



INFO

CARBIDE
DRILLS

PU-HPU
TA-4HTA
SUH
ALH
HRC
SUH MINI
HL
HSD
C-SD-TA

MEF

STAINLESS STEEL AND SUPER ALLOYS

🇬🇧 Ultra-fine micrograin and Endless Black coating for high performance machining on stainless steel, HRSA and titanium alloy, carbon and low alloy steel. The unique design of the cutting geometry and the Endless Black coating are specifically developed to control the cutting friction delivering longer tool life through the reduction of the heat generation.

HSS
DRILLS

LFTA
SUTA
HSS-HSS/CO

🇮🇹 Micrograna ultrafine e rivestimento Endless Black per la lavorazione ad alto rendimento di acciai al carbonio, acciai inossidabili, HRSA e leghe di titanio. La geometria e il rivestimento specifici consentono di generare bassi sforzi di taglio e l'abbassamento del coefficiente di attrito, garantendo una riduzione dello sviluppo del calore con conseguente rallentamento del processo di usura del tagliente.

CARBIDE
END-MILLS

G2
MDTA
HF VH/UP
MEF
ALU
MEX/MH
UH/MH

🇩🇪 Besonders feine Mikrokörnung und Beschichtung Endless Black für Hochleistungsbearbeitungen von Kohlenstoffstahl, Edelstahl, HRSA und Titanlegierungen. Dank der speziellen Geometrie und der spezifischen Beschichtung wird ein niedriger Schneiddruck erzeugt und der Reibungsfaktor gesenkt, wodurch die Hitzeentwicklung reduziert und in Folge die Abnutzung der Schneidkante verzögert werden.

🇫🇷 Ultra Micrograin et revêtement Endless Black pour l'usage à haute performance pour les aciers au carbone, aciers inoxydables, HRSA et alliages de titane. La géométrie et le revêtement spécifiques permettent de générer peu d'efforts de coupe et de réduire le coefficient de frottement, en garantissant une diminution du développement de la chaleur et le ralentissement consécutif du processus d'usure de l'arête.

HSS
END-MILLS

🇪🇸 Micrograno ultrafino y revestimiento Endless Black para el mecanizado a alto rendimiento de aceros al carbono, aceros inoxidables, HRSA y aleaciones de titanio. La geometría y revestimiento específicos permiten generar bajos esfuerzos de corte y reducción del coeficiente de rozamiento, garantizando una reducción del desarrollo de calor con la consiguiente ralentización del proceso de desgaste del filo.

🇷🇺 Микрозернистая супермелкая структура твердого сплава и покрытие Endless Black служат для высокоэффективной обработки нержавеющей стали, жаропрочных и титановых сплавов, низко- и высокоуглеродистых сталей. Специальная геометрия и покрытие позволяют снизить трение и тепловыделение при резании и, тем самым, увеличить стойкость инструмента.

CARBIDE
BURRS

INFO

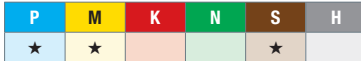
MEFCS2

cylindrical shank, 2 flutes

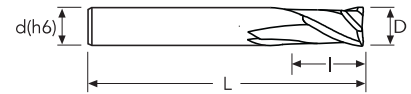


CARBIDE DRILLS

- PU-HPU
- TA-4HTA
- SUH
- ALH
- HRC
- SUH MINI
- HL
- HSD
- C-SD-TA



★ 1st choice ☆ suitable



D	D Tol.	C	C Tol.	d(h6)	l	l1	L	z	EDP No.	Stock
1	0/-0.030			4	2.5		40	2	MEFCS2010	●
1.5	0/-0.030			4	4		40	2	MEFCS2015	●
2	0/-0.030			4	6		40	2	MEFCS2020	●
2.5	0/-0.030			4	8		40	2	MEFCS2025	●
3	0/-0.030			6	8		45	2	MEFCS2030	●
4	0/-0.030			6	11		45	2	MEFCS2040	●
5	0/-0.030			6	13		50	2	MEFCS2050	●
6	0/-0.030			6	13		50	2	MEFCS2060	●
8	0/-0.030			8	19		60	2	MEFCS2080	●
10	0/-0.030			10	22		70	2	MEFCS2100	●
12	0/-0.030			12	26		75	2	MEFCS2120	●
14	0/-0.030			14	26		85	2	MEFCS2140	●
16	0/-0.030			16	32		100	2	MEFCS2160	●

CARBIDE END-MILLS

- G2
- MDTA
- HFVH/UP
- MEF**
- ALU
- MEX/MH
- UH/MH

HSS END-MILLS

CARBIDE BURRS

● stock standard ○ non-stock standard ▽ stock exhaustion

MEFCS2

	Material Group ISO 513	P1 P2 P3	P4 P7 M1	P5 M2 M3 S1 S2 S4	P8 S3 S5
	Hardness/Rm	≤700 N/mm ²	700÷1000 N/mm ²	≤35 HRC	≤45 HRC
	ap x ae	0.5D x D	0.5D x D	0.3D x D	0.2D x D
	Vc (m/min)	90÷110	50÷70	30÷50	20÷40
	D (mm)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)
1	0.005	0.004	0.004	0.004	
2	0.009	0.008	0.007	0.007	
3	0.012	0.010	0.009	0.009	
4	0.017	0.015	0.014	0.014	
5	0.023	0.020	0.018	0.018	
6	0.029	0.024	0.023	0.023	
8	0.035	0.029	0.028	0.028	
10	0.040	0.034	0.032	0.032	
12	0.046	0.039	0.037	0.037	
14	0.052	0.044	0.041	0.041	
16	0.058	0.049	0.046	0.046	

< D3 mm: ap = 0.1D ÷ 0.2D

	Material Group ISO 513	P1 P2 P3	P4 P7 M1	P5 M2 M3 S1 S2 S4	P8 S3 S5
	Hardness/Rm	≤700 N/mm ²	700÷1000 N/mm ²	≤35 HRC	≤45 HRC
	ap x ae	1.5D x 0.5D	1.5D x 0.5D	D x 0.3D	D x 0.1D
	Vc (m/min)	90÷110	60÷80	40÷60	30÷50
	D (mm)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)
1	0.006	0.005	0.004	0.004	
2	0.011	0.009	0.009	0.009	
3	0.014	0.012	0.011	0.011	
4	0.021	0.018	0.017	0.017	
5	0.028	0.023	0.022	0.022	
6	0.035	0.029	0.028	0.028	
8	0.041	0.035	0.033	0.033	
10	0.048	0.041	0.039	0.039	
12	0.055	0.047	0.044	0.044	
14	0.062	0.053	0.050	0.050	
16	0.069	0.059	0.055	0.055	

< D3 mm: ap = 0.1D ÷ 0.2D

	Material Group ISO 513	P1 P2 P3	P4 P7 M1	P5 M2 M3 S1 S2 S4	P8 S3 S5
	Hardness/Rm	≤700 N/mm ²	700÷1000 N/mm ²	≤35 HRC	≤45 HRC
	ap x ae	D x D	D x D	0.5D x D	0.2D x D
	Vc (m/min)	90÷110	50÷70	30÷50	20÷40
	D (mm)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)
1	0.003	0.002	0.002	0.002	
2	0.006	0.005	0.004	0.004	
3	0.007	0.006	0.006	0.006	
4	0.010	0.009	0.008	0.008	
5	0.014	0.012	0.011	0.011	
6	0.017	0.015	0.014	0.014	
8	0.021	0.018	0.017	0.017	
10	0.024	0.021	0.019	0.019	
12	0.028	0.023	0.022	0.022	
14	0.031	0.026	0.025	0.025	
16	0.035	0.029	0.028	0.028	

< D3 mm: ap = 0.1D ÷ 0.2D

INFO

CARBIDE DRILLS

PU-HPU
TA-4HTA
SUH
ALH
HRC
SUH MINI
HL
HSD
C-SD-TA

HSS DRILLS

LFTA
SUTA
HSS-HSS/CO

CARBIDE END-MILLS


G2
MDTA
HF VH/UP
MEF
ALU
MEX/MH
UH/MH


HSS END-MILLS

CARBIDE BURRS

CUTTING PARAMETERS

MEFCSH3

 SLOTTING	Material Group ISO 513	P1 P2 P3	P4 P7 M1	P5 M2 M3 S1 S2 S4	P8 S3 S5
	Hardness/Rm	≤700 N/mm ²	700÷1000 N/mm ²	≤35 HRC	≤45 HRC
	ap x ae	0.5D x D	0.5D x D	0.3D x D	0.2D x D
	Vc (m/min)	80÷100	60÷80	40÷60	30÷50
	D (mm)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)
6	0.022	0.013	0.012	0.012	
8	0.029	0.017	0.015	0.016	
10	0.036	0.021	0.019	0.020	
12	0.046	0.027	0.024	0.026	
14	0.053	0.031	0.028	0.030	
16	0.065	0.038	0.034	0.036	
18	0.075	0.044	0.039	0.042	
20	0.086	0.051	0.045	0.048	

 SIDE MILLING	Material Group ISO 513	P1 P2 P3	P4 P7 M1	P5 M2 M3 S1 S2 S4	P8 S3 S5
	Hardness/Rm	≤700 N/mm ²	700÷1000 N/mm ²	≤35 HRC	≤45 HRC
	ap x ae	0.5D x D	0.5D x D	0.3D x D	0.2D x D
	Vc (m/min)	80÷100	60÷80	40÷60	30÷50
	D (mm)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)
6	0.026	0.015	0.014	0.014	
8	0.035	0.020	0.019	0.019	
10	0.043	0.026	0.024	0.024	
12	0.055	0.033	0.031	0.031	
14	0.064	0.038	0.036	0.036	
16	0.078	0.046	0.043	0.043	
18	0.090	0.053	0.050	0.050	
20	0.104	0.061	0.058	0.058	

INFO

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HSS
DRILLS
 LFTA
 SUTA
 HSS-HSS/CO
CARBIDE
END-MILLS
 G2
 MDTA
 HF VH/UP
MEF
 ALU
 MEX/MH
 UH/MH
HSS
END-MILLSCARBIDE
BURRS

INFO

MEFCS4

cylindrical shank, 4 flutes



CARBIDE DRILLS

- PU-HPU
- TA-4HTA
- SUH
- ALH
- HRC
- SUH MINI
- HL
- HSD
- C-SD-TA

P	M	K	N	S	H
★	★			★	

★ 1st choice ☆ suitable



D	D Tol.	C	C Tol.	d(h6)	l	l1	L	z	EDP No.	Stock
2	0/-0.030			4	6		40	4	MEFCS4020	●
2.5	0/-0.030			4	8		40	4	MEFCS4025	●
3	0/-0.030			6	8		45	4	MEFCS4030	●
4	0/-0.030			6	11		45	4	MEFCS4040	●
5	0/-0.030			6	13		50	4	MEFCS4050	●
6	0/-0.030			6	13		50	4	MEFCS4060	●
8	0/-0.030			8	19		60	4	MEFCS4080	●
10	0/-0.030			10	22		70	4	MEFCS4100	●
12	0/-0.030			12	26		75	4	MEFCS4120	●
14	0/-0.030			14	26		85	4	MEFCS4140	●
16	0/-0.030			16	32		100	4	MEFCS4160	●
20	0/-0.030			20	38		105	4	MEFCS4200	●

HSS DRILLS

- LFTA
- SUTA
- HSS-HSS/CO

CARBIDE END-MILLS

- G2
- MDTA
- HFVH/UP
- MEF**
- ALU
- MEX/MH
- UH/MH


HSS END-MILLS

CARBIDE BURRS

● stock standard ○ non-stock standard ▽ stock exhaustion

CUTTING PARAMETERS

MEFCS4


	Material Group ISO 513	P1 P2 P3	P4 P7 M1	P5 M2 M3 S1 S2 S4	P8 S3 S5
	Hardness/Rm	≤700 N/mm ²	700÷1000 N/mm ²	≤35 HRC	≤45 HRC
	ap x ae	1.5D x 0.1D	1.5D x 0.1D	1.5D x 0.1D	1.5D x 0.1D
	Vc (m/min)	90±110	60±80	40±60	30±50
	D (mm)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)
3	0.012	0.010	0.010	0.010	
4	0.015	0.013	0.012	0.012	
5	0.018	0.015	0.014	0.014	
6	0.023	0.020	0.018	0.018	
8	0.030	0.026	0.024	0.024	
10	0.038	0.032	0.030	0.030	
12	0.045	0.038	0.036	0.036	
14	0.052	0.044	0.042	0.042	
16	0.058	0.049	0.046	0.046	
18	0.066	0.056	0.053	0.053	
20	0.075	0.064	0.060	0.060	

INFO

CARBIDE
DRILLS
 PU-HPU
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 HL
 HSD
 C-SD-TA
HSS
DRILLS
 LFTA
 SUTA
 HSS-HSS/CO
CARBIDE
END-MILLS
 G2
 MDTA
 HF VH/UP
MEF
 ALU
 MEX/MH
 UH/MH
HSS
END-MILLSCARBIDE
BURRS

CUTTING PARAMETERS

MEF600


	Material Group ISO 513	P1 P2 P3	P4 P7 M1	P5 M2 M3 S1 S2 S4	P8 S3 S5
	Hardness/Rm	≤700 N/mm ²	700÷1000 N/mm ²	≤35 HRC	≤45 HRC
	ap x ae	1.5D x 0.1D	1.5D x 0.1D	D x 0.1D	D x 0.05D
	Vc (m/min)	100÷140	70÷110	50÷80	40÷60
	D (mm)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)
	6	0.015	0.013	0.012	0.012
	8	0.020	0.017	0.016	0.016
	10	0.025	0.021	0.020	0.020
	12	0.030	0.026	0.024	0.024
	14	0.035	0.030	0.028	0.028
16	0.040	0.034	0.032	0.032	
20	0.050	0.043	0.040	0.040	

INFO

CARBIDE
DRILLS
 PU-HPU
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HSS
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 LFTA
 SUTA
 HSS-HSS/CO
CARBIDE
END-MILLS
 G2
 MDTA
 HF VH/UP
MEF
 ALU
 MEX/MH
 UH/MH
HSS
END-MILLSCARBIDE
BURRS

CUTTING PARAMETERS

MEF901

	Material Group ISO 513	P1 P2 P3	P4 P7 M1	P5 M2 M3 S1 S2 S4	P8 S3 S5
	Hardness/Rm	≤700 N/mm ²	700÷1000 N/mm ²	≤35 HRC	≤45 HRC
	ap x ae	1.5D x 0.3D	1.5D x 0.3D	1.5D x 0.2D	D x 0.1D
	Vc (m/min)	100÷140	70÷90	50÷70	40÷60
	D (mm)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)
	4	0.018	0.015	0.014	0.014
	5	0.022	0.019	0.018	0.018
	6	0.028	0.024	0.022	0.022
	8	0.035	0.030	0.028	0.028
	10	0.040	0.034	0.032	0.032
12	0.045	0.038	0.036	0.036	
14	0.050	0.043	0.040	0.040	
16	0.057	0.048	0.046	0.046	
20	0.073	0.062	0.058	0.058	

INFO

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CARBIDE
END-MILLS
 G2
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MEF
 ALU
 MEX/MH
 UH/MH
HSS
END-MILLSCARBIDE
BURRS

INFO

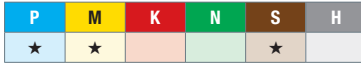
MEF902

cylindrical shank, reduced neck, roughing

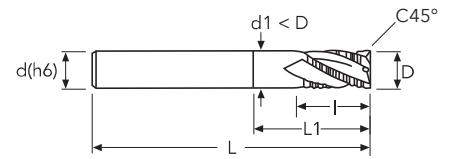


CARBIDE DRILLS

- PU-HPU
- TA-4HTA
- SUH
- ALH
- HRC
- SUH MINI
- HL
- HSD
- C-SD-TA



★ 1st choice ☆ suitable



D	D Tol.	C45°	C45° Tol.	d(h6)	l	l1	d1	L	z	EDP No.	Stock
6	0/-0.048	0.15	+/-0.020	6	16	20	5.50	57	4	MEF902060	●
8	0/-0.058	0.20	+/-0.020	8	16	26	7.50	63	4	MEF902080	●
10	0/-0.058	0.20	+/-0.020	10	22	31	9.50	72	4	MEF902100	●
12	0/-0.070	0.20	+/-0.020	12	26	37	11.50	83	4	MEF902120	●
16	0/-0.070	0.20	+/-0.020	16	32	51	15.50	92	5	MEF902160	●
20	0/-0.084	0.20	+/-0.020	20	38	59	19.20	104	6	MEF902200	●

HSS DRILLS

- LFTA
- SUTA
- HSS-HSS/CO

CARBIDE END-MILLS

- G2
- MDTA
- HFVH/UP
- MEF**
- ALU
- MEX/MH
- UHM/H


HSS END-MILLS

CARBIDE BURRS

● stock standard ○ non-stock standard ▽ stock exhaustion

CUTTING PARAMETERS

MEF902

	Material Group ISO 513	P1 P2 P3	P4 P7 M1	P5 M2 M3 S1 S2 S4	P8 S3 S5
	Hardness/Rm	≤700 N/mm ²	700÷1000 N/mm ²	≤35 HRC	≤45 HRC
	ap x ae	1.5D x 0.3D	1.5D x 0.3D	1.5D x 0.2D	D x 0.1D
	Vc (m/min)	100÷120	60÷80	45÷65	35÷45
	D (mm)	fz (mm/z)	fz (mm/z)	fz (mm/z)	fz (mm/z)
	6	0.027	0.023	0.021	0.021
	8	0.033	0.028	0.027	0.027
	10	0.038	0.032	0.030	0.030
	12	0.043	0.036	0.034	0.034
	14	0.048	0.040	0.038	0.038
16	0.054	0.046	0.043	0.043	
20	0.069	0.059	0.055	0.055	

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CARBIDE
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 HF VH/UP
MEF
 ALU
 MEX/MH
 UH/MH
HSS
END-MILLSCARBIDE
BURRS