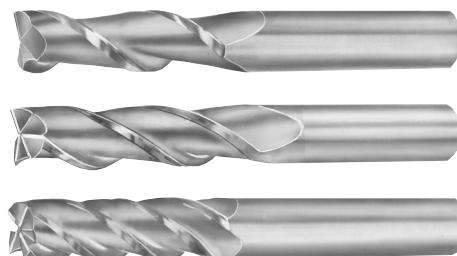
“G” Serie - Frese, serie lunga

“G” 系列 - 加长立铣刀 / “G” 系列 - 長刃端銑刀

MICRO 100®



Tolerance
D₁: h9 | D₂: -0.0025 to -0.008



STANDARD 2-FLUTE TOOL NUMBER	STANDARD 3-FLUTE TOOL NUMBER	STANDARD 4-FLUTE TOOL NUMBER	COATED 2-FLUTE TOOL NUMBER	COATED 3-FLUTE TOOL NUMBER	COATED 4-FLUTE TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
GELM-030-2	GELM-030-3	GELM-030-4	GELM-030-2X	GELM-030-3X	GELM-030-4X	3	3	75	25
GELM-040-2	GELM-040-3	GELM-040-4	GELM-040-2X	GELM-040-3X	GELM-040-4X	4	4	75	25
GELM-050-2	GELM-050-3	GELM-050-4	GELM-050-2X	GELM-050-3X	GELM-050-4X	5	5	75	25
GELM-060-2	GELM-060-3	GELM-060-4	GELM-060-2X	GELM-060-3X	GELM-060-4X	6	6	75	25
GELM-080-2	GELM-080-3	GELM-080-4	GELM-080-2X	GELM-080-3X	GELM-080-4X	8	8	75	30
GELM-100-2	GELM-100-3	GELM-100-4	GELM-100-2X	GELM-100-3X	GELM-100-4X	10	10	100	38
GELM-120-2	GELM-120-3	GELM-120-4	GELM-120-2X	GELM-120-3X	GELM-120-4X	12	12	100	50
GELM-140-2	GELM-140-3	GELM-140-4	GELM-140-2X	GELM-140-3X	GELM-140-4X	14	14	150	75
GELM-160-2	GELM-160-3	GELM-160-4	GELM-160-2X	GELM-160-3X	GELM-160-4X	16	16	150	75
GELM-180-2	GELM-180-3	GELM-180-4	GELM-180-2X	GELM-180-3X	GELM-180-4X	18	18	150	75
GELM-200-2	GELM-200-3	GELM-200-4	GELM-200-2X	GELM-200-3X	GELM-200-4X	20	20	150	75
GELM-250-2	GELM-250-3	GELM-250-4	GELM-250-2X	GELM-250-3X	GELM-250-4X	25	25	150	75

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Long Reach End Mills

Schaftfräser, lange Schaftausführung

Fresas de largo alcance

Fraises pour application profonde

Frese serie long reach

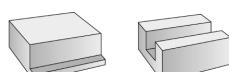
加长柄立铣刀 / 長柄端銑刀

MICRO 100®

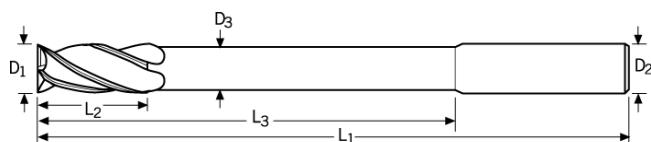
Helix 30°	Flutes 2 4	Center Cutting	Rake +	Coating AlTiN
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Material Soft	Material Medium	Material Hard
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Finishing <input type="radio"/>	Semi-Finishing <input type="radio"/>
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Tolerance	
D ₁ : h9	D ₂ : -0.0025 to -0.008



STANDARD 2-FLUTE TOOL NUMBER	STANDARD 4-FLUTE TOOL NUMBER	COATED 2-FLUTE TOOL NUMBER	COATED 4-FLUTE TOOL NUMBER	D ₁	D ₂	D ₃	L ₁	L ₂	L ₃
GLRM-020-2	GLRM-020-4	GLRM-020-2X	GLRM-020-4X	2	6	1.5	57	5	15
GLRM-030-2	GLRM-030-4	GLRM-030-2X	GLRM-030-4X	3	6	2.5	75	8	30
GLRM-040-2	GLRM-040-4	GLRM-040-2X	GLRM-040-4X	4	6	3.5	75	8	30
GLRM-050-2	GLRM-050-4	GLRM-050-2X	GLRM-050-4X	5	6	4.5	100	10	50
GLRM-060-2	GLRM-060-4	GLRM-060-2X	GLRM-060-4X	6	6	5.5	100	12	50
GLRM-080-2	GLRM-080-4	GLRM-080-2X	GLRM-080-4X	8	8	7.5	100	14	50
GLRM-100-2	GLRM-100-4	GLRM-100-2X	GLRM-100-4X	10	10	9.5	120	18	65
GLRM-120-2	GLRM-120-4	GLRM-120-2X	GLRM-120-4X	12	12	11.5	130	22	80
GLRM-160-2	GLRM-160-4	GLRM-160-2X	GLRM-160-4X	16	16	15.5	150	30	100
GLRM-200-2	GLRM-200-4	GLRM-200-2X	GLRM-200-4X	20	20	19.5	150	38	100

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

“H45” Series - Long Length High Performance End Mills

“H45” Serie - Hochleistungs Schaftfräser, lange Ausführung

Serie “H45” - Fresas de gran rendimiento, serie larga

Série “H45” - Fraise à haute performance, exécution longue

“H45” Serie - Frese ad alte prestazioni, serie lunga

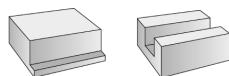
“H45” 系列 - 加长型高性能立铣刀 / “H45” 系列 - 長刃高效率端銑刀

MICRO 100®

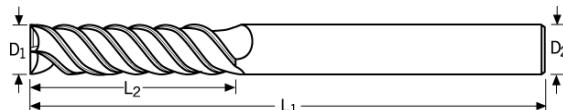
Helix 45° Flutes 5 Center Cutting Rake + Coating AlTiN

Material Medium Material Hard

Finishing ○ Semi-Finishing ○



Tolerance
D₁: h9 | D₂: -0.0025 to -0.008



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
ALMM-030-5	ALMM-030-5X	3	6	75	25
ALMM-040-5	ALMM-040-5X	4	6	75	25
ALMM-050-5	ALMM-050-5X	5	6	75	25
ALMM-060-5	ALMM-060-5X	6	6	75	25
ALMM-080-5	ALMM-080-5X	8	8	75	30
ALMM-100-5	ALMM-100-5X	10	10	100	38
ALMM-120-5	ALMM-120-5X	12	12	100	50
ALMM-160-5	ALMM-160-5X	16	16	150	75
ALMM-200-5	ALMM-200-5X	20	20	150	75

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Miniature Stub Ball Nose End Mills

Miniatur Radius Schaftfräser, kurze Ausführung

Fresas miniatura de punta de bola, serie corta

Fraises miniatures à rayon, exécution courte

Microfresa semisferiche, serie sorta

微型短球头铣刀 / 微小短刃球刀

MICRO 100®

Universal
U-Star

Helix
30°

Flutes
2 | 4

Center Cutting

Rake
+

Coating
AlTiN

Material
Soft

Material
Medium

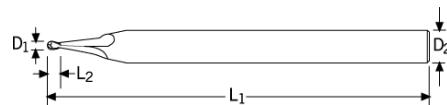
Material
Hard

Finishing
○

Semi-Finishing
○



Tolerance
D₁: h8 | D₂: -0.0025 to -0.008



STANDARD 2-FLUTE TOOL NUMBER	STANDARD 4-FLUTE TOOL NUMBER	COATED 2-FLUTE TOOL NUMBER	COATED 4-FLUTE TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
BMSM-003-2		BMSM-003-2X		0.3	3	38	0.5
BMSM-004-2		BMSM-004-2X		0.4	3	38	0.6
BMSM-005-2		BMSM-005-2X		0.5	3	38	0.8
BMSM-006-2		BMSM-006-2X		0.6	3	38	0.9
BMSM-007-2		BMSM-007-2X		0.7	3	38	1.1
BMSM-008-2		BMSM-008-2X		0.8	3	38	1.2
BMSM-009-2		BMSM-009-2X		0.9	3	38	1.4
BMSM-010-2	BMSM-010-4	BMSM-010-2X	BMSM-010-4X	1.0	3	38	1.5
BMSM-011-2	BMSM-011-4	BMSM-011-2X	BMSM-011-4X	1.1	3	38	1.7
BMSM-012-2	BMSM-012-4	BMSM-012-2X	BMSM-012-4X	1.2	3	38	1.8
BMSM-013-2	BMSM-013-4	BMSM-013-2X	BMSM-013-4X	1.3	3	38	2.0
BMSM-014-2	BMSM-014-4	BMSM-014-2X	BMSM-014-4X	1.4	3	38	2.1
BMSM-015-2	BMSM-015-4	BMSM-015-2X	BMSM-015-4X	1.5	3	38	2.3
BMSM-016-2	BMSM-016-4	BMSM-016-2X	BMSM-016-4X	1.6	3	38	2.4
BMSM-017-2	BMSM-017-4	BMSM-017-2X	BMSM-017-4X	1.7	3	38	2.5
BMSM-018-2	BMSM-018-4	BMSM-018-2X	BMSM-018-4X	1.8	3	38	2.7
BMSM-019-2	BMSM-019-4	BMSM-019-2X	BMSM-019-4X	1.9	3	38	2.8
BMSM-020-2	BMSM-020-4	BMSM-020-2X	BMSM-020-4X	2.0	3	38	3.0
BMSM-025-2	BMSM-025-4	BMSM-025-2X	BMSM-025-4X	2.5	3	38	3.8

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Miniature Ball Nose End Mills

Miniatur Radius Schaftfräser

Fresas miniatura de punta de pola

Fraises miniatures à rayon

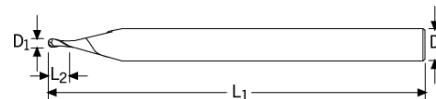
Microfresa semisferiche

微型球头铣刀 / 微小球刀

MICRO 100®

Universal U-Star	Helix 30°	Flutes 2 4	Center Cutting	Rake +	Coating AlTiN
Material Soft	Material Medium	Material Hard			
Finishing ○	Semi-Finishing ○				

Tolerance
D₁: h8 | D₂: -0.0025 to -0.008

STANDARD 2-FLUTE TOOL NUMBER	STANDARD 4-FLUTE TOOL NUMBER	COATED 2-FLUTE TOOL NUMBER	COATED 4-FLUTE TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
BMRM-005-2		BMRM-005-2X		0.5	4	50	1.5
BMRM-006-2		BMRM-006-2X		0.6	4	50	1.8
BMRM-007-2		BMRM-007-2X		0.7	4	50	2.1
BMRM-008-2		BMRM-008-2X		0.8	4	50	2.4
BMRM-009-2		BMRM-009-2X		0.9	4	50	2.7
BMRM-010-2	BMRM-010-4	BMRM-010-2X	BMRM-010-4X	1.0	4	50	3.0
BMRM-011-2	BMRM-011-4	BMRM-011-2X	BMRM-011-4X	1.1	4	50	3.3
BMRM-012-2	BMRM-012-4	BMRM-012-2X	BMRM-012-4X	1.2	4	50	3.8
BMRM-013-2	BMRM-013-4	BMRM-013-2X	BMRM-013-4X	1.3	4	50	3.9
BMRM-014-2	BMRM-014-4	BMRM-014-2X	BMRM-014-4X	1.4	4	50	4.2
BMRM-015-2	BMRM-015-4	BMRM-015-2X	BMRM-015-4X	1.5	4	50	4.2
BMRM-016-2	BMRM-016-4	BMRM-016-2X	BMRM-016-4X	1.6	4	50	4.8
BMRM-018-2	BMRM-018-4	BMRM-018-2X	BMRM-018-4X	1.8	4	50	5.3
BMRM-020-2	BMRM-020-4	BMRM-020-2X	BMRM-020-4X	2.0	4	50	6.0
BMRM-025-2	BMRM-025-4	BMRM-025-2X	BMRM-025-4X	2.5	4	50	8.0
BMRM-030-2	BMRM-030-4	BMRM-030-2X	BMRM-030-4X	3.0	4	50	9.0
BMRM-035-2	BMRM-035-4	BMRM-035-2X	BMRM-035-4X	3.5	4	50	10.5

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Mold Making Ball Nose End Mills

Radius Schaftfräser für den Werkzeug- und Formenbau

Fresas de punta de bola para moldistas

Fraises à rayon pour la fabrication d'étampes et de moules

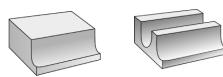
Frese semisferiche per stampisti

模具球头铣刀 / 模具用球刀

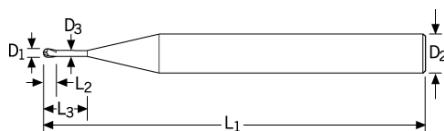
MICRO 100®

Mold & Die M-Plus	Helix 30°	Flutes 2	Center Cutting	Rake +	Coating AlTiN
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Finishing ○	Material Medium	Material Hard
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Tolerance
D₁: h8 | D₂: -0.0025 to -0.008



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	D ₃	L ₁	L ₂	L ₃
MMBM-003-3	MMBM-003-3X	0.3	4	0.28	50	0.3	3
MMBM-003-6	MMBM-003-6X	0.3	4	0.28	50	0.3	6
MMBM-004-3	MMBM-004-3X	0.4	4	0.38	50	0.4	3
MMBM-004-8	MMBM-004-8X	0.4	4	0.38	50	0.4	8
MMBM-005-5	MMBM-005-5X	0.5	4	0.48	50	0.5	5
MMBM-005-10	MMBM-005-10X	0.5	4	0.48	50	0.5	10
MMBM-006-5	MMBM-006-5X	0.6	4	0.58	50	0.6	5
MMBM-006-12	MMBM-006-12X	0.6	4	0.58	50	0.6	12
MMBM-008-5	MMBM-008-5X	0.8	4	0.78	50	0.8	5
MMBM-008-10	MMBM-008-10X	0.8	4	0.78	50	0.8	10
MMBM-008-16	MMBM-008-16X	0.8	4	0.78	50	0.8	16
MMBM-010-6	MMBM-010-6X	1.0	6	0.95	57	1.0	6
MMBM-010-11	MMBM-010-11X	1.0	6	0.95	57	1.0	11
MMBM-010-20	MMBM-010-20X	1.0	6	0.95	57	1.0	20
MMBM-012-7	MMBM-012-7X	1.2	6	1.15	57	1.2	7
MMBM-012-15	MMBM-012-15X	1.2	6	1.15	57	1.2	15
MMBM-012-20	MMBM-012-20X	1.2	6	1.15	57	1.2	20
MMBM-015-7	MMBM-015-7X	1.5	6	1.45	57	1.5	7
MMBM-015-15	MMBM-015-15X	1.5	6	1.45	57	1.5	15
MMBM-015-20	MMBM-015-20X	1.5	6	1.45	57	1.5	20
MMBM-020-7	MMBM-020-7X	2.0	6	1.90	57	2.0	7
MMBM-020-15	MMBM-020-15X	2.0	6	1.90	57	2.0	15
MMBM-020-20	MMBM-020-20X	2.0	6	1.90	57	2.0	20
MMBM-030-12	MMBM-030-12X	3.0	6	2.90	57	3.0	12
MMBM-030-15	MMBM-030-15X	3.0	6	2.90	57	3.0	15
MMBM-040-15	MMBM-040-15X	4.0	6	3.80	57	4.0	15
MMBM-050-15	MMBM-050-15X	5.0	6	4.80	57	5.0	15

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

HSC Shrink Fit Ball End Mills

HSC Radius Schaftfräser zum Einschrumpfen

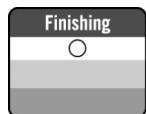
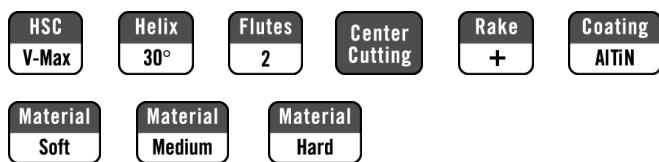
Fresas HSC de bola de ajuste por reducción

Fraises HSC pour serrage par frettage

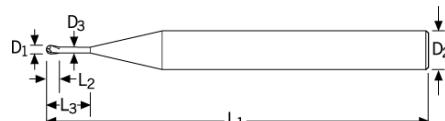
HSC Frese semisferiche per calettamento a caldo

“HSC” 高速加工用热缩柄立铣刀 / “HSC” 高速加工熱縮用球刀

MICRO 100®



Tolerance
D₁: h8 | D₂: -0.0025 to -0.005



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	D ₃	L ₁	L ₂	L ₃
SFBM-002-0	SFBM-002-OX	0.2	6		57	0.3	
SFBM-003-0	SFBM-003-OX	0.3	6		57	0.4	
SFBM-003-1	SFBM-003-1X	0.3	6	0.25	57	0.4	1.0
SFBM-004-0	SFBM-004-OX	0.4	6		57	0.5	
SFBM-004-1	SFBM-004-1X	0.4	6	0.35	57	0.5	1.2
SFBM-005-1	SFBM-005-1X	0.5	6	0.45	57	0.6	1.6
SFBM-005-3	SFBM-005-3X	0.5	6	0.45	57	0.5	3.3
SFBM-005-5	SFBM-005-5X	0.5	6	0.45	57	0.5	5.1
SFBM-006-2	SFBM-006-2X	0.6	6	0.55	57	0.7	1.7
SFBM-006-4	SFBM-006-4X	0.6	6	0.55	57	0.6	4.5
SFBM-006-6	SFBM-006-6X	0.6	6	0.55	57	0.6	6.2
SFBM-008-2	SFBM-008-2X	0.8	6	0.75	57	1.0	2.5
SFBM-008-5	SFBM-008-5X	0.8	6	0.75	57	0.8	5.2
SFBM-008-8	SFBM-008-8X	0.8	6	0.75	57	0.8	8.0
SFBM-010-3	SFBM-010-3X	1.0	6	0.95	57	1.3	3.3
SFBM-010-8	SFBM-010-8X	1.0	6	0.95	57	1.3	8.0

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

HSC Shrink Fit Ball End Mills

HSC Radius Schaftfräser zum Einschrumpfen

Fresas HSC de bola de ajuste por reducción

Fraises HSC pour serrage par frettage

HSC Frese semisferiche per calettamento a caldo

“HSC” 高速加工用热缩柄立铣刀 / “HSC” 高速加工熱縮用球刀

MICRO 100®

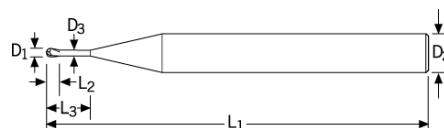
HSC V-Max	Helix 30°	Flutes 2	Center Cutting	Rake +	Coating AlTiN
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Material Soft	Material Medium	Material Hard
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Finishing	<input type="radio"/>
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Tolerance
D₁: h8 | D₂: -0.0025 to -0.005



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	D ₃	L ₁	L ₂	L ₃
SFBM-012-3	SFBM-012-3X	1.2	6	1.15	57	1.5	3.5
SFBM-012-8	SFBM-012-8X	1.2	6	1.15	57	1.2	8.0
SFBM-014-3	SFBM-014-3X	1.4	6	1.35	57	1.8	3.8
SFBM-014-15	SFBM-014-15X	1.4	6	1.35	57	2.3	15.0
SFBM-015-4	SFBM-015-4X	1.5	6	1.45	57	1.9	4.9
SFBM-015-9	SFBM-015-9X	1.5	6	1.45	57	1.5	9.5
SFBM-016-5	SFBM-016-5X	1.6	6	1.55	57	2.0	5.0
SFBM-016-22	SFBM-016-22X	1.8	6	1.55	57	2.3	22.0
SFBM-018-5	SFBM-018-5X	1.8	6	1.75	57	2.3	5.3
SFBM-020-5	SFBM-020-5X	2.0	6	1.95	57	2.5	5.5
SFBM-020-9	SFBM-020-9X	2.0	6	1.95	57	2.5	9.5
SFBM-025-6	SFBM-025-6X	2.5	6	2.40	57	3.0	6.0
SFBM-025-9	SFBM-025-9X	2.5	6	2.40	57	2.5	9.5
SFBM-030-8	SFBM-030-8X	3.0	6	2.90	57	4.0	8.0
SFBM-030-15	SFBM-030-15X	3.0	6	2.90	57	4.0	15.0
SFBM-035-9	SFBM-035-9X	3.5	6	3.40	57	4.5	9.5
SFBM-040-10	SFBM-040-10X	4.0	6	3.90	57	5.0	10.0
SFBM-040-20	SFBM-040-20X	4.0	6	3.90	57	5.0	20.0
SFBM-050-11	SFBM-050-11X	5.0	6	4.90	57	6.0	11.0
SFBM-050-25	SFBM-050-25X	5.0	6	4.90	57	6.0	25.0
SFBM-060-12	SFBM-060-12X	6.0	6	5.90	57	7.5	12.5
SFBM-060-25	SFBM-060-25X	6.0	6	5.90	57	7.5	25.0

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Universal Application Ball Nose End Mills

Universal Radius Schaftfräser

Fresas de punta de bola de aplicación general

Fraises à rayon universelles

Frese semisferiche per applicazioni universali

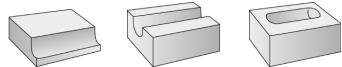
通用球头铣刀 / 一般應用球刀

MICRO 100®

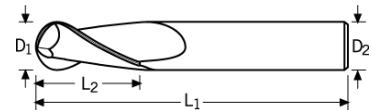
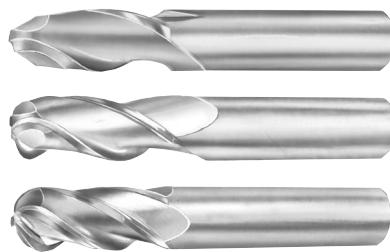
Universal U-Star **Helix 30°** **Flutes 2 | 3 | 4** **Center Cutting** **Rake +** **Coating AlTiN**

Material Soft **Material Medium** **Material Hard**

Finishing **Semi-Finishing** **Roughing**



Tolerance
D₁: h8 | D₂: -0.0025 to -0.008



STANDARD 2-FLUTE TOOL NUMBER	STANDARD 3-FLUTE TOOL NUMBER	STANDARD 4-FLUTE TOOL NUMBER	COATED 2-FLUTE TOOL NUMBER	COATED 3-FLUTE TOOL NUMBER	COATED 4-FLUTE TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
BEMM-030-2	BEMM-030-3	BEMM-030-4	BEMM-030-2X	BEMM-030-3X	BEMM-030-4X	3	3	38	15
BEMM-040-2	BEMM-040-3	BEMM-040-4	BEMM-040-2X	BEMM-040-3X	BEMM-040-4X	4	4	50	18
BEMM-050-2	BEMM-050-3	BEMM-050-4	BEMM-050-2X	BEMM-050-3X	BEMM-050-4X	5	5	50	18
BEMM-060-2	BEMM-060-3	BEMM-060-4	BEMM-060-2X	BEMM-060-3X	BEMM-060-4X	6	6	57	18
BEMM-080-2	BEMM-080-3	BEMM-080-4	BEMM-080-2X	BEMM-080-3X	BEMM-080-4X	8	8	63	22
BEMM-100-2	BEMM-100-3	BEMM-100-4	BEMM-100-2X	BEMM-100-3X	BEMM-100-4X	10	10	72	25
BEMM-120-2	BEMM-120-3	BEMM-120-4	BEMM-120-2X	BEMM-120-3X	BEMM-120-4X	12	12	83	30
BEMM-140-2	BEMM-140-3	BEMM-140-4	BEMM-140-2X	BEMM-140-3X	BEMM-140-4X	14	14	83	35
BEMM-160-2	BEMM-160-3	BEMM-160-4	BEMM-160-2X	BEMM-160-3X	BEMM-160-4X	16	16	92	35
BEMM-180-2	BEMM-180-3	BEMM-180-4	BEMM-180-2X	BEMM-180-3X	BEMM-180-4X	18	18	92	45
BEMM-200-2	BEMM-200-3	BEMM-200-4	BEMM-200-2X	BEMM-200-3X	BEMM-200-4X	20	20	104	45

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Universal Tapered Ball Nose End Mills

Universal Radius Kegelfräser

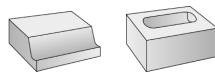
Fresas cónicas de punta de bola de aplicación general

Fraises à rayon universelles coniques

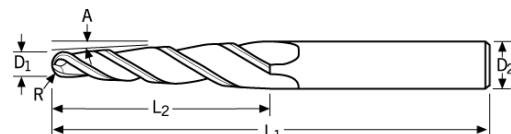
Frese coniche semisferiche per applicazioni universali

“T” 通用型锥度球头立铣刀 / “T” 一般用錐度球刀

MICRO 100®



Tolerance
D₁: +0.076 -0.0 | D₂: -0.0025 to -0.008



TOOL NUMBER	A	D ₁	D ₂	L ₁	L ₂	R
TEBM-060-0.5	0° 30'	3	6	57	15	1.5
TEBM-060-1	1°	3	6	57	15	1.5
TEBM-060-1.5	1° 30'	3	6	57	15	1.5
TEBM-060-2	2°	3	6	57	15	1.5
TEBM-060-3	3°	3	6	57	15	1.5
TEBM-060-5	5°	3	6	57	17	1.5
TEBM-080-0.5	0° 30'	5	8	63	25	2.5
TEBM-080-1	1°	5	8	63	25	2.5
TEBM-080-1.5	1° 30'	5	8	63	25	2.5
TEBM-080-2	2°	5	8	63	25	2.5
TEBM-080-3	3°	5	8	63	25	2.5
TEBM-080-5	5°	5	8	63	17	2.5
TEBM-100-0.5	0° 30'	5	10	72	35	2.5
TEBM-100-1	1°	5	10	72	35	2.5
TEBM-100-1.5	1° 30'	5	10	72	35	2.5
TEBM-100-5	5°	6	10	72	23	3.0
TEBM-120-2	2°	8	12	83	40	4.0
TEBM-120-2.5	2° 30'	8	12	83	40	4.0
TEBM-120-3	3°	8	12	83	35	4.0
TEBM-120-4	4°	8	12	83	29	4.0
TEBM-120-5	5°	8	12	83	23	4.0
TEBM-160-2	2°	12	16	92	50	6.0
TEBM-160-2.5	2° 30'	12	16	92	46	6.0
TEBM-160-3	3°	12	16	92	38	6.0
TEBM-160-4	4°	12	16	92	23	6.0
TEBM-160-5	5°	12	16	92	23	6.0

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

“H38” Series - High Performance Ball Nose End Mills

“H38” Serie - Hochleistungs Radius Schaftfräser

Serie “H38” - Fresas de punta de bola de alto rendimiento

Série “H38” - Fraises à rayon haute performance

“H38” Serie - Frese semisferiche ad alte prestazioni

“H38” 系列 - 高性能球头立铣刀 / “H38” 系列 - 高效率球刀

MICRO 100®

Helix
38°

Flutes
4

Center
Cutting

Rake
+

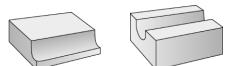
Coating
AlTiN

Material
Medium

Material
Hard

Finishing

Semi-Finishing



Tolerance

D₁: h8 | D₂: -0.0025 to -0.008



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
BMHM-030-4	BMHM-030-4X	3	4	50	8
BMHM-040-4	BMHM-040-4X	4	4	50	12
BMHM-050-4	BMHM-050-4X	5	6	57	15
BMHM-060-4	BMHM-060-4X	6	6	57	18
BMHM-080-4	BMHM-080-4X	8	8	63	20
BMHM-100-4	BMHM-100-4X	10	10	72	22
BMHM-120-4	BMHM-120-4X	12	12	83	25
BMHM-140-4	BMHM-140-4X	14	14	83	35
BMHM-160-4	BMHM-160-4X	16	16	92	35
BMHM-180-4	BMHM-180-4X	18	18	92	45
BMHM-200-4	BMHM-200-4X	20	20	104	45
BMHM-250-4	BMHM-250-4X	25	25	127	50

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Universal Hard Milling Ball Nose End Mills

Universal Radius Schaftfräser für die Hartzerspanung

Fresas universales de punta de bola para fresado duro

Fraises à rayon universelles pour usinage dur

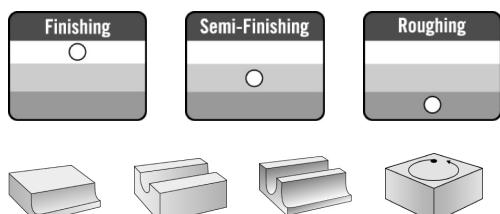
Frese semisferiche per materiali duri

通用高硬度球头铣刀 / 一般硬材銑削用球刀

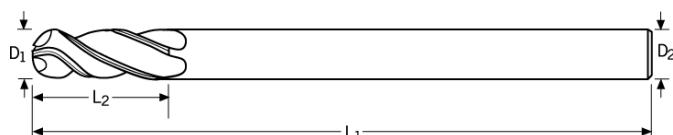
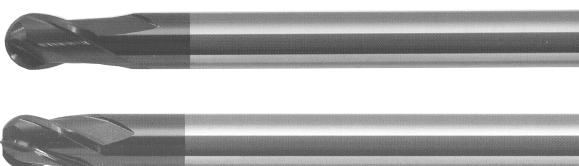
MICRO 100®

Hard Milling H-Power	Flutes 2 4	Center Cutting	Rake —	Coating AlTiN
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Material Hard



Tolerance
D ₁ : h8 D ₂ : -0.0025 to -0.005



2-FLUTE TOOL NUMBER	4-FLUTE TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
HMBM-010-2X		1.0	4	50	1.5
HMBM-015-2X		1.5	4	50	2.0
HMBM-020-2X		2.0	6	57	3.0
HMBM-025-2X		2.5	6	57	4.0
HMBM-030-2X		3.0	6	70	4.5
HMBM-040-2X		4.0	6	70	6.0
HMBM-050-2X		5.0	6	80	7.5
HMBM-060-2X	HMBM-060-4X	6.0	6	90	9.0
HMBM-080-2X	HMBM-080-4X	8.0	8	100	12.0
HMBM-100-2X	HMBM-100-4X	10.0	10	100	15.0
HMBM-120-2X	HMBM-120-4X	12.0	12	110	18.0
HMBM-160-2X		16.0	16	140	24.0
HMBM-200-2X		20.0	20	160	30.0

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Long Length Ball Nose End Mills

Radius Schaftfräser, lange Ausführung

Fresas de punta de bola, serie larga

Fraises à rayon, exécution longue

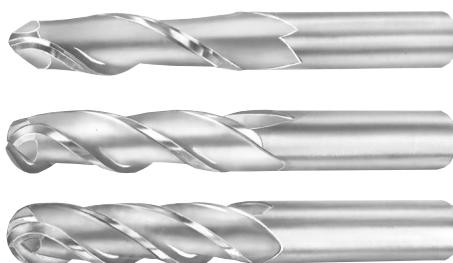
Frese semisferiche, serie lunga

长刃球头立铣刀 / 長刃球刀

MICRO 100®



Tolerance
D₁: h9 | D₂: -0.0025 to -0.008



STANDARD 2-FLUTE TOOL NUMBER	STANDARD 3-FLUTE TOOL NUMBER	STANDARD 4-FLUTE TOOL NUMBER	COATED 2-FLUTE TOOL NUMBER	COATED 3-FLUTE TOOL NUMBER	COATED 4-FLUTE TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
BELM-030-2	BELM-030-3	BELM-030-4	BELM-030-2X	BELM-030-3X	BELM-030-4X	3	3	75	25
BELM-040-2	BELM-040-3	BELM-040-4	BELM-040-2X	BELM-040-3X	BELM-040-4X	4	4	75	25
BELM-050-2	BELM-050-3	BELM-050-4	BELM-050-2X	BELM-050-3X	BELM-050-4X	5	5	75	25
BELM-060-2	BELM-060-3	BELM-060-4	BELM-060-2X	BELM-060-3X	BELM-060-4X	6	6	75	25
BELM-080-2	BELM-080-3	BELM-080-4	BELM-080-2X	BELM-080-3X	BELM-080-4X	8	8	75	25
BELM-100-2	BELM-100-3	BELM-100-4	BELM-100-2X	BELM-100-3X	BELM-100-4X	10	10	100	38
BELM-120-2	BELM-120-3	BELM-120-4	BELM-120-2X	BELM-120-3X	BELM-120-4X	12	12	100	50
BELM-140-2	BELM-140-3	BELM-140-4	BELM-140-2X	BELM-140-3X	BELM-140-4X	14	14	150	75
BELM-160-2	BELM-160-3	BELM-160-4	BELM-160-2X	BELM-160-3X	BELM-160-4X	16	16	150	75
BELM-180-2	BELM-180-3	BELM-180-4	BELM-180-2X	BELM-180-3X	BELM-180-4X	18	18	150	75
BELM-200-2	BELM-200-3	BELM-200-4	BELM-200-2X	BELM-200-3X	BELM-200-4X	20	20	150	75
BELM-250-2	BELM-250-3	BELM-250-4	BELM-250-2X	BELM-250-3X	BELM-250-4X	25	25	150	75

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Long Reach Ball Nose End Mills

Radius Schaftfräser, lange Schaftausführung

Fresas de punta de bola de largo alcance

Fraises à rayon pour application profonde

Frese semisferiche serie long reach

长柄球头铣刀 / 長柄球刀

MICRO 100®

Mold & Die
M-Plus

Helix
30°

Flutes
2 3 4

Center Cutting

Rake
+

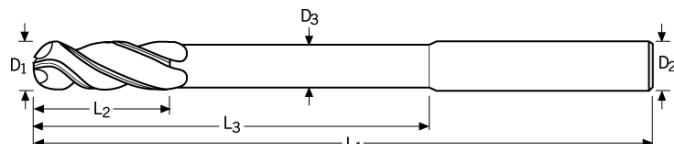
Coating
AlTiN

Material
Medium

Material
Hard



Tolerance
D₁: h9 | D₂: -0.0025 to -0.008



STANDARD 2-FLUTE TOOL NUMBER	STANDARD 3-FLUTE TOOL NUMBER	STANDARD 4-FLUTE TOOL NUMBER	COATED 2-FLUTE TOOL NUMBER	COATED 3-FLUTE TOOL NUMBER	COATED 4-FLUTE TOOL NUMBER	D ₁	D ₂	D ₃	L ₁	L ₂	L ₃
BLRM-020-2	BLRM-020-3	BLRM-020-4	BLRM-020-2X	BLRM-020-3X	BLRM-020-4X	2	6	1.5	57	5	15
BLRM-030-2	BLRM-030-3	BLRM-030-4	BLRM-030-2X	BLRM-030-3X	BLRM-030-4X	3	6	2.5	75	8	30
BLRM-040-2	BLRM-040-3	BLRM-040-4	BLRM-040-2X	BLRM-040-3X	BLRM-040-4X	4	6	3.5	75	8	30
BLRM-050-2	BLRM-050-3	BLRM-050-4	BLRM-050-2X	BLRM-050-3X	BLRM-050-4X	5	6	4.5	100	10	50
BLRM-060-2	BLRM-060-3	BLRM-060-4	BLRM-060-2X	BLRM-060-3X	BLRM-060-4X	6	6	5.5	100	12	50
BLRM-080-2	BLRM-080-3	BLRM-080-4	BLRM-080-2X	BLRM-080-3X	BLRM-080-4X	8	8	7.5	100	14	50
BLRM-100-2	BLRM-100-3	BLRM-100-4	BLRM-100-2X	BLRM-100-3X	BLRM-100-4X	10	10	9.5	120	18	65
BLRM-120-2	BLRM-120-3	BLRM-120-4	BLRM-120-2X	BLRM-120-3X	BLRM-120-4X	12	12	11.5	130	22	80
BLRM-160-2	BLRM-160-3	BLRM-160-4	BLRM-160-2X	BLRM-160-3X	BLRM-160-4X	16	16	15.5	150	30	100
BLRM-200-2	BLRM-200-3	BLRM-200-4	BLRM-200-2X	BLRM-200-3X	BLRM-200-4X	20	20	19.5	150	38	100

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Technical Application Data - End Mills
Technische Anwendungsdaten - Schaftfräser
Datos de aplicación técnica - Fresas
Données techniques d'utilisation - Fraises
Dati tecnici applicazioni - Frese
使用技术指南 - 立铣刀 / 技術應用手冊 - 端銑刀



This chart represents speed and recommendations only. Actual cutting data may vary due to existing cutting conditions. Recommendations may be increased up to 25% with coated tools.

$$\begin{array}{ll} \text{Cutting Speed} & \text{RPM} = (\text{Cutting Speed} \times 1000) / (\text{Tool Diameter} \times 3.42) \\ \text{Feed Rate} & \text{Feed} = \text{Feed per Tooth} \times \text{Number of Flutes} \times \text{RPM} \end{array}$$

MATERIAL	CUTTING SPEED V m/min.	FEED PER TOOTH fz –mm Finishing/Profiling	FEED PER TOOTH fz –mm Slotting/Roughing	CUTTING CONDITIONS
Aluminum	200 – 450	0.007 – 0.12	0.003 – 0.10	Coolant
Aluminum Alloys under 6% Si	200 – 450	0.007 – 0.12	0.003 – 0.10	Coolant
Aluminum Alloys over 6% Si	150 – 200	0.007 – 0.12	0.003 – 0.10	Coolant
Cast Iron, Soft	120 – 220	0.005 – 0.10	0.003 – 0.06	Dry
Cast Iron, Medium	90 – 150	0.005 – 0.10	0.003 – 0.06	Dry
Cast Iron, Malleable	60 – 100	0.005 – 0.10	0.003 – 0.06	Dry
Brass	120 – 250	0.005 – 0.10	0.003 – 0.06	Coolant
Bronze	60 – 120	0.005 – 0.08	0.003 – 0.06	Coolant
Copper/Copper Alloys	150 – 300	0.005 – 0.10	0.003 – 0.06	Coolant
Magnesium	250 min.	0.007 – 0.12	0.003 – 0.10	Coolant
Nickel Alloys	50 – 90	0.005 – 0.08	0.003 – 0.06	Coolant
Stainless Steels	40 – 140	0.003 – 0.06	0.003 – 0.05	Coolant
Steels, Low Carbon	60 – 160	0.005 – 0.08	0.003 – 0.06	Coolant
Steels, Medium Carbon	55 – 150	0.005 – 0.08	0.003 – 0.06	Coolant
Steels, High Tensile (35-40 Rc)	40 – 70	0.003 – 0.06	0.003 – 0.05	Coolant
Steels, High Tensile (45+ Rc)	35 – 50	0.003 – 0.06	0.003 – 0.05	Coolant
Tool Steels	35 – 100	0.003 – 0.06	0.003 – 0.05	Coolant
High Temperature Alloys	20 – 30	0.003 – 0.10	0.003 – 0.05	Coolant
Inconel 718/Rene 41/Inconel X 750	20 – 30	0.003 – 0.10	0.003 – 0.05	Coolant
Titanium, Soft	40 – 100	0.003 – 0.06	0.003 – 0.05	Coolant
Titanium, Hard	25 – 80	0.003 – 0.06	0.003 – 0.05	Coolant



super carbide tools

Thread Mills

Gewindefräser

Fresas de roscar

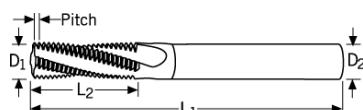
Fraise à fileter

Frese a filettare

螺纹铣刀 / 螺紋銑刀

MICRO 100®

Universal U-Star	Flutes 3 4	Coating AlTiN		
Material Soft	Material Medium	Material Hard		
Finishing <input checked="" type="radio"/>				
Tolerance				
D ₁ : h8 D ₂ : -0.0025 to -0.005				



3-FLUTE TOOL NUMBER	4-FLUTE TOOL NUMBER	MINIMUM THREAD	PITCH	D ₁	D ₂	L ₁	L ₂
TMM-045075X		M4.5	0.75	3.00	6	57	6
TMM-050080X		M5.0	0.80	3.00	6	57	8
TMM-060100X		M6.0	1.00	4.30	6	57	12
TMM-080075X		M8.0	0.75	6.00	6	57	16
TMM-080125X		M8.0	1.25	6.00	6	57	16
	TMM-100150X	M10.0	1.50	7.62	8	75	20
	TMM-120100X	M12.0	1.00	9.15	10	100	22
	TMM-120175X	M12.0	1.75	9.15	10	100	22
	TMM-140150X	M14.0	1.50	9.40	10	100	22
	TMM-160200X	M16.0	2.00	11.94	12	100	32
	TMM-180150X	M18.0	1.50	11.94	12	100	32
	TMM-200250X	M20.0	2.50	11.94	12	100	32
	TMM-240300X	M24.0	3.00	15.75	16	100	35

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

This chart represents speed and recommendations only. Actual cutting data may vary due to existing cutting conditions.

Cutting Speed $RPM = (\text{Cutting Speed} \times 1000) / (\text{Tool Diameter} \times 3.42)$
Feed Rate $\text{Feed} = \text{Feed per Tooth} \times \text{Number of Flutes} \times RPM \times \text{Internal Compensation}$
 $\text{Internal Compensation} = (\text{Thread Diameter} - \text{Cutting Diameter}) / \text{Thread Diameter}$

MATERIAL	CUTTING SPEED V m/min.	FEED PER TOOTH BY CUTTING M DIAMETER						
		M4 – M5	M6 – M7	M8 – M9	M10 – M11	M12 – M14	M15 – M20	M21 – M24
Aluminum	200 – 450	0.01 – 0.03	0.03 – 0.04	0.04 – 0.06	0.05 – 0.08	0.08 – 0.12	0.09 – 0.14	0.13 – 0.18
Aluminum Alloys under 6% Si	200 – 450	0.01 – 0.03	0.03 – 0.04	0.04 – 0.06	0.05 – 0.08	0.08 – 0.12	0.09 – 0.14	0.13 – 0.18
Aluminum Alloys over 6% Si	150 – 200	0.01 – 0.03	0.03 – 0.04	0.04 – 0.06	0.05 – 0.08	0.08 – 0.12	0.09 – 0.14	0.13 – 0.18
Cast Iron, Soft	120 – 220	0.01 – 0.02	0.02 – 0.03	0.02 – 0.04	0.04 – 0.05	0.05 – 0.08	0.05 – 0.10	0.08 – 0.13
Cast Iron, Medium	90 – 150	0.01 – 0.02	0.02 – 0.03	0.02 – 0.04	0.04 – 0.05	0.05 – 0.08	0.05 – 0.10	0.08 – 0.13
Cast Iron, Malleable	60 – 100	0.01 – 0.03	0.03 – 0.04	0.04 – 0.06	0.05 – 0.08	0.08 – 0.12	0.09 – 0.12	0.08 – 0.13
Brass	120 – 250	0.01 – 0.03	0.03 – 0.04	0.04 – 0.06	0.05 – 0.08	0.08 – 0.12	0.09 – 0.12	0.13 – 0.15
Bronze	60 – 120	0.01 – 0.03	0.03 – 0.04	0.04 – 0.06	0.05 – 0.08	0.08 – 0.12	0.09 – 0.12	0.13 – 0.15
Copper/Copper Alloys	150 – 300	0.01 – 0.03	0.03 – 0.04	0.04 – 0.06	0.05 – 0.08	0.08 – 0.12	0.09 – 0.12	0.13 – 0.15
Magnesium	250 min.	0.01 – 0.02	0.02 – 0.03	0.02 – 0.04	0.03 – 0.05	0.04 – 0.06	0.09 – 0.14	0.13 – 0.18
Nickel Alloys	50 – 90	0.01 – 0.02	0.02 – 0.03	0.03 – 0.04	0.04 – 0.05	0.04 – 0.08	0.05 – 0.07	0.06 – 0.08
Stainless Steels	40 – 140	0.01 – 0.02	0.02 – 0.03	0.03 – 0.04	0.04 – 0.05	0.05 – 0.09	0.05 – 0.09	0.08 – 0.10
Steels, Low Carbon	60 – 160	0.01 – 0.02	0.02 – 0.03	0.03 – 0.04	0.04 – 0.05	0.04 – 0.08	0.06 – 0.10	0.09 – 0.12
Steels, Medium Carbon	55 – 150	0.01 – 0.02	0.02 – 0.03	0.03 – 0.04	0.04 – 0.05	0.04 – 0.08	0.05 – 0.09	0.08 – 0.12
Steels, High Tensile (35-40 Rc)	40 – 70	0.01 – 0.02	0.02 – 0.03	0.03 – 0.04	0.04 – 0.05	0.04 – 0.08	0.05 – 0.09	0.07 – 0.10
Steels, High Tensile (45+ Rc)	35 – 50	0.01 – 0.02	0.01 – 0.03	0.02 – 0.04	0.03 – 0.06	0.04 – 0.07	0.05 – 0.08	0.06 – 0.09
Tool Steels	35 – 100	0.01 – 0.02	0.02 – 0.03	0.03 – 0.04	0.04 – 0.05	0.04 – 0.08	0.05 – 0.09	0.07 – 0.10
High Temperature Alloys	20 – 30	0.01 – 0.02	0.01 – 0.03	0.02 – 0.04	0.03 – 0.05	0.04 – 0.06	0.04 – 0.06	0.05 – 0.08
Inconel 718/Rene 41	20 – 30	0.01 – 0.02	0.01 – 0.03	0.02 – 0.04	0.03 – 0.05	0.04 – 0.06	0.04 – 0.06	0.05 – 0.08

Miniature Boring Tools

Miniatur Ausdrehstähle

Barras miniatura para tornear interiores

Mini-burins à aléser

Micro utensili per alesare

微型镗刀 / 微小搪刀

MICRO 100®

Universal
U-Star

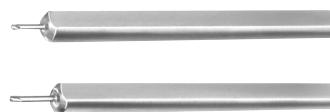
Coating
TiN

Material
Soft

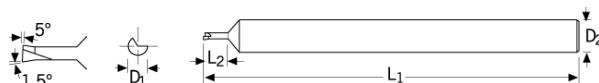
Material
Medium

Material
Hard

Finishing



Tolerance	
D ₁ : +0.0 -0.05	
L ₁ : ±1	D ₂ : -0.0025 to -0.008
L ₂ : +0.635 -0.0	



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
MBBM-003012	MBBM-003012G	0.3	3	38	1.25
MBBM-004015	MBBM-004015G	0.4	3	38	1.50
MBBM-005020	MBBM-005020G	0.5	3	38	2.00
MBBM-006025	MBBM-006025G	0.6	3	38	2.50
MBBM-007030	MBBM-007030G	0.7	3	38	3.00
MBBM-007040	MBBM-007040G	0.7	3	38	4.00
MBBM-008030	MBBM-008030G	0.8	3	38	3.00
MBBM-008040	MBBM-008040G	0.8	3	38	4.00
MBBM-009030	MBBM-009030G	0.9	3	38	3.00
MBBM-009040	MBBM-009040G	0.9	3	38	4.00
MBBM-009050	MBBM-009050G	0.9	3	38	5.00
MBBM-010030	MBBM-010030G	1.0	3	38	3.00
MBBM-010040	MBBM-010040G	1.0	3	38	4.00
MBBM-010050	MBBM-010050G	1.0	3	38	5.00

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

“N/C” Series - Boring Tools

“N/C” Serie - Ausdrehstähle

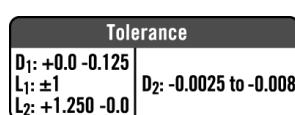
Serie “N/C” - Barras para tornear interiores

Série “N/C” - Burins à aléser

Serie “N/C” - Utensili per alesare

“N/C” 系列 - 镗刀 / “N/C” 系列 - 搪刀

MICRO 100®



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	L ₁	L ₂	P
BBM-040104	BBM-040104G	1	4	50	4	0.25
BBM-040106	BBM-040106G	1	4	50	6	0.25
BBM-040108	BBM-040108G	1	4	50	8	0.25
BBM-040204	BBM-040204G	2	4	50	4	0.50
BBM-040206	BBM-040206G	2	4	50	6	0.50
BBM-040208	BBM-040208G	2	4	50	8	0.50
BBM-040210	BBM-040210G	2	4	50	10	0.50
BBM-040213	BBM-040213G	2	4	50	13	0.50
BBM-040308	BBM-040308G	3	4	50	8	0.75
BBM-040310	BBM-040310G	3	4	50	10	0.75
BBM-040313	BBM-040313G	3	4	50	13	0.75
BBM-040315	BBM-040315G	3	4	50	15	0.75
BBM-040320	BBM-040320G	3	4	50	20	0.75
BBM-040408	BBM-040408G	4	4	50	8	1.00
BBM-040410	BBM-040410G	4	4	50	10	1.00
BBM-040415	BBM-040415G	4	4	50	15	1.00
BBM-040420	BBM-040420G	4	4	50	20	1.00
BBM-040425	BBM-040425G	4	4	50	25	1.00
BBM-060510	BBM-060510G	5	6	57	10	1.25
BBM-060515	BBM-060515G	5	6	57	15	1.25
BBM-060520	BBM-060520G	5	6	57	20	1.25
BBM-060525	BBM-060525G	5	6	57	25	1.25
BBM-060528	BBM-060528G	5	6	57	28	1.25
BBM-060610	BBM-060610G	6	6	57	10	1.50
BBM-060615	BBM-060615G	6	6	57	15	1.50
BBM-060620	BBM-060620G	6	6	57	20	1.50
BBM-060625	BBM-060625G	6	6	57	25	1.50
BBM-060630	BBM-060630G	6	6	57	30	1.50
BBM-060635	BBM-060635G	6	6	57	35	1.50
BBM-060638	BBM-060638G	6	6	57	38	1.50

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

“N/C” Series - Boring Tools

“N/C” Serie - Ausdrehstähle

Serie “N/C” - Barras para tornear interiores

Série “N/C” - Burins à aléser

Serie “N/C” - Utensili per alesare

“N/C” 系列 - 镗刀 / “N/C” 系列 - 捻刀

MICRO 100®

STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	L ₁	L ₂	P
BBM-080715	BBM-080715G	7	8	63	15	1.75
BBM-080720	BBM-080720G	7	8	63	20	1.75
BBM-080725	BBM-080725G	7	8	63	25	1.75
BBM-080732	BBM-080732G	7	8	63	32	1.75
BBM-070738	BBM-070738G	7	8	63	38	1.75
BBM-080746	BBM-080746G	7	8	63	46	1.75
BBM-080813	BBM-080813G	8	8	63	13	2.00
BBM-080820	BBM-080820G	8	8	63	20	2.00
BBM-080825	BBM-080825G	8	8	63	25	2.00
BBM-080832	BBM-080832G	8	8	63	32	2.00
BBM-080838	BBM-080838G	8	8	63	38	2.00
BBM-080846	BBM-080846G	8	8	63	46	2.00
BBM-080850	BBM-080850G	8	8	63	50	2.00
BBM-100913	BBM-100913G	9	10	72	13	2.25
BBM-100920	BBM-100920G	9	10	72	20	2.25
BBM-100925	BBM-100925G	9	10	72	25	2.25
BBM-100932	BBM-100932G	9	10	72	32	2.25
BBM-100938	BBM-100938G	9	10	72	38	2.25
BBM-100946	BBM-100946G	9	10	72	46	2.25
BBM-100950	BBM-100950G	9	10	72	50	2.25
BBM-101015	BBM-101015G	10	10	72	15	2.50
BBM-101020	BBM-101020G	10	10	72	20	2.50
BBM-101025	BBM-101025G	10	10	72	25	2.50
BBM-101032	BBM-101032G	10	10	72	32	2.50
BBM-101038	BBM-101038G	10	10	72	38	2.50
BBM-101046	BBM-101046G	10	10	72	46	2.50
BBM-101050	BBM-101050G	10	10	72	50	2.50
BBM-121115	BBM-121115G	11	12	83	15	2.75
BBM-121125	BBM-121125G	11	12	83	25	2.75
BBM-121138	BBM-121138G	11	12	83	38	2.75
BBM-121150	BBM-121150G	11	12	83	50	2.75
BBM-121220	BBM-121220G	12	12	83	20	3.00
BBM-121232	BBM-121232G	12	12	83	32	3.00
BBM-121246	BBM-121246G	12	12	83	46	3.00
BBM-121260	BBM-121260G	12	12	83	50	3.00

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Helical Back Rake Boring Tools

Ausdrehstähle mit Spiral Hinterschliff

Barras Helicoidales para tornear interiores

Burins à aléser avec dégagement helicoïdal

Utensili per alesare con angolo di spoglia negativo

螺旋后角镗刀系列 / 螺旋後斜搪刀

MICRO 100®

Universal
U-Star

Coating
TiN

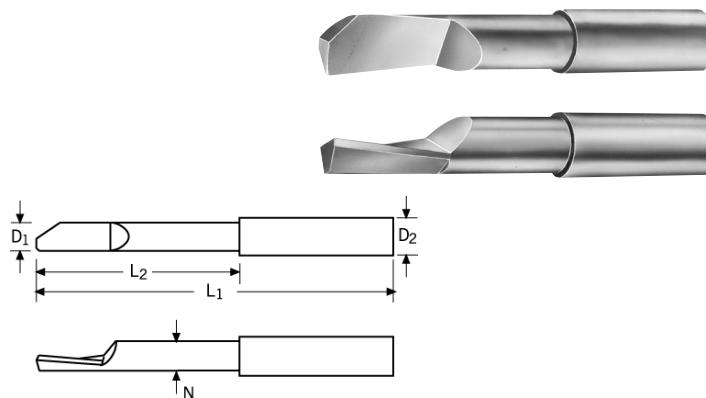
Material
Soft

Material
Medium

Material
Hard

Finishing

Tolerance
D₁: +0.025 -0.0
L₁: ±1
L₂: +0.750 -0.0
D₂: -0.0025 to -0.008



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	L ₁	L ₂	N
HBM-005002	HBM-005002G	0.50	3	38	2	0.40
HBM-006002	HBM-006002G	0.60	3	38	2	0.50
HBM-007003	HBM-007003G	0.70	3	38	3	0.60
HBM-008004	HBM-008004G	0.80	3	38	4	0.70
HBM-009005	HBM-009005G	0.90	3	38	5	0.75
HBM-010006	HBM-010006G	1.00	3	38	6	0.85
HBM-012508	HBM-012508G	1.25	3	38	8	1.10
HBM-015009	HBM-015009G	1.50	3	38	9	1.25
HBM-017510	HBM-017510G	1.75	3	38	10	1.50
HBM-020012	HBM-020012G	2.00	3	38	12	1.70
HBM-022512	HBM-022512G	2.25	3	38	12	1.90
HBM-025014	HBM-025014G	2.50	3	38	14	2.20
HBM-027514	HBM-027514G	2.75	3	38	14	2.40
HBM-030016	HBM-030016G	3.00	4	50	16	2.50
HBM-035020	HBM-035020G	3.50	4	50	20	3.00
HBM-040025	HBM-040025G	4.00	6	57	25	3.25
HBM-045030	HBM-045030G	4.50	6	57	30	3.75
HBM-050035	HBM-050035G	5.00	6	57	35	4.25
HBM-055035	HBM-055035G	5.50	6	57	35	4.75
HBM-060045	HBM-060045G	6.00	8	63	45	5.25
HBM-070045	HBM-070045G	7.00	8	63	45	5.75

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Internal Threading Tools - 60°

Innengewindestähle - 60°

Herramientas para Roscar Interiores - 60°

Burins à fileter intérieur - 60°

Utensili a Filettare per Interni - 60°

“60°” 度内螺纹刀 / 内螺紋刀 - 60°

MICRO 100®

Universal
U-Star

Coating
TiN

Material
Soft

Material
Medium

Material
Hard

Finishing
○



Tolerance	
D ₁ : +0.0 -0.125	D ₂ : -0.0025 to -0.008
L ₁ : ±1	
L ₂ : +1.250 -0.0	



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	L ₁	L ₂	P	Y
ITM-064613	ITM-064613G	4.6	6	57	13	1.2	0.71
ITM-064625	ITM-064625G	4.6	6	57	25	1.2	0.71
ITM-065115	ITM-065115G	5.1	6	57	15	1.3	0.76
ITM-065128	ITM-065128G	5.1	6	57	28	1.3	0.76
ITM-085815	ITM-085815G	5.8	8	63	15	1.5	0.86
ITM-085825	ITM-085825G	5.8	8	63	25	1.5	0.86
ITM-085838	ITM-085838G	5.8	8	63	38	1.5	0.86
ITM-087420	ITM-087420G	7.4	8	63	20	1.9	1.09
ITM-087432	ITM-087432G	7.4	8	63	32	1.9	1.09
ITM-087446	ITM-087446G	7.4	8	63	46	1.9	1.09
ITM-109620	ITM-109620G	9.6	10	72	20	2.4	1.40
ITM-109632	ITM-109632G	9.6	10	72	32	2.4	1.40
ITM-109646	ITM-109646G	9.6	10	72	46	2.4	1.40
ITM-121120	ITM-121120G	11.4	12	83	20	3.2	1.85
ITM-121132	ITM-121132G	11.4	12	83	32	3.2	1.85
ITM-121150	ITM-121150G	11.4	12	83	50	3.2	1.85

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Retaining Ring Groove Tools

Inneneinsteckstähle für Sicherungsringe

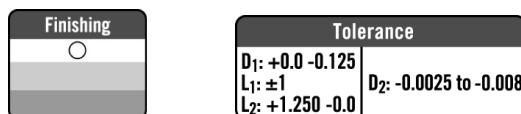
Herramientas de ranurar para anillos de retención

Burins à rainure intérieure

Utensili per scanalature e gole

扣环割槽刀 / 扣環溝槽刀

MICRO 100®



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	L ₁	L ₂	P	W
RRM-030-10	RRM-030-10G	3	4	50	10	0.60	0.30
RRM-030-15	RRM-030-15G	3	4	50	15	0.60	0.30
RRM-040-10	RRM-040-10G	4	4	50	10	0.80	0.40
RRM-040-15	RRM-040-15G	4	4	50	15	0.80	0.40
RRM-040-20	RRM-040-20G	4	4	50	20	0.80	0.40
RRM-040-25	RRM-040-25G	4	4	50	25	0.80	0.40
RRM-050-10	RRM-050-10G	6	6	57	10	1.25	0.50
RRM-050-15	RRM-050-15G	6	6	57	15	1.25	0.50
RRM-050-20	RRM-050-20G	6	6	57	20	1.25	0.50
RRM-050-25	RRM-050-25G	6	6	57	25	1.25	0.50
RRM-070-10	RRM-070-10G	6	6	57	10	1.25	0.70
RRM-070-15	RRM-070-15G	6	6	57	15	1.25	0.70
RRM-070-20	RRM-070-20G	6	6	57	20	1.25	0.70
RRM-070-25	RRM-070-25G	6	6	57	25	1.25	0.70
RRM-080-10	RRM-080-10G	6	6	57	10	1.25	0.80
RRM-080-15	RRM-080-15G	6	6	57	15	1.25	0.80
RRM-080-20	RRM-080-20G	6	6	57	20	1.25	0.80
RRM-080-25	RRM-080-25G	6	6	57	25	1.25	0.80
RRM-090-10	RRM-090-10G	8	8	63	10	2.50	0.90
RRM-090-20	RRM-090-20G	8	8	63	20	2.50	0.90
RRM-090-30	RRM-090-30G	8	8	63	30	2.50	0.90
RRM-090-40	RRM-090-40G	8	8	63	40	2.50	0.90
RRM-100-10	RRM-100-10G	8	8	63	10	2.50	1.00
RRM-100-20	RRM-100-20G	8	8	63	20	2.50	1.00
RRM-100-30	RRM-100-30G	8	8	63	30	2.50	1.00
RRM-100-40	RRM-100-40G	8	8	63	40	2.50	1.00
RRM-110-10	RRM-110-10G	8	8	63	10	2.50	1.10
RRM-110-20	RRM-110-20G	8	8	63	20	2.50	1.10
RRM-110-30	RRM-110-30G	8	8	63	30	2.50	1.10
RRM-110-40	RRM-110-40G	8	8	63	40	2.50	1.10

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Retaining Ring Groove Tools

Inneneinsteckstähle für Sicherungsringe

Herramientas de ranurar para anillos de retención

Burins à rainure intérieure

Utensili per scanalature e gole

扣环割槽刀 / 扣環溝槽刀



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	L ₁	L ₂	P	W
RRM-120-10	RRM-120-10G	10	10	72	10	2.75	1.20
RRM-120-20	RRM-120-20G	10	10	72	20	2.75	1.20
RRM-120-30	RRM-120-30G	10	10	72	30	2.75	1.20
RRM-120-40	RRM-120-40G	10	10	72	40	2.75	1.20
RRM-130-10	RRM-130-10G	10	10	72	10	2.75	1.30
RRM-130-20	RRM-130-20G	10	10	72	20	2.75	1.30
RRM-130-30	RRM-130-30G	10	10	72	30	2.75	1.30
RRM-130-40	RRM-130-40G	10	10	72	40	2.75	1.30
RRM-160-10	RRM-160-10G	10	10	72	10	2.75	1.60
RRM-160-20	RRM-160-20G	10	10	72	20	2.75	1.60
RRM-160-30	RRM-160-30G	10	10	72	30	2.75	1.60
RRM-160-40	RRM-160-40G	10	10	72	40	2.75	1.60
RRM-180-10	RRM-180-10G	10	10	72	10	2.75	1.80
RRM-180-20	RRM-180-20G	10	10	72	20	2.75	1.80
RRM-180-30	RRM-180-30G	10	10	72	30	2.75	1.80
RRM-180-40	RRM-180-40G	10	10	72	40	2.75	1.80
RRM-200-10	RRM-200-10G	10	10	72	10	2.75	2.00
RRM-200-20	RRM-200-20G	10	10	72	20	2.75	2.00
RRM-200-30	RRM-200-30G	10	10	72	30	2.75	2.00
RRM-200-40	RRM-200-40G	10	10	72	40	2.75	2.00
RRM-300-20	RRM-300-20G	12	12	83	20	3.75	3.00
RRM-300-30	RRM-300-30G	12	12	83	30	3.75	3.00
RRM-300-40	RRM-300-40G	12	12	83	40	3.75	3.00
RRM-300-50	RRM-300-50G	12	12	83	50	3.75	3.00
RRM-400-20	RRM-400-20G	12	12	83	20	3.75	4.00
RRM-400-30	RRM-400-30G	12	12	83	30	3.75	4.00
RRM-400-40	RRM-400-40G	12	12	83	40	3.75	4.00
RRM-400-50	RRM-400-50G	12	12	83	50	3.75	4.00
RRM-500-20	RRM-500-20G	12	12	83	20	3.75	5.00
RRM-500-30	RRM-500-30G	12	12	83	30	3.75	5.00
RRM-500-40	RRM-500-40G	12	12	83	40	3.75	5.00
RRM-500-50	RRM-500-50G	12	12	83	50	3.75	5.00
RRM-600-20	RRM-600-20G	12	12	83	20	3.75	6.00
RRM-600-30	RRM-600-30G	12	12	83	30	3.75	6.00
RRM-600-40	RRM-600-40G	12	12	83	40	3.75	6.00
RRM-600-50	RRM-600-50G	12	12	83	50	3.75	6.00



super carbide tools

This chart includes recommended application values only. Recommended speed and feed rates may be increased up to 25% with TiN coated boring tools. The approximate feed rate depends on factors like tool size, overhang, cutting material, and surface requirements.

MATERIAL	CUTTING SPEED Meter per Minute V m/min.	CUTTING SPEED Feed per Minute V=f/min.	FEED RATE mm per Revolution mm/r	FEED RATE Inch per Revolution inch/r
Aluminum 6061	610	2000	0.025 – 0.125	0.001 – 0.005
Aluminum 7075	610	2000	0.025 – 0.125	0.001 – 0.005
Cast Iron, Soft	140 – 150	470 – 480	0.025 – 0.125	0.001 – 0.005
Cast Iron, Medium	80 – 120	300 – 400	0.025 – 0.125	0.001 – 0.005
Cast Iron, Malleable	110 – 140	350 – 400	0.025 – 0.125	0.001 – 0.005
Brass	230 – 280	750 – 900	0.025 – 0.125	0.001 – 0.005
Bronze	230 – 280	750 – 900	0.025 – 0.125	0.001 – 0.005
Copper	230 – 280	750 – 900	0.025 – 0.125	0.001 – 0.005
Magnesium	610	2000	0.025 – 0.125	0.001 – 0.005
Nickel Alloys, Nickel 200	90	300	0.025 – 0.125	0.001 – 0.005
Monel	60 – 65	200	0.025 – 0.125	0.001 – 0.005
Stainless Steels 316/316L	62	200	0.025 – 0.125	0.001 – 0.005
Stainless Steel 304	80	250	0.025 – 0.125	0.001 – 0.005
Stainless Steel 17-4 PH	85	275	0.025 – 0.125	0.001 – 0.005
Stainless Steel 15-5 PH	80	250	0.025 – 0.125	0.001 – 0.005
Steels, Low Carbon	115 – 150	350 – 475	0.025 – 0.125	0.001 – 0.005
Steels, Medium Carbon	100 – 130	300 – 400	0.025 – 0.125	0.001 – 0.005
Steels, High Tensile (35-40 Rc)	80 – 96	250 – 300	0.025 – 0.125	0.001 – 0.005
Steels, High Tensile (45+ Rc)	40	125	0.025 – 0.125	0.001 – 0.005
Tool Steels D-2	50 – 65	150 – 200	0.025 – 0.125	0.001 – 0.005
Mold Steel P-20	115 – 145	350 – 450	0.025 – 0.125	0.001 – 0.005
High Temperature Alloys	50 – 65	150 – 200	0.025 – 0.125	0.001 – 0.005
Titanium	65 – 80	150 – 200	0.025 – 0.125	0.001 – 0.005
Molybdenum	65 – 80	200 – 250	0.025 – 0.125	0.001 – 0.005
Inconel	25	70	0.025 – 0.125	0.001 – 0.005
Rene 41	20	60	0.025 – 0.125	0.001 – 0.005
Waspalloy	25	70	0.025 – 0.125	0.001 – 0.005

Tool Holders

Werkzeughalter

Portaherramientas

Porte - outils

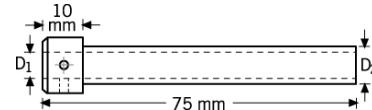
Porta utensile

刀套 / 刀具夾持桿

MICRO 100®

TOOL NUMBER	D ₁	D ₂
THM-312	3	12
THM-412	4	12
THM-612	6	12
THM-812	8	12
THM-316	3	16
THM-416	4	16
THM-616	6	16
THM-816	8	16
THM-1016	10	16
THM1216	12	16
THM-320	3	20
THM-420	4	20
THM-620	6	20
THM-820	8	20
THM-1020	10	20
THM-1220	12	20

Tolerance
T.I.R. 0.05



Combined Drills & Countersinks

Zentrierbohrer

Broca combinada y broca de centro

Mèches à centrer

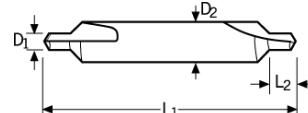
Punte da centro

中心钻 / 沉頭鑽頭

TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
DCM-005	0.50	3.15	35.0	0.8
DCM-008	0.80	3.15	35.0	1.1
DCM-010	1.00	3.15	35.0	1.3
DCM-013	1.25	3.15	35.0	1.6
DCM-016	1.60	4.00	35.5	2.0
DCM-020	2.00	5.00	40.0	2.5
DCM-025	2.50	6.30	45.0	3.1
DCM-032	3.15	8.00	50.0	3.9
DCM-040	4.00	10.00	56.0	5.0
DCM-050	5.00	12.50	63.0	6.3

**Universal
U-Star**

Tolerance
D₁: +0.08 -0.0 | D₂: -0.0025 to -0.008



MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Split End Engraving Tools, Single End - 30° / 60° / 90°

Gravierstichel, einseitig - 30° / 60° / 90°

Herramientas para grabado, una punta - 30° / 60° / 90°

Fraises à graver, une coupe - 30° / 60° / 90°

Utensili per incisione a punta singola - 30° / 60° / 90°

单刃锥雕刻刀-单头 - 30°/60°/90° / 單刃雕刻刀-單頭 - 30°/60°/90°

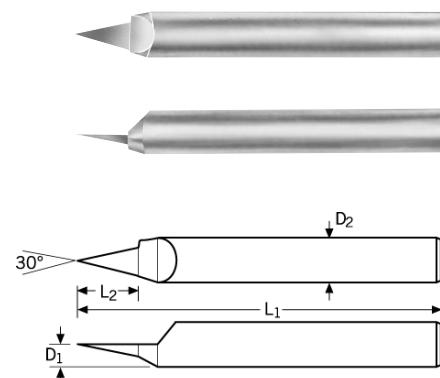
MICRO 100®

Universal U-Star	Coating AITIN	Material Soft	Material Medium	Material Hard
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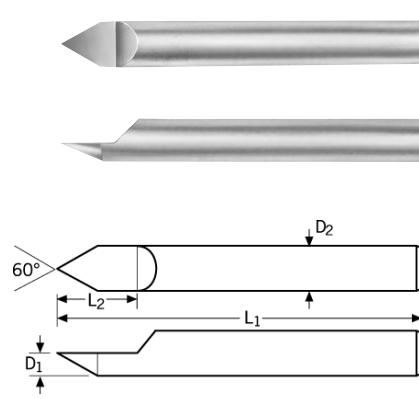


Tolerance
D₁: +0.025 -0.0 | D₂: -0.0025 to -0.008

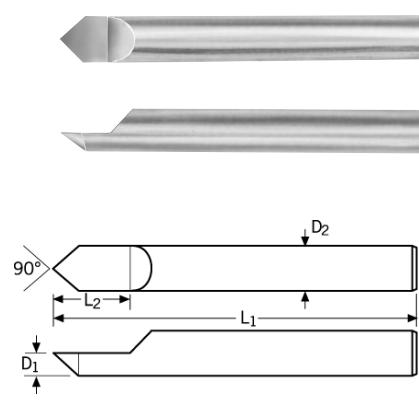
STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
RTCM-020-1	RTCM-020-1X	1.0	2	38	5
RTCM-030-1	RTCM-030-1X	1.5	3	38	7
RTCM-040-1	RTCM-040-1X	2.0	4	50	10
RTCM-050-1	RTCM-050-1X	2.5	5	50	12
RTCM-060-1	RTCM-060-1X	3.0	6	57	12
RTCM-080-1	RTCM-080-1X	4.0	8	63	12
RTCM-100-1	RTCM-100-1X	5.0	10	72	12
RTCM-120-1	RTCM-120-1X	6.0	12	83	14



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
RSCM-020-1	RSCM-020-1X	1.0	2	38	4
RSCM-030-1	RSCM-030-1X	1.5	3	38	5
RSCM-040-1	RSCM-040-1X	2.0	4	50	6
RSCM-050-1	RSCM-050-1X	2.5	5	50	7
RSCM-060-1	RSCM-060-1X	3.0	6	57	8
RSCM-080-1	RSCM-080-1X	4.0	8	63	10
RSCM-100-1	RSCM-100-1X	5.0	10	72	12
RSCM-120-1	RSCM-120-1X	6.0	12	83	14



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
RNCM-020-1	RNCM-020-1X	1.0	2	38	4
RNCM-030-1	RNCM-030-1X	1.5	3	38	5
RNCM-040-1	RNCM-040-1X	2.0	4	50	6
RNCM-050-1	RNCM-050-1X	2.5	5	50	7
RNCM-060-1	RNCM-060-1X	3.0	6	57	8
RNCM-080-1	RNCM-080-1X	4.0	8	63	10
RNCM-100-1	RNCM-100-1X	5.0	10	72	12
RNCM-120-1	RNCM-120-1X	6.0	12	83	14



MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Split End Engraving Tools, Double End - 30° / 60° / 90°

Gravierstichel, beidseitig - 30° / 60° / 90°

Herramientas para grabado, doble punta - 30° / 60° / 90°

Fraises à graver, double coupe - 30° / 60° / 90°

Utensili per incisione con punta doppia - 30° / 60° / 90°

单刃锥雕刻刀-双头 - 30°/60°/90° / 單刃雕刻刀-雙頭 - 30°/ 60°/90°

MICRO 100®

Universal
U-Star

Coating
AlTiN

Material
Soft

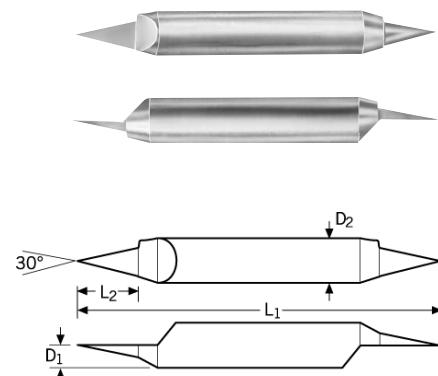
Material
Medium

Material
Hard

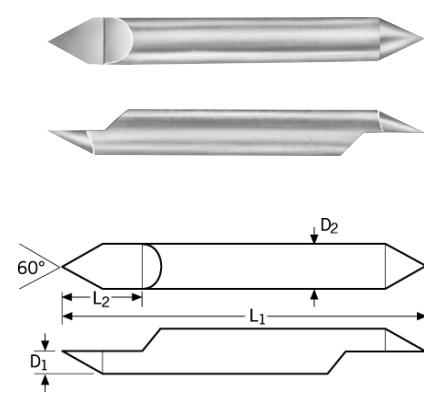
Finishing
○

Tolerance
D₁: +0.025 -0.0 | D₂: -0.0025 to -0.008

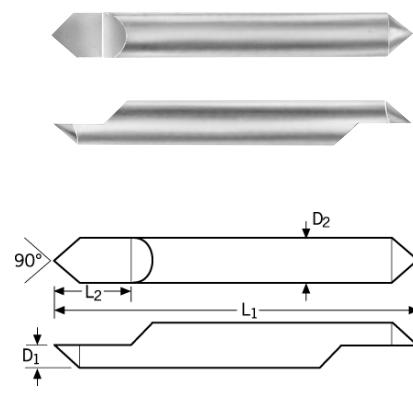
STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
RTCM-020-2	RTCM-020-2X	1.0	2	38	5
RTCM-030-2	RTCM-030-2X	1.5	3	38	7
RTCM-040-2	RTCM-040-2X	2.0	4	50	10
RTCM-050-2	RTCM-050-2X	2.5	5	50	12
RTCM-060-2	RTCM-060-2X	3.0	6	57	12
RTCM-080-2	RTCM-080-2X	4.0	8	63	12
RTCM-100-2	RTCM-100-2X	5.0	10	72	12
RTCM-120-2	RTCM-120-2X	6.0	12	83	14



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
RSCM-020-2	RSCM-020-2X	1.0	2	38	4
RSCM-030-2	RSCM-030-2X	1.5	3	38	5
RSCM-040-2	RSCM-040-2X	2.0	4	50	6
RSCM-050-2	RSCM-050-2X	2.5	5	50	7
RSCM-060-2	RSCM-060-2X	3.0	6	57	8
RSCM-080-2	RSCM-080-2X	4.0	8	63	10
RSCM-100-2	RSCM-100-2X	5.0	10	72	12
RSCM-120-2	RSCM-120-2X	6.0	12	83	14



STANDARD TOOL NUMBER	COATED TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
RNCM-020-2	RNCM-020-2X	1.0	2	38	4
RNCM-030-2	RNCM-030-2X	1.5	3	38	5
RNCM-040-2	RNCM-040-2X	2.0	4	50	6
RNCM-050-2	RNCM-050-2X	2.5	5	50	7
RNCM-060-2	RNCM-060-2X	3.0	6	57	8
RNCM-080-2	RNCM-080-2X	4.0	8	63	10
RNCM-100-2	RNCM-100-2X	5.0	10	72	12
RNCM-120-2	RNCM-120-2X	6.0	12	83	14



MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Split End Radius Tools, Single End / Double End

Radiusstichel, einseitig / beidseitig

Herramientas de radios, una punta / doble punta

Burins à rayon, simple / double

Utensili per incisione semisferici a punta singola / doppia

圆弧角单刃锥雕刻刀-单头/双头 / 雕刻圆棒-单头/双头

MICRO 100®

Universal
U-Star

Material
Soft

Material
Medium

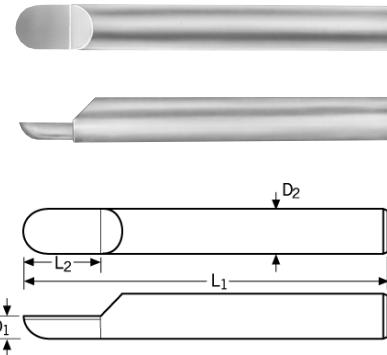
Material
Hard

Finishing

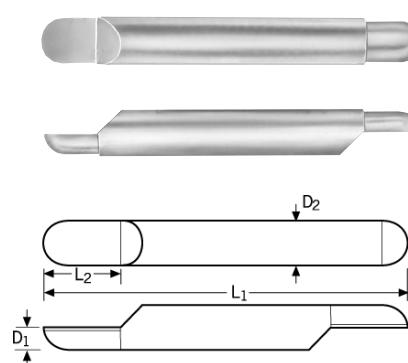
Tolerance

D₁: +0.025 -0.0 | D₂: -0.0025 to -0.008

TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
RSFM-020-1	1.0	2	38	4
RSFM-030-1	1.5	3	38	5
RSFM-040-1	2.0	4	50	6
RSFM-050-1	2.5	5	50	7
RSFM-060-1	3.0	6	57	8
RSFM-080-1	4.0	8	63	10
RSFM-100-1	5.0	10	72	12
RSFM-120-1	6.0	12	83	14



TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
RSFM-020-2	1.0	2	38	4
RSFM-030-2	1.5	3	38	5
RSFM-040-2	2.0	4	50	6
RSFM-050-2	2.5	5	50	7
RSFM-060-2	3.0	6	57	8
RSFM-080-2	4.0	8	63	10
RSFM-100-2	5.0	10	72	12
RSFM-120-2	6.0	12	83	14



MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Split End Blanks, Single End / Double End

Rechteck-Stichel, einseitig / beidseitig

Barras de punta cortada, una punta / doble punta

Burins à fond plat, simple / double

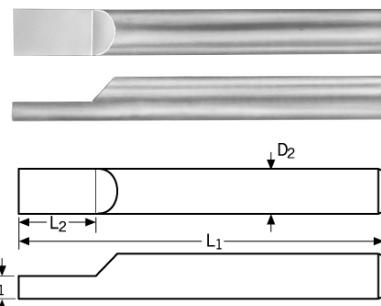
Bulini tagliati, punta singola / doppia

单刃锥雕刻刀棒料---单头/双头 / 剖半圆棒-单头/双头

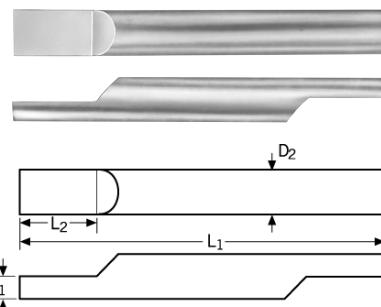
MICRO 100®

TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
RSM-020-1	1.0	2	38	4
RSM-030-1	1.5	3	38	5
RSM-040-1	2.0	4	50	6
RSM-050-1	2.5	5	50	7
RSM-060-1	3.0	6	57	8
RSM-080-1	4.0	8	63	10
RSM-100-1	5.0	10	72	12
RSM-120-1	6.0	12	83	14

Tolerance
D₁: +0.025 -0.0 | D₂: -0.0025 to -0.008



TOOL NUMBER	D ₁	D ₂	L ₁	L ₂
RSM-020-2	1.0	2	38	4
RSM-030-2	1.5	3	38	5
RSM-040-2	2.0	4	50	6
RSM-050-2	2.5	5	50	7
RSM-060-2	3.0	6	57	8
RSM-080-2	4.0	8	63	10
RSM-100-2	5.0	10	72	12
RSM-120-2	6.0	12	83	14



Half Round Blanks

Halbrunde Stäbe

Barras semicirculares

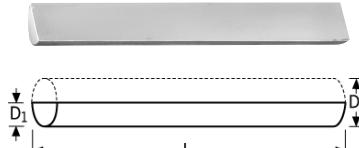
Barreaux semi-ronds

Cilindri semicircolari

半圆棒料 / 全剖半圆棒

TOOL NUMBER	D ₁	D ₂	L
HRM-020-38	1.0	2	38
HRM-030-38	1.5	3	38
HRM-040-50	2.0	4	50
HRM-050-50	2.5	5	50
HRM-060-57	3.0	6	57
HRM-080-63	4.0	8	63
HRM-100-72	5.0	10	72
HRM-120-83	6.0	12	83

Tolerance
D₁: +0.025 -0.0 | D₂: -0.0025 to -0.008



MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Round Blanks

Rundstäbe

Barras redondas

Barres ronde

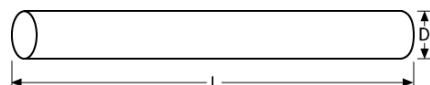
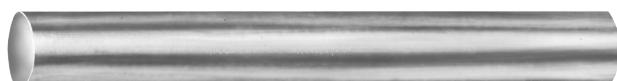
Cilindri rettificati

超级硬质合金圆棒料 / 超微粒钨钢圆棒

MICRO 100®

Tolerance

D: -0.0025 to -0.008



TOOL NUMBER	D	L	TOOL NUMBER	D	L
SRM-010-030	1.0	30	SRM-080-063	8.0	63
SRM-010-310	1.0	310	SRM-080-100	8.0	100
SRM-015-100	1.5	100	SRM-080-310	8.0	310
SRM-020-038	2.0	38	SRM-090-100	9.0	100
SRM-020-100	2.0	100	SRM-090-310	9.0	310
SRM-020-310	2.0	310	SRM-100-072	10.0	72
SRM-025-100	2.5	100	SRM-100-100	10.0	100
SRM-030-038	3.0	38	SRM-100-310	10.0	310
SRM-030-100	3.0	100	SRM-110-310	11.0	310
SRM-030-310	3.0	310	SRM-120-083	12.0	83
SRM-035-100	3.5	100	SRM-120-100	12.0	100
SRM-040-050	4.0	50	SRM-120-310	12.0	310
SRM-040-100	4.0	100	SRM-130-310	13.0	310
SRM-040-310	4.0	310	SRM-140-100	14.0	100
SRM-045-100	4.5	100	SRM-140-310	14.0	310
SRM-050-050	5.0	50	SRM-150-310	15.0	310
SRM-050-100	5.0	100	SRM-160-100	16.0	100
SRM-050-310	5.0	310	SRM-160-310	16.0	310
SRM-055-100	5.5	100	SRM-170-310	17.0	310
SRM-060-057	6.0	57	SRM-180-100	18.0	100
SRM-060-100	6.0	100	SRM-180-310	18.0	310
SRM-060-310	6.0	310	SRM-190-310	19.0	310
SRM-065-100	6.5	100	SRM-200-100	20.0	100
SRM-070-100	7.0	100	SRM-200-310	20.0	310
SRM-070-310	7.0	310	SRM-250-310	25.0	310

MICRO 100®

super carbide tools

ABREMAC
PODER PARA TRANSFORMAR

Coatings

Beschichtungen

Recubrimientos

Revêtements

Rivestimenti

涂层 / 鍍層



COATING	COATING SYMBOL	AVAILABILITY	HARDNESS (HV)	OPERATING TEMPERATURE (Celsius)
Alox	A		3700	up to 850°
Alu Speed	S		2800	up to 700°
AlTiN	X	stock	4500 ±500	up to 800°
Multilayer	M		4825 ±100	up to 980°
Rainbow	L		4825 ±100	up to 980°
TiAIN	N		2600 ±400	up to 800°
TiCN	T		4000 ±400	up to 400°
TiN	G	stock	2900 ±200	up to 500°

All coatings are available and can be ordered by stating the coating symbol after tool number.

Tolerances

Toleranzen

Tolerancias

Tolérances

Tolleranze

公差 / 公差

DIAMETER	<i>h6</i>	<i>h8</i>	<i>h9</i>	<i>h10</i>
1 – 3 mm	+0.000 – 0.006 mm	+0.000 – 0.014 mm	+0.000 – 0.025 mm	+0.000 – 0.040 mm
> 3 – 6 mm	+0.000 – 0.008 mm	+0.000 – 0.018 mm	+0.000 – 0.030 mm	+0.000 – 0.048 mm
> 6 – 10 mm	+0.000 – 0.009 mm	+0.000 – 0.022 mm	+0.000 – 0.036 mm	+0.000 – 0.058 mm
> 10 – 18 mm	+0.000 – 0.011 mm	+0.000 – 0.027 mm	+0.000 – 0.043 mm	+0.000 – 0.070 mm
> 18 – 20 mm	+0.000 – 0.013 mm	+0.000 – 0.033 mm	+0.000 – 0.052 mm	+0.000 – 0.084 mm
25 mm	+0.000 – 0.016 mm	+0.000 – 0.033 mm	+0.000 – 0.062 mm	+0.000 – 0.100 mm

TOOL PREFIX INDEX

TOOL PREFIX	PAGE	TOOL PREFIX	PAGE
AECM	14	ITM	53
AELM	31		
AEMM	13	MMBM	49
ALMM	34	MEMM	24
AMRM	7	MMBM	37
ARMM	22	MMRM	8,9
ASMM	23		
BBM	50,51	RMEM	6
BELM	44	RNCM	58,59
BEMM	40	RNMM	18
BLRM	45	RNRM	25
BMHM	42	RRM	54,55
BMRM	36	RSCM	58,59
BMSM	35	RSFM	60
DCM	57	RSM	61
EMHM	17	RTCM	58,59
EMSM	15		
GELM	32	SDHM	30
GEMM	12	SFAM	19
GLRM	33	SFBM	38,39
HBM	52	SFPM	20,21
HMBM	43	SFRM	10,11
HMCM	29	SRM	62
HMRM	28		
HMSM	27	TEBM	41
HMUM	26	TEM	16
HMRM	61	THM	57
		TMM	47

SOLUCIONES

Ofrecemos una **amplia gama de maquinaria CNC, herramientas de corte, medición y sujeción, así como accesorios, abrasivos y suministros especializados en la industria metal-mecánica.**

COBERTURA Y EXPANSIÓN



Presencia que da confianza

OCCIDENTE	BAJÍO	NORTE
★ Colima	★ Aguascalientes	★ Nuevo León
★ Jalisco	★ Guanajuato	★ Sonora
★ Michoacán	★ San Luis Potosí	★ Otras regiones con cobertura
★ Nayarit	★ Querétaro	

NUESTROS CLIENTES

Una trayectoria respaldada por los mejores

Alianzas de largo plazo traducidas en sinergia de negocios



VENTAJAS ÚNICAS

contamos con distribuciones exclusivas que pondrán a su taller o empresa, sin importar su tamaño, al frente del mercado gracias a soluciones de alto valor.



Contáctanos:



Calle 8 #2548, C.P. 44940, Zona Industrial, Guadalajara, Jal.



Tel. +52 1 (33) 3650 2040



ventas@abremaq.com

www.abremaq.com

Síguenos:

