

Series 143M

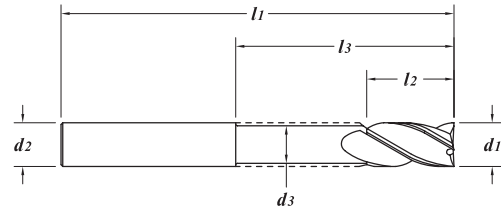
3,000mm - 9,525mm  
(.1181" - .3750")



TOLERANCES

d1	+0,000 -0,025mm (+0.000" - .001")
d2	h6

- HSAL - Square End - ALUMASTAR Coated
- HSAL - Ohne Eckenradius - ALUMASTAR-Beschichtet
- HSAL - Extremo Sin Radio - Recubrimiento de ALUMASTAR
- HSAL - Extrémité Carré - Revêtement ALUMASTAR
- HSAL - Piatte - Rivestimento in ALUMASTAR
- HSAL - 平头 - ALUMASTAR 涂层



Solid submicron grain carbide end mill - center cutting  
Specific coating engineered to repel aluminum  
Engineered to run at 750-2500 SFM (225-750 M/Min.)  
**For high speed machining of aluminum**  
High velocity - high metal removal rate (for spindles 5,000-20,000 RPM)  
Need to use properly balanced holders  
Holds perpendicularity  
Flats can be added within 48 hours



Hochleistungs- Vollhartmetallfräser aus Feinkornhartmetall - Zentrumschnitt  
Spezielle Beschichtung entwickelt zu abstoßen Aluminium  
Entwickelt für Vorschübe von 225 - 750 M/Min. (750 - 2500 SFM)  
**Für die Hochgeschwindigkeitsbearbeitung von Aluminium**  
Hohe Geschwindigkeit - Hohe Abtragungsraten (Für Spindeldrehzahlen 5.000-20.000 min<sup>-1</sup>)  
Benutzen Sie korrekt gewichtete Spannmittel  
Hilft die Perpendicularität zu halten  
Kann mit einer Fläche innerhalb von 48 Stunden werden



Fresa de submicrograno sólido carburo de alto rendimiento - corte centrado  
Recubrimiento concebido específicamente para repeler el aluminio  
Diseñado para trabajar a 225-750 M/Min. (750-2500 SFM)  
**Para el mecanizado a alta velocidad de aluminio**  
Alta velocidad - alto índice de desalajo de viruta (Para husillos de 5.000-20.000 r.p.m.)  
Use portaherramientas adecuadaente equilibrados  
Ayuda a mantener la perpendicularidad  
Puede ser modificado con un plano en 48 horas



Fraises carbure submicrograin - coupe au centre  
Revêtement special conçu pour l'aluminium  
Developpement pour usiner a 225-750 M/Min. (750-2500 SFM)  
**Pour haute vitesse usinage pour l'aluminium**  
Haute velocite et haut volume copeaux (Pour les mandrins 5,000-20,000 RPM)  
Utilisation avec porte outils équilibrés  
Aide a tenir la perpendicularite  
Peut etre modifier avec un surface plat sous un delai de 48 heures



Fresa sub-micrograno metallo duro - taglio al centro  
Rivestimento specifico costruito per respingere alluminio  
Costruito per alta velocità 225-750 M/Min. (750-2500 SFM)  
**Per lavorazioni ad alta velocità su alluminio**  
Alta velocità - Alto volume di materiale asportato (Per 5.000-20.000 Giri al minuto)  
Usare mandrini bilanciati  
Rispettare la perpendicolarità  
Può essere modificata in 48 ore



高速加工铝合金整体硬质合金立铣刀 - 中心切削  
特殊涂层专为加工铝合金  
适用于按750-2500英尺/分(225-750 米/分) 线速度运转的专用涂层  
**适合高速加工铝合金**  
高速-高切屑率 用于主轴转速在5,000-20,000 RPM  
使用动平衡的刀夹  
保持垂直  
可在48小时内磨成削平柄

EDP#	d1 †		d2	l1	l2	l3	d3	
	Decimal	Diameter						Metric
41173	.1181		3.000	3.0	38	6	-	
41183	.1181		3.000	3.0	38	12	-	
41193	.1250	1/8"	3.175	1/8"	1-1/2"	1/4"	-	
41203	.1250	1/8"	3.175	1/8"	1-1/2"	1/2"	-	
41213	.1575		4.000	6.0	50	8	-	
41223	.1575		4.000	6.0	50	12	-	
41243	.1575		4.000	6.0	65	6	20	3.7
41273	.1875	3/16"	4.763	3/16"	2"	5/16"	-	
41283	.1875	3/16"	4.763	3/16"	2"	9/16"	-	
41303	.1875	3/16"	4.763	3/16"	3"	7/32"	3/4"	.170"
41313	.1875	3/16"	4.763	3/16"	3"	1"	-	
41343	.1969		5.000	6.0	65	16	-	
41363	.1969		5.000	6.0	75	8	20	4.7
41403	.2362		6.000	6.0	65	19	-	
41423	.2362		6.000	6.0	75	10	25	5.7
<b>NEW</b> 39735	.2500	1/4"	6.350	1/4"	2"	3/8"	-	
<b>NEW</b> 39737	.2500	1/4"	6.350	1/4"	2"	1/2"	-	
41453	.2500	1/4"	6.350	1/4"	2-1/2"	3/8"	-	
41463	.2500	1/4"	6.350	1/4"	2-1/2"	3/4"	-	
41473	.2500	1/4"	6.350	1/4"	3"	1"	-	
41493	.2500	1/4"	6.350	1/4"	4"	3/8"	1-1/8"	.235"
41503	.2500	1/4"	6.350	1/4"	4"	3/8"	2-1/8"	.235"
41513	.2500	1/4"	6.350	1/4"	4"	1-5/8"	-	
41543	.2756		7.000	8.0	65	19	-	
41563	.2756		7.000	8.0	75	12	25	6.4
41593	.3125	5/16"	7.938	5/16"	2-1/2"	7/16"	-	
41603	.3125	5/16"	7.938	5/16"	2-1/2"	3/4"	-	
41623	.3125	5/16"	7.938	5/16"	4"	7/16"	1-1/8"	.297"
<b>NEW</b> 39739	.3150		8.000	8.0	50	12	-	
41663	.3150		8.000	8.0	65	19	-	
41683	.3150		8.000	8.0	75	12	25	7.4
41693	.3150		8.000	8.0	100	12	55	7.4
<b>NEW</b> 39741	.3750	3/8"	9.525	3/8"	2"	1/2"	-	
41713	.3750	3/8"	9.525	3/8"	2-1/2"	1/2"	-	
<b>NEW</b> 39743	.3750	3/8"	9.525	3/8"	2-1/2"	3/4"	-	
41723	.3750	3/8"	9.525	3/8"	2-1/2"	7/8"	-	
41733	.3750	3/8"	9.525	3/8"	3"	1"	-	
41763	.3750	3/8"	9.525	3/8"	4"	1/2"	2-1/8"	.355"
41773	.3750	3/8"	9.525	3/8"	4"	1-5/8"	-	
42363	.3750	3/8"	9.525	3/8"	4"	2"	-	
41783	.3750	3/8"	9.525	3/8"	6"	1/2"	4"	.355"

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MATERIAL HARDNESS (RC)  
35  
0

EDP#	$d_1$ † Diameter		$d_2$ Shank Diameter	$l_1$ Overall Length	$l_2$ Flute Length	$l_3$ Reach Length	$d_3$ Neck Diameter
	Decimal	Metric					
NEW 39745	.3937	10.000	10.0	50	14	-	-
41803	.3937	10.000	10.0	70	24	-	-
41843	.3937	10.000	10.0	100	12	35	9.4
41853	.3937	10.000	10.0	100	12	55	9.4
41863	.3937	10.000	10.0	150	12	110	9.4
NEW 39747	.4724	12.000	12.0	65	16	-	-
NEW 39749	.4724	12.000	12.0	75	26	-	-
41883	.4724	12.000	12.0	75	32	-	-
41893	.4724	12.000	12.0	100	50	-	-
41903	.4724	12.000	12.0	100	16	40	11.4
41913	.4724	12.000	12.0	100	16	55	11.4
41923	.4724	12.000	12.0	150	16	110	11.4
NEW 39751	.5000	1/2"	12.700	1/2"	2-1/2"	5/8"	-
NEW 39753	.5000	1/2"	12.700	1/2"	2-1/2"	3/4"	-
41933	.5000	1/2"	12.700	1/2"	3"	5/8"	-
NEW 39755	.5000	1/2"	12.700	1/2"	3"	1"	-
41943	.5000	1/2"	12.700	1/2"	3"	1-1/4"	-
41963	.5000	1/2"	12.700	1/2"	4"	1-5/8"	-
41973	.5000	1/2"	12.700	1/2"	4"	2"	-
41983	.5000	1/2"	12.700	1/2"	4"	5/8"	2-1/8"
41993	.5000	1/2"	12.700	1/2"	6"	5/8"	4-1/8"
42003	.5000	1/2"	12.700	1/2"	6"	3-1/8"	-
NEW 39757	.6250	5/8"	15.875	5/8"	3"	3/4"	-
42013	.6250	5/8"	15.875	5/8"	3-1/2"	3/4"	-
NEW 39759	.6250	5/8"	15.875	5/8"	3-1/2"	1"	-
42016	.6250	5/8"	15.875	5/8"	3-1/2"	1-1/4"	-
42021	.6250	5/8"	15.875	5/8"	4"	1-1/2"	-
42023	.6250	5/8"	15.875	5/8"	4"	1-5/8"	-
42373	.6250	5/8"	15.875	5/8"	4"	2-1/8"	-
42033	.6250	5/8"	15.875	5/8"	6"	3/4"	2-3/8"
42043	.6250	5/8"	15.875	5/8"	6"	3/4"	4-3/8"
42053	.6250	5/8"	15.875	5/8"	6"	3-1/4"	-
42083	.6299	16.000	16.0	100	40	-	-
42103	.6299	16.000	16.0	100	20	40	15.4
42113	.6299	16.000	16.0	125	20	60	15.4
42123	.6299	16.000	16.0	150	20	110	15.4
42133	.7500	3/4"	19.050	3/4"	4"	1"	-
42136	.7500	3/4"	19.050	3/4"	4"	1-1/4"	-
42141	.7500	3/4"	19.050	3/4"	4"	1-1/2"	-
42143	.7500	3/4"	19.050	3/4"	4"	1-5/8"	-
42153	.7500	3/4"	19.050	3/4"	5"	2-1/4"	-
42163	.7500	3/4"	19.050	3/4"	6"	1"	2-1/2"
42173	.7500	3/4"	19.050	3/4"	6"	1"	4-3/8"
42193	.7500	3/4"	19.050	3/4"	6"	3-1/4"	-
42203	.7874	20.000	20.0	100	25	-	-
42213	.7874	20.000	20.0	100	32	-	-
42223	.7874	20.000	20.0	100	20	40	19.0
42226	.7874	20.000	20.0	125	20	60	19.0
42233	.7874	20.000	20.0	150	20	85	19.0
42236	.7874	20.000	20.0	150	20	110	19.0
42243	.9843	25.000	25.0	100	38	-	-
42283	.9843	25.000	25.0	100	25	50	24.0
42286	.9843	25.000	25.0	125	25	65	24.0
42291	.9843	25.000	25.0	150	25	90	24.0
42293	1.000	1"	25.400	1"	4"	1"	-
42303	1.000	1"	25.400	1"	4"	1-5/8"	-
42313	1.000	1"	25.400	1"	5"	2"	-
42343	1.000	1"	25.400	1"	6"	1-1/4"	3-3/8"
42353	1.000	1"	25.400	1"	6"	3-1/4"	-

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MATERIAL HARDNESS (RC)

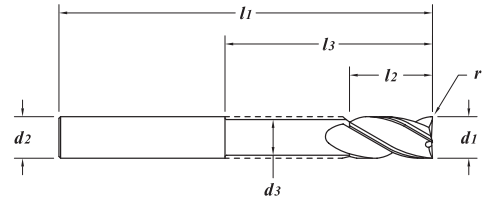
Series 143R

3,000mm - 6,000mm  
(.1181" - .2362")



TOLERANCES	
d1	+0,000 -0,025mm (+.000" -.001")
d2	h6
r	+0,0127 -0,0127mm (+.0005" -.0005")

- HSAL - Corner Radius - ALUMASTAR Coated
- HSAL - Eckenradius - ALUMASTAR-Beschichtet
- HSAL - Ángulo Redondeado - Recubrimiento de ALUMASTAR
- HSAL - Rayon de Coin - Revêtement ALUMASTAR
- HSAL - Torica - Rivestimento in ALUMASTAR
- HSAL - 圆角半径 - ALUMASTAR 涂层



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Benutzen Sie korrekt gewuchtete Spannmittel  
Hilft die Perpendicularität zu halten  
Kann mit einer Fläche innerhalb von 48 Stunden werden

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Recubrimiento concebido específicamente para repeler el aluminio  
Diseñado para trabajar a 225-750 M/Min. (750-2500 SFM)  
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Alta velocidad - alto índice de desalajo de viruta (Para husillos de 5.000-20.000 rp.m.)  
Use portaherramientas adecuadaente equilibrados  
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Haute velocite et haut volume copeaux (Pour les mandrins 5,000-20,000 RPM)  
Utilisation avec porte outils équilibrés  
Aide a tenir la perpendicularite  
Peut etre modifier avec un surface plat sous un delai de 48 heures

Fresa sub-micrograno metallo duro - taglio al centro  
Rivestimento specifico costruito per respingere alluminio  
Costruito per alta velocità 225-750 M/Min. (750-2500 SFM)  
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Può essere modificata in 48 ore

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使用动平衡的刀夹  
保持垂直  
可在48小时内磨成削平柄

EDP#	d1 † Diameter		d2 Shank Diameter	l1 Overall Length	l2 Flute Length	r Corner Radius	l3 Reach Length	d3 Neck Diameter	
	Decimal	Metric							
39113	.1181	3.000	3.0	38	6	0.20	-	-	
39123	.1181	3.000	3.0	38	6	0.50	-	-	
39133	.1181	3.000	3.0	38	12	0.20	-	-	
39143	.1181	3.000	3.0	38	12	0.50	-	-	
39153	.1250	1/8"	3.175	1/8"	1-1/2"	1/4"	.010"	-	-
39163	.1250	1/8"	3.175	1/8"	1-1/2"	1/4"	.020"	-	-
39173	.1250	1/8"	3.175	1/8"	1-1/2"	1/2"	.010"	-	-
39183	.1250	1/8"	3.175	1/8"	1-1/2"	1/2"	.020"	-	-
39193	.1575	4.000	6.0	50	8	0.20	-	-	
39203	.1575	4.000	6.0	50	8	0.50	-	-	
39213	.1575	4.000	6.0	50	12	0.20	-	-	
39223	.1575	4.000	6.0	50	12	0.30	-	-	
39225	.1575	4.000	6.0	50	12	0.50	-	-	
39243	.1575	4.000	6.0	65	6	0.30	20	3.7	
39253	.1575	4.000	6.0	65	6	0.50	20	3.7	
39263	.1575	4.000	6.0	65	6	1.00	20	3.7	
39265	.1875	3/16"	4.763	3/16"	2"	5/16"	.010"	-	-
39275	.1875	3/16"	4.763	3/16"	2"	5/16"	.020"	-	-
39280	.1875	3/16"	4.763	3/16"	2"	5/16"	.030"	-	-
39283	.1875	3/16"	4.763	3/16"	2"	9/16"	.010"	-	-
39285	.1875	3/16"	4.763	3/16"	2"	9/16"	.020"	-	-
39293	.1875	3/16"	4.763	3/16"	2"	9/16"	.030"	-	-
39303	.1875	3/16"	4.763	3/16"	3"	7/32"	.010"	3/4"	.170"
39313	.1875	3/16"	4.763	3/16"	3"	7/32"	.030"	3/4"	.170"
39343	.1969	5.000	6.0	65	16	0.30	-	-	
39363	.1969	5.000	6.0	75	8	0.30	20	4.7	
39373	.1969	5.000	6.0	75	8	0.50	20	4.7	
39383	.1969	5.000	6.0	75	8	1.00	20	4.7	
39403	.2362	6.000	6.0	65	19	0.30	-	-	
39423	.2362	6.000	6.0	75	10	0.30	25	5.7	
39433	.2362	6.000	6.0	75	10	0.50	25	5.7	
39436	.2362	6.000	6.0	75	10	1.00	25	5.7	
39439	.2362	6.000	6.0	75	10	1.50	25	5.7	
39443	.2362	6.000	6.0	75	10	2.00	25	5.7	

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