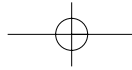




Micrograin End Mills

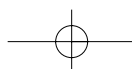






Indice grafico

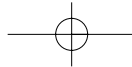
Graphic index · Graphischer Index · Index graphique

CODICE · ITEM NO. ARTIKEL NR. · RÉFÉRENCE	DESCRIZIONE · DESCRIPTION EZEICHUNG · DESCRIPTION	PAGINA · PAGE SEITE · PAGE	
MDCS2	2F corta · short · kurz · court	150	
MDTACS2	2F PV10 corta · short · kurz · court	150	
MDCL2	2F lunga · long · lang · longue	154	
MDTACL2	2F PV10 lunga · long · lang · longue	154	
MDWS2	2F corta · short · kurz · court	152	
MDTAWS2	2F PV10 corta · short · kurz · court	152	
MDCSB2	2F B corta · short · kurz · court	151	
MDTACSB2	2F B PV10 corta · short · kurz · court	151	
MDCLB2	2F B lunga · long 2F B lang · longue	155	
MDTACLB2	2F B PV10 lunga · long 2F B PV10 lang · longue	155	
MDCS3	3F corta · short · kurz · courte	150	
MDTACS3	3F PV10 corta · short · kurz · courte	150	
MDWS3	3F corta · short · kurz · court	152	
MDTAWS3	3F PV10 corta · short · kurz · court	152	
MDWSH3	3F 50° corta · short · kurz · court	153	
MDTAWSH3	3F 50° PV10 corta · short · kurz · court	153	
MDCS4	4F corta · short · kurz · court	150	
MDTACS4	4F PV10 corta · short · kurz · court	150	
MDCL4	4F lunga · long · lang · longue	154	
MDTACL4	4F PV10 lunga · long · lang · longue	154	
MDWS4	4F corta · short · kurz · court	152	
MDTAWS4	4F PV10 corta · short · kurz · court	152	





CODICE · ITEM NO. ARTIKEL NR. · RÉFÉRENCE	DESCRIZIONE · DESCRIPTION EZEICHUNG · DESCRIPTION	PAGINA · PAGE SEITE · PAGE	
MDCSB4	4F B corta · short · kurz · court	151	
MDTACSB4	4F B PV10 corta · short · kurz · court	151	

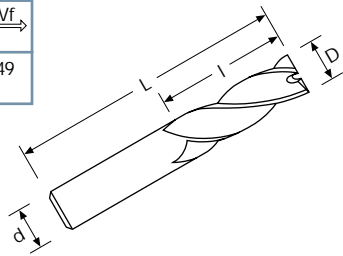


Micrograin End Mills



■ FRESE 2F, 3F, 4F CORTE
 ■ 2F, 3F, 4F SHORT END MILLS
■ 2F, 3F, 4F KURZE FRÄSER
 ■ FRAISES 2F, 3F, 4F COURTES

n	V_f
248 - 249	250



CODICE / ITEM NO. / ARTIKEL NR. / RÉFÉRENCE	MDCS2	MDTACS2	MDCS3	MDTACS3	MDCS4	MDTACS4	
TIPO / TYPE / TYP / TYPE	N	N	N	N	N	N	
NR. TAGLIENTI / FLUTES NO. / NUTENZAHL / NB. DE DENTS	2	2	3	3	4	4	
ATTACCO / SHANK / SCHAFT / QUEUE	C	C	C	C	C	C	
MATERIALE / MATERIAL / WERKSTOFF / MATIÈRE	CARBIDE	CARBIDE	CARBIDE	CARBIDE	CARBIDE	CARBIDE	
RIVESTIMENTO / COATING / BESCHICHTUNG / REVÊTEMENT	BR	PV10	BR	PV10	BR	PV10	
NORMA / NORM / NORM / NORME	OSAWA	OSAWA	OSAWA	OSAWA	OSAWA	OSAWA	
TOLLERANZA / TOLERANCE / TOLERANZ / TOLÉRANCE	h10	h10	h10	h10	h10	h10	
ELICA / HELIX / SPIRAL / HÉLICE	30°	30°	30°	30°	30°	30°	
D	d (h6)	l	L	Stock	Stock	Stock	Stock
MM. 1	4	3	40	●	●	△	△
MM. 1.5	4	4.5	40	●	●	△	△
MM. 2	2	8	32	●	●	●	●
MM. 2.5	2.5	8	32	●	●	○	●
MM. 3	3	12	32	●	●	●	●
MM. 3.5	3.5	12	32	●	●	△	△
MM. 4	4	12	40	●	●	●	●
MM. 4.5	4.5	14	50	△	△	△	△
MM. 5	5	14	50	●	●	●	●
MM. 6	6	16	50	●	●	●	●
MM. 7	7	20	60	●	○	●	○
MM. 8	8	20	60	●	●	●	●
MM. 9	9	20	60	●	○	●	○
MM.10	10	22	70	●	●	●	●
MM.12	12	22	70	●	●	●	●
MM.14	14	25	75	●	●	●	●
MM.16	16	25	75	●	●	●	●
MM.20	20	32	100	●	●	●	○

Ø mm.	Tol. µ				
	1-3	3.5-6	6.5-10	10.5-18	19-25
D h10	0 / -40	0 / -48	0 / -58	0 / -70	0 / -84
d h6	0/-6	0/-8	0/-9	0/-11	0/-13

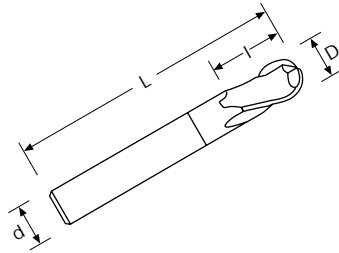
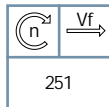
MICROGRAIN END MILLS



Micrograin End Mills

🇮🇹 FRESE 2F, 4F RAGGIATE, CORTE 🇬🇧 2F, 4F BALL NOSE, SHORT END MILLS

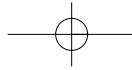
🇩🇪 2F, 4F MIT RUNDER STIRN, KURZE FRÄSER 🇫🇷 FRAISES 2F, 4F À BOUT HÉMISPHERIQUE, COURTES



CODICE / ITEM NO. / ARTIKEL NR. / RÉFÉRENCE				MDCSB2	MDTACSB2	MDCSB4	MDTACSB4
TIPO / TYPE / TYP / TYPE				N	N	N	N
NR.TAGLIANTI / FLUTES NO. / NUTENZAHL / NB.DE DENTS				2B	2B	4B	4B
ATTACCO / SHANK / SCHAFT / QUEUE				C	C	C	C
MATERIALE / MATERIAL / WERKSTOFF / MATIÈRE				CARBIDE	CARBIDE	CARBIDE	CARBIDE
RIVESTIMENTO / COATING / BESCHICHTUNG / REVÊTEMENT				BR	PV10	BR	PV10
NORMA / NORM / NORM / NORME				OSAWA	OSAWA	OSAWA	OSAWA
TOLLERANZA / TOLERANCE / TOLERANZ / TOLÉRANCE				e8	e8	e8	e8
ELICA / HELIX / SPIRAL / HÉLICE				30°	30°	30°	30°
D	d (h6)	l	L	Stock	Stock	Stock	Stock
MM. 1	3	4	38	●	●	△	△
MM. 1.5	3	4.5	38	●	●	△	△
MM. 2	3	6.3	38	●	●	△	△
MM. 2	6	4	48			●	●
MM. 2.5	3	9.5	38	●	●	△	△
MM. 3	3	12	38	●	●		
MM. 3	6	4	48	○	○	●	●
MM. 3.5	4	12	50	○	○		
MM. 4	4	12	40	●	●		
MM. 4	6	6	50	○	○	●	●
MM. 5	6	7	51	○	○	●	●
MM. 5	5	14	50	●	●		
MM. 6	6	7	51	●	●	●	●
MM. 8	8	9	59	●	●	●	●
MM.10	10	10	60	●	●	●	●
MM.12	12	14	71	●	●	●	●
MM.14	14	14	71	●	○	●	○
MM.16	16	16	76	●	○	●	○
MM.18	18	18	76	○	○	○	○
MM.20	20	20	82	○	○	○	○

R: ± 0.02mm

Ø mm.	Tol. µ				
	1-3	3.5-6	6.5-10	10.5-18	19-25
D e8	-14/-28	-20/-38	-25/-47	-32/-59	-40/-73
d h6	0/-6	0/-8	0/-9	0/-11	0/-13

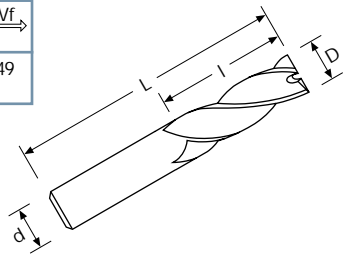


Micrograin End Mills



🇮🇹 FRESE 2F, 3F, 4F CORTE
 🇬🇧 2F, 3F, 4F SHORT END MILLS
🇩🇪 2F, 3F, 4F KURZE FRÄSER
 🇫🇷 FRAISES 2F, 3F, 4F COURTES

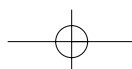
n	V_f
248 - 249	250



CODICE / ITEM NO. / ARTIKEL NR. / RÉFÉRENCE	MDWS2	MDTAW2	MDWS3	MDTAW3	MDWS4	MDTAW4				
TIPO / TYPE / TYP / TYPE	N	N	N	N	N	N				
NR. TAGLIENTI / FLUTES NO. / NUTENZAHL / NB. DE DENTS	2	2	3	3	4	4				
ATTACCO / SHANK / SCHAFT / QUEUE	W	W	W	W	W	W				
MATERIALE / MATERIAL / WERKSTOFF / MATIÈRE	CARBIDE	CARBIDE	CARBIDE	CARBIDE	CARBIDE	CARBIDE				
RIVESTIMENTO / COATING / BESCHICHTUNG / REVÊTEMENT	BR	PV10	BR	PV10	BR	PV10				
NORMA / NORM / NORM / NORME	6527	6527	6527	6527	6527	6527				
TOLLERANZA / TOLERANCE / TOLERANZ / TOLÉRANCE	h10	h10	h10	h10	h10	h10				
ELICA / HELIX / SPIRAL / HÉLICE	30°	30°	30°	30°	30°	30°				
D	d (h6)	IZ2-Z3	Z4	L	Stock	Stock	Stock	Stock	Stock	Stock
MM. 3	6	7	8	57	●	○	●	○	●	○
MM. 4	6	8	11	57	●	○	●	○	●	○
MM. 5	6	10	13	57	●	○	●	○	●	○
MM. 6	6	10	13	57	●	○	●	○	●	○
MM. 8	8	16	19	63	●	○	●	○	●	○
MM.10	10	19	22	72	●	○	●	○	●	○
MM.12	12	22	26	83	●	○	●	○	●	○
MM.14	14	22	26	83	●	○	●	○	●	○
MM.16	16	26	32	92	●	○	●	○	●	○
MM.18	18	26	32	92	●	○	●	○	●	○
MM.20	20	32	38	104	●	○	●	○	●	○

Ø mm.	Tol. µ				
	1-3	3.5-6	6.5-10	10.5-18	19-30
D h10	0/-40	0/-48	0/-58	0/-70	0/-84
d h6	0/-6	0/-8	0/-9	0/-11	0/-13

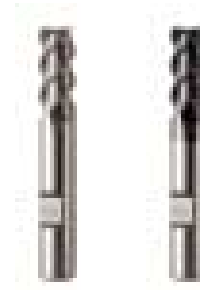
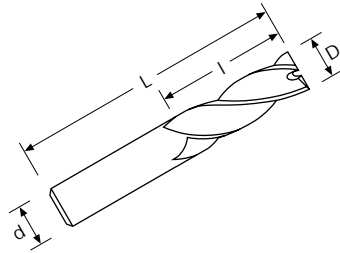
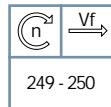
MICROGRAIN END MILLS





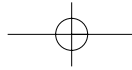
Micrograin End Mills

FRESE 3F 50° CORTE 3F 50° SHORT END MILLS
 3F 50° KURZE FRÄSER FRAISES 3F 50° COURTES



CODICE / ITEM NO. / ARTIKEL NR. / RÉFÉRENCE				MDWSH3	MDTAWSH3
TIPO / TYPE / TYP / TYPE				N	N
NR.TAGLIANTI / FLUTES NO. / NUTENZAHL / NB.DE DENTS				3	3
ATTACCO / SHANK / SCHAFT / QUEUE				W	W
MATERIALE / MATERIAL / WERKSTOFF / MATIÈRE				CARBIDE	CARBIDE
RIVESTIMENTO / COATING / BESCHICHTUNG / REVÊTEMENT				BR	PV10
NORMA / NORM / NORM / NORME				OSAWA	OSAWA
TOLLERANZA / TOLERANCE / TOLERANZ / TOLÉRANCE				h10	h10
ELICA / HELIX / SPIRAL / HÉLICE				50°	50°
D	d (h6)	l	L	Stock	Stock
MM. 3	6	7	57	●	●
MM. 4	6	8	57	●	●
MM. 5	6	10	57	●	●
MM. 6	6	10	57	●	●
MM. 8	8	16	63	●	●
MM.10	10	19	72	●	●
MM.12	12	22	83	●	●
MM.14	14	22	83	●	●
MM.16	16	26	92	●	●
MM.18	18	26	92	●	○
MM.20	20	32	104	●	●

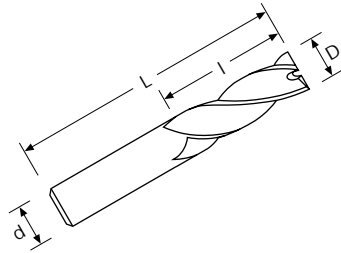
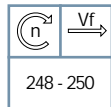
Ø mm.	Tol. µ				
	1-3	3.5-6	6.5-10	10.5-18	19-30
D h10	0/-40	0/-48	0/-58	0/-70	0/-84
d h6	0/-6	0/-8	0/-9	0/-11	0/-13



Micrograin End Mills



🇮🇹 FRESE 2F, 4F EXTRA LUNGHE 🇬🇧 2F, 4F EXTRA LONG END MILLS
🇩🇪 2F, 4F EXTRA LANGE FRÄSER 🇫🇷 FRAISES 2F, 4F EXTRA LONGUES

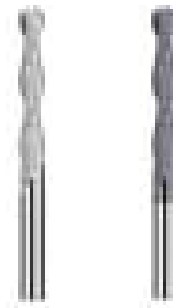
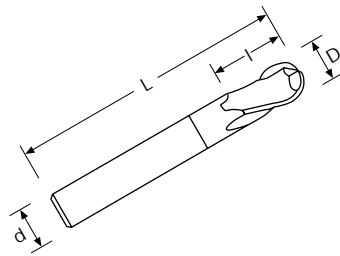
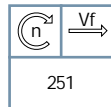


CODICE / ITEM NO. / ARTIKEL NR. / RÉFÉRENCE				MDCL2	MDTACL2	MDCL4	MDTACL4
TIPO / TYPE / TYP / TYPE				N	N	N	N
NR.TAGLIENTI / FLUTES NO. / NUTENZAHL / NB.DE DENTS				2	2	4	4
ATTACCO / SHANK / SCHAFT / QUEUE				C	C	C	C
MATERIALE / MATERIAL / WERKSTOFF / MATIÈRE				CARBIDE	CARBIDE	CARBIDE	CARBIDE
RIVESTIMENTO / COATING / BESCHICHTUNG / REVÊTEMENT				BR	PV10	BR	PV10
NORMA / NORM / NORM / NORME				OSAWA	OSAWA	OSAWA	OSAWA
TOLLERANZA / TOLERANCE / TOLERANZ / TOLÉRANCE				h10	h10	h10	h10
ELICA / HELIX / SPIRAL / HÉLICE				30°	30°	30°	30°
D	d (h6)	l	L	Stock	Stock	Stock	Stock
MM. 3	3	30	75	●	○	●	○
MM. 4	4	30	75	●	○	●	○
MM. 5	5	40	100	●	○	●	○
MM. 6	6	50	150	●	○	●	○
MM. 8	8	50	150	●	○	●	○
MM.10	10	60	150	●	○	●	○
MM.12	12	75	150	●	○	●	○
MM.14	14	65	150	●	○	△	△
MM.16	16	65	150	●	○	●	○
MM.18	18	65	150	○	○	△	△
MM.20	20	65	150	○	○	●	○

Ø mm.	Tol. µ				
	1-3	3.5-6	6.5-10	10.5-18	19-30
D h10	0/-40	0/-48	0/-58	0/-70	0/-84
d h6	0/-6	0/-8	0/-9	0/-11	0/-13

MICROGRAIN END MILLS

 FRESE 2F, RAGGIATE, LUNGHE ED EXTRA LUNGHE
  BALL NOSE, LONG AND EXTRA LONG END MILLS
 2F, MIT RUNDER STIRN, LANGE UND EXTRA LANGE
  À BOUT HÉMISPHERIQUE, LONGUE ET EXTRA LONGUES



CODICE / ITEM NO. / ARTIKEL NR. / RÉFÉRENCE				MDCLB2	MDTACLB2
TIPO / TYPE / TYP / TYPE				N	N
NR.TAGLIANTI / FLUTES NO. / NUTENZAHL / NB.DE DENTS				2B	2B
ATTACCO / SHANK / SCHAFT / QUEUE				C	C
MATERIALE / MATERIAL / WERKSTOFF / MATIÈRE				CARBIDE	CARBIDE
RIVESTIMENTO / COATING / BESCHICHTUNG / REVÊTEMENT				BR	PV10
NORMA / NORM / NORM / NORME				OSAWA	OSAWA
TOLLERANZA / TOLERANCE / TOLERANZ / TOLÉRANCE				h10	h10
ELICA / HELIX / SPIRAL / HÉLICE				30°	30°
D	d (h6)	l	L	Stock	Stock
MM. 3	3	30	75	●	○
MM. 4	4	30	75	●	○
MM. 5	5	40	100	●	○
MM. 6	6	50	150	●	○
MM. 8	8	50	150	●	○
MM.10	10	60	150	●	○
MM.12	12	75	150	●	○
MM.14	14	75	150	●	○
MM.16	16	75	150	●	○
MM.18	18	75	150	○	○
MM.20	20	75	150	○	○

R: ± 0.02mm

Ø mm.	Tol. µ				
	1-3	3.5-6	6.5-10	10.5-18	19-30
D h10	0/-40	0/-48	0/-58	0/-70	0/-84
d h6	0/-6	0/-8	0/-9	0/-11	0/-13

