

PRODUTOS DESENVOLVIDOS E FABRICADOS NO BRASIL!



Fresas de Metal **DURO**

Conheça nossa linha
de fresas de metal duro
para diversas aplicações.



Linha DS_ECO, melhor Custo Benefício para seu Processo;
Linha DS_MEGA, Alto Rendimento em Materiais até 55 HRC;
Linha DS_POWER para usinagem de Materiais Temperados;
Linha DS_ALUM para usinagem de Não Ferrosos.



**Mais de 20 anos
atuando no segmento
de ferramentas
e soluções.**

**Pensou em ferramentas,
consulte DSDrill.**

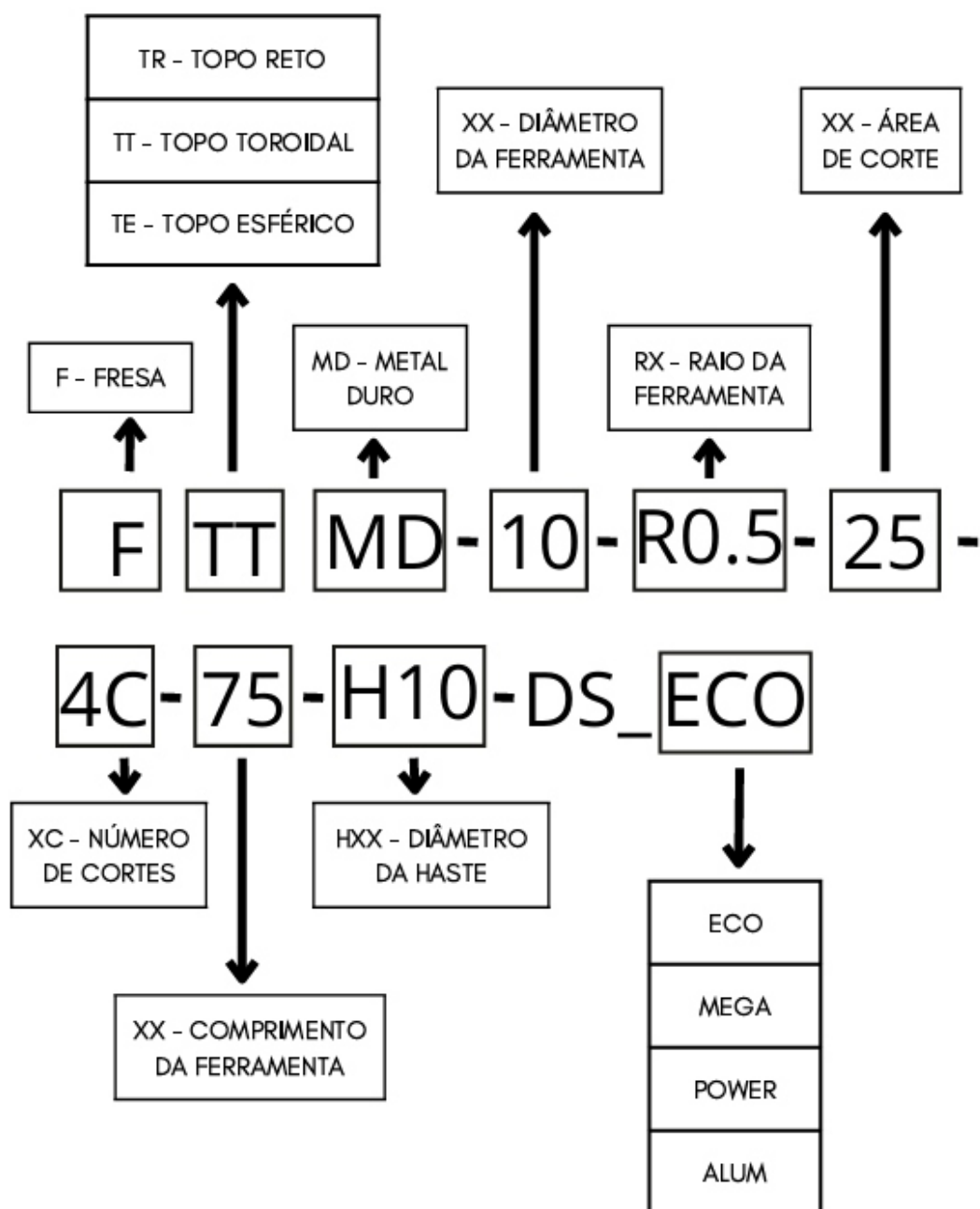


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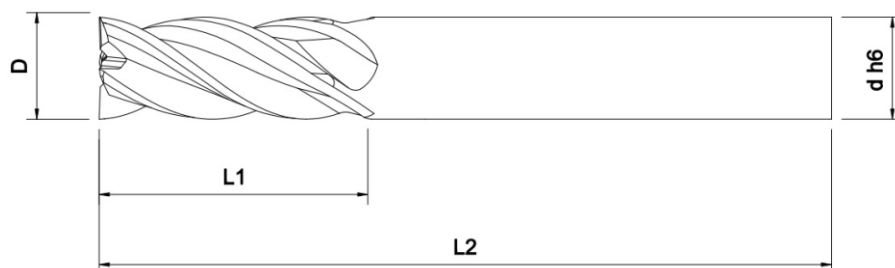


P Aços Carbono, Aços Liga	M Aços Inoxidáveis	K Ferros Fundidos
N Não Ferrosos	S Ligas Resistentes ao Calor, Titânio	
H Aços Temperados, Ferro Fundido Endurecido		



DS_ECO

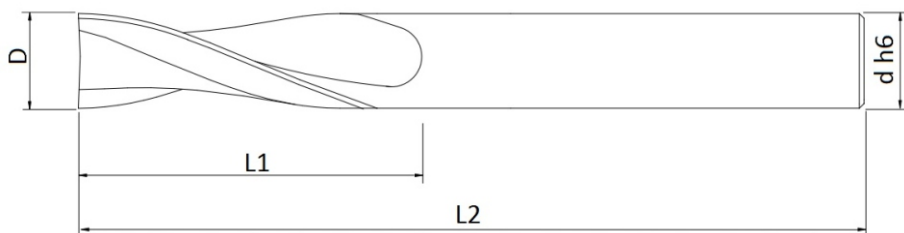
Topo Reto



CÓDIGO DSDRILL	D	L1	L2	d	C
FTRMD-03-8-4C-50-H3-DS_ECO	3	8	50	3	4
FTRMD-04-10-4C-50-H4-DS_ECO	4	10	50	4	4
FTRMD-05-13-4C-50-H5-DS_ECO	5	13	50	5	4
FTRMD-06-15-4C-50-H6-DS_ECO	6	15	50	6	4
FTRMD-08-20-4C-60-H8-DS_ECO	8	20	60	8	4
FTRMD-10-25-4C-75-H10-DS_ECO	10	25	75	10	4
FTRMD-12-30-4C-75-H12-DS_ECO	12	30	75	12	4
FTRMD-14-45-4C-100-H14-DS_ECO	14	45	100	14	4
FTRMD-16-45-4C-100-H16-DS_ECO	16	45	100	16	4
FTRMD-20-45-4C-100-H20-DS_ECO	20	45	100	20	4
FTRMD-25-45-4C-100-H25-DS_ECO	25	45	100	25	4

CÓDIGO DSDRILL	D	L1	L2	d	C
FTRMD-03-12-4C-75-H3-DS_ECO	3	12	75	3	4
FTRMD-04-12-4C-75-H4-DS_ECO	4	12	75	4	4
FTRMD-05-15-4C-75-H5-DS_ECO	5	15	75	5	4
FTRMD-06-15-4C-100-H6-DS_ECO	6	15	100	6	4
FTRMD-08-20-4C-100-H8-DS_ECO	8	20	100	8	4
FTRMD-10-25-4C-100-H10-DS_ECO	10	25	100	10	4
FTRMD-12-30-4C-100-H12-DS_ECO	12	30	100	12	4
FTRMD-14-45-4C-125-H14-DS_ECO	14	45	125	14	4
FTRMD-16-45-4C-125-H16-DS_ECO	16	45	125	16	4
FTRMD-20-45-4C-125-H20-DS_ECO	20	45	125	20	4
FTRMD-25-45-4C-125-H25-DS_ECO	25	45	125	25	4

Topo Reto



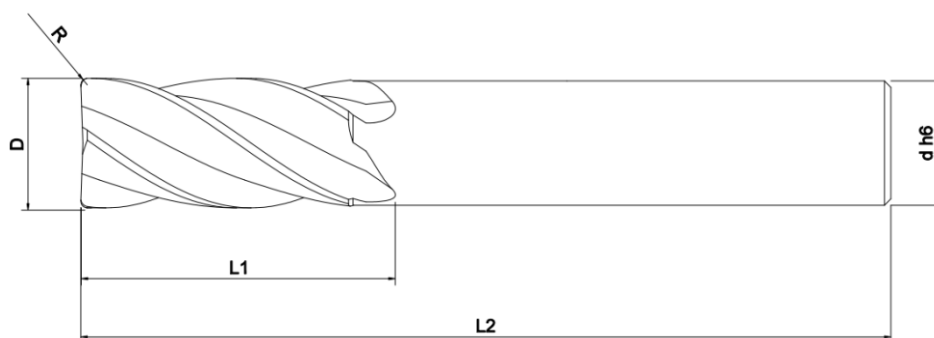
CÓDIGO DSDRILL	D	L1	L2	d	C
FTRMD-03-8-2C-50-H3-DS_ECO	3	8	50	3	2
FTRMD-04-10-2C-50-H4-DS_ECO	4	10	50	4	2
FTRMD-05-13-2C-50-H5-DS_ECO	5	13	50	5	2
FTRMD-06-15-2C-50-H6-DS_ECO	6	15	50	6	2
FTRMD-08-20-2C-60-H8-DS_ECO	8	20	60	8	2
FTRMD-10-25-2C-75-H10-DS_ECO	10	25	75	10	2
FTRMD-12-30-2C-75-H12-DS_ECO	12	30	75	12	2
FTRMD-14-45-2C-100-H14-DS_ECO	14	45	100	14	2
FTRMD-16-45-2C-100-H16-DS_ECO	16	45	100	16	2
FTRMD-20-45-2C-100-H20-DS_ECO	20	45	100	20	2
FTRMD-25-45-2C-100-H25-DS_ECO	25	45	100	25	2

CÓDIGO DSDRILL	D	L1	L2	d	C
FTRMD-03-12-2C-75-H3-DS_ECO	3	12	75	3	2
FTRMD-04-12-2C-75-H4-DS_ECO	4	12	75	4	2
FTRMD-05-15-2C-75-H5-DS_ECO	5	15	75	5	2
FTRMD-06-15-2C-100-H6-DS_ECO	6	15	100	6	2
FTRMD-08-20-2C-100-H8-DS_ECO	8	20	100	8	2
FTRMD-10-25-2C-100-H10-DS_ECO	10	25	100	10	2
FTRMD-12-30-2C-100-H12-DS_ECO	12	30	100	12	2
FTRMD-14-45-2C-125-H14-DS_ECO	14	45	125	14	2
FTRMD-16-45-2C-125-H16-DS_ECO	16	45	125	16	2
FTRMD-20-45-2C-125-H20-DS_ECO	20	45	125	20	2
FTRMD-25-45-2C-125-H25-DS_ECO	25	45	125	25	2

**Pensou em ferramentas,
consulte DSDrill.**

Topo Toroidal Raio 0,5mm

Ø 3-25	4C	TiAlN	38°	Passo Dif.	R0.5
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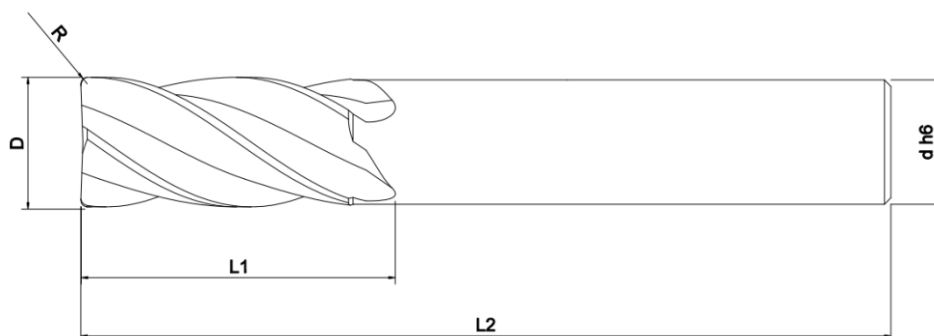


CÓDIGO DSDRILL	D	L1	L2	d	C	R
FTTMD-03-R0.5-8-4C-50-H3-DS_ECO	3	8	50	3	4	0.5
FTTMD-04-R0.5-10-4C-50-H4-DS_ECO	4	10	50	4	4	0.5
FTTMD-05-R0.5-13-4C-50-H5-DS_ECO	5	13	50	5	4	0.5
FTTMD-06-R0.5-15-4C-50-H6-DS_ECO	6	15	50	6	4	0.5
FTTMD-08-R0.5-20-4C-60-H8-DS_ECO	8	20	60	8	4	0.5
FTTMD-10-R0.5-25-4C-75-H10-DS_ECO	10	25	75	10	4	0.5
FTTMD-12-R0.5-30-4C-75-H12-DS_ECO	12	30	75	12	4	0.5
FTTMD-14-R0.5-45-4C-100-H14-DS_ECO	14	45	100	14	4	0.5
FTTMD-16-R0.5-45-4C-100-H16-DS_ECO	16	45	100	16	4	0.5
FTTMD-20-R0.5-45-4C-100-H20-DS_ECO	20	45	100	20	4	0.5
FTTMD-25-R0.5-45-4C-100-H25-DS_ECO	25	45	100	25	4	0.5

CÓDIGO DSDRILL	D	L1	L2	d	C	R
FTTMD-03-R0.5-12-4C-75-H3-DS_ECO	3	12	75	3	4	0.5
FTTMD-04-R0.5-12-4C-75-H4-DS_ECO	4	12	75	4	4	0.5
FTTMD-05-R0.5-15-4C-75-H5-DS_ECO	5	15	75	5	4	0.5
FTTMD-06-R0.5-15-4C-100-H6-DS_ECO	6	15	100	6	4	0.5
FTTMD-08-R0.5-20-4C-100-H8-DS_ECO	8	20	100	8	4	0.5
FTTMD-10-R0.5-25-4C-100-H10-DS_ECO	10	25	100	10	4	0.5
FTTMD-12-R0.5-30-4C-100-H12-DS_ECO	12	30	100	12	4	0.5
FTTMD-14-R0.5-45-4C-125-H14-DS_ECO	14	45	125	14	4	0.5
FTTMD-16-R0.5-45-4C-125-H16-DS_ECO	16	45	125	16	4	0.5
FTTMD-20-R0.5-45-4C-125-H20-DS_ECO	20	45	125	20	4	0.5
FTTMD-25-R0.5-45-4C-125-H25-DS_ECO	25	45	125	25	4	0.5

Topo Toroidal Raio 1,0mm

Ø 8-25	4C	TiAlN	38°	Passo Dif.	R1.0
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CÓDIGO DSDRILL	D	L1	L2	d	C	R
FTTMD-08-R1-20-4C-60-H8-DS_ECO	8	20	60	8	4	1
FTTMD-10-R1-25-4C-75-H10-DS_ECO	10	25	75	10	4	1
FTTMD-12-R1-30-4C-75-H12-DS_ECO	12	30	75	12	4	1
FTTMD-14-R1-45-4C-100-H14-DS_ECO	14	45	100	14	4	1
FTTMD-16-R1-45-4C-100-H16-DS_ECO	16	45	100	16	4	1
FTTMD-20-R1-45-4C-100-H20-DS_ECO	20	45	100	20	4	1
FTTMD-25-R1-45-4C-100-H25-DS_ECO	25	45	100	25	4	1

CÓDIGO DSDRILL	D	L1	L2	d	C	R
FTTMD-08-R1-20-4C-100-H8-DS_ECO	8	20	100	8	4	1
FTTMD-10-R1-25-4C-100-H10-DS_ECO	10	25	100	10	4	1
FTTMD-12-R1-30-4C-100-H12-DS_ECO	12	30	100	12	4	1
FTTMD-14-R1-45-4C-125-H14-DS_ECO	14	45	125	14	4	1
FTTMD-16-R1-45-4C-125-H16-DS_ECO	16	45	125	16	4	1
FTTMD-20-R1-45-4C-125-H20-DS_ECO	20	45	125	20	4	1
FTTMD-25-R1-45-4C-125-H25-DS_ECO	25	45	125	25	4	1

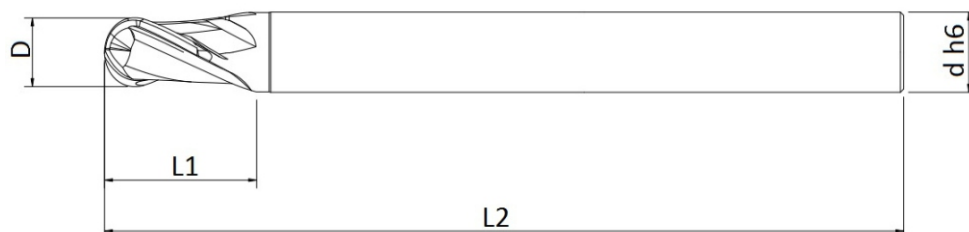
Topo Esférico

$\emptyset$
3-20

2C

TiAlN

38°



CÓDIGO DSDRILL	D	L1	L2	d	C
FTEMD-03-6-2C-50-H3-DS_ECO	3	6	50	3	2
FTEMD-04-8-2C-50-H4-DS_ECO	4	8	50	4	2
FTEMD-05-10-2C-50-H5-DS_ECO	5	10	50	5	2
FTEMD-06-12-2C-50-H6-DS_ECO	6	12	50	6	2
FTEMD-08-16-2C-60-H8-DS_ECO	8	16	60	8	2
FTEMD-10-20-2C-75-H10-DS_ECO	10	20	75	10	2
FTEMD-12-25-2C-75-H12-DS_ECO	12	25	75	12	2
FTEMD-14-30-2C-75-H14-DS_ECO	14	30	75	14	2
FTEMD-16-30-2C-75-H16-DS_ECO	16	30	75	16	2
FTEMD-20-40-2C-100-H20-DS_ECO	20	40	100	20	2

CÓDIGO DSDRILL	D	L1	L2	d	C
FTEMD-03-6-2C-75-H3-DS_ECO	3	6	75	3	2
FTEMD-04-8-2C-75-H4-DS_ECO	4	8	75	4	2
FTEMD-05-10-2C-75-H5-DS_ECO	5	10	75	5	2
FTEMD-06-12-2C-100-H6-DS_ECO	6	12	100	6	2
FTEMD-08-16-2C-100-H8-DS_ECO	8	16	100	8	2
FTEMD-10-20-2C-100-H10-DS_ECO	10	20	100	10	2
FTEMD-12-25-2C-100-H12-DS_ECO	12	25	100	12	2
FTEMD-14-30-2C-110-H14-DS_ECO	14	30	110	14	2
FTEMD-16-30-2C-110-H16-DS_ECO	16	30	110	16	2
FTEMD-20-40-2C-125-H20-DS_ECO	20	40	125	20	2

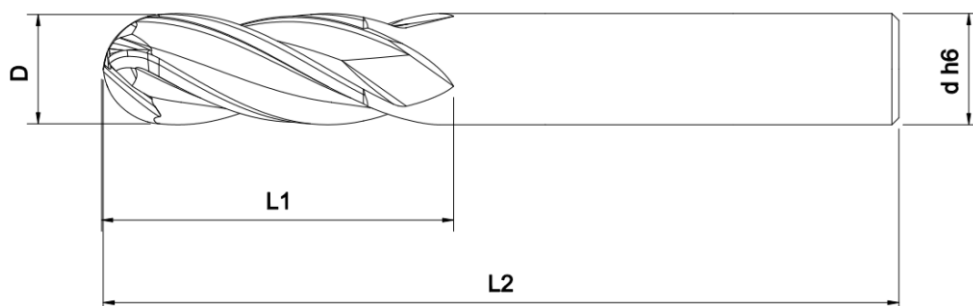
Topo Esférico

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3-20

4C

TiAlN

38°

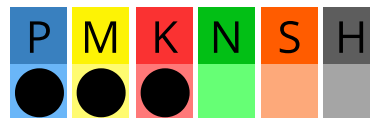


CÓDIGO DSDRILL	D	L1	L2	d	C
FTEMD-03-6-4C-50-H3-DS_ECO	3	6	50	3	4
FTEMD-04-8-4C-50-H4-DS_ECO	4	8	50	4	4
FTEMD-05-10-4C-50-H5-DS_ECO	5	10	50	5	4
FTEMD-06-12-4C-50-H6-DS_ECO	6	12	50	6	4
FTEMD-08-16-4C-60-H8-DS_ECO	8	16	60	8	4
FTEMD-10-20-4C-75-H10-DS_ECO	10	20	75	10	4
FTEMD-12-25-4C-75-H12-DS_ECO	12	25	75	12	4
FTEMD-14-30-4C-75-H14-DS_ECO	14	30	75	14	4
FTEMD-16-30-4C-75-H16-DS_ECO	16	30	75	16	4
FTEMD-20-40-4C-100-H20-DS_ECO	20	40	100	20	4

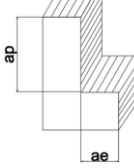
CÓDIGO DSDRILL	D	L1	L2	d	C
FTEMD-03-6-4C-75-H3-DS_ECO	3	6	75	3	4
FTEMD-04-8-4C-75-H4-DS_ECO	4	8	75	4	4
FTEMD-05-10-4C-75-H5-DS_ECO	5	10	75	5	4
FTEMD-06-12-4C-100-H6-DS_ECO	6	12	100	6	4
FTEMD-08-16-4C-100-H8-DS_ECO	8	16	100	8	4
FTEMD-10-20-4C-100-H10-DS_ECO	10	20	100	10	4
FTEMD-12-25-4C-100-H12-DS_ECO	12	25	100	12	4
FTEMD-14-30-4C-110-H14-DS_ECO	14	30	110	14	4
FTEMD-16-30-4C-110-H16-DS_ECO	16	30	110	16	4
FTEMD-20-40-4C-125-H20-DS_ECO	20	40	125	20	4

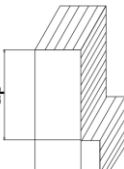


Referência de Dados de Corte - Linha DS_ECO



	MATERIAL	DUREZA	VC (m/min)	D											
				3	4	5	6	8	10	12	14	16	20	25	
				fz² (mm/z)											
	1.1730	640 N/mm²	180	0.019	0.025	0.031	0.037	0.050	0.062	0.075	0.088	0.100	0.125	0.150	
	1.2083	780 N/mm²	135	0.012	0.018	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.100	0.120	
	1.2085	1080 N/mm²	135	0.012	0.018	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.100	0.120	
	1.2162	660 N/mm²	160	0.019	0.025	0.031	0.037	0.050	0.062	0.075	0.088	0.100	0.125	0.125	
	1.2311	1080 N/mm²	150	0.017	0.022	0.027	0.033	0.044	0.055	0.066	0.077	0.088	0.110	0.140	
	1.2312	1080 N/mm²	160	0.017	0.022	0.027	0.033	0.044	0.055	0.066	0.077	0.088	0.110	0.140	
	1.2316	1010 N/mm²	135	0.012	0.018	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.100	0.120	
	1.2343	780 N/mm²	160	0.019	0.025	0.027	0.037	0.050	0.062	0.075	0.088	0.100	0.125	0.145	
	1.2379	780 N/mm²	135	0.012	0.018	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.100	0.120	
	1.2714HH	1350 N/mm²	100	0.012	0.018	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.100	0.120	
	1.2767	830 N/mm²	160	0.017	0.022	0.027	0.033	0.044	0.055	0.066	0.077	0.088	0.110	0.140	
	1.2842	775 N/mm²	160	0.017	0.022	0.027	0.033	0.044	0.055	0.066	0.077	0.088	0.110	0.140	
ae = 1 x D															
ap = 1 x D	Steel	1400 N/mm²	70	0.012	0.018	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.100	0.120	

	MATERIAL	DUREZA	VC (m/min)	D											
				3	4	5	6	8	10	12	14	16	20	25	
				fz² (mm/z)											
	1.1730	640 N/mm²	220	0.026	0.033	0.039	0.044	0.061	0.077	0.094	0.102	0.110	0.132	0.187	
	1.2083	780 N/mm²	145	0.018	0.023	0.026	0.030	0.041	0.053	0.064	0.070	0.075	0.090	0.128	
	1.2085	1080 N/mm²	145	0.018	0.023	0.026	0.030	0.041	0.053	0.064	0.070	0.075	0.090	0.128	
	1.2162	660 N/mm²	220	0.025	0.030	0.035	0.040	0.055	0.070	0.085	0.092	0.100	0.120	0.170	
	1.2311	1080 N/mm²	160	0.020	0.024	0.028	0.032	0.044	0.056	0.068	0.074	0.080	0.096	0.136	
	1.2312	1080 N/mm²	165	0.018	0.023	0.026	0.030	0.041	0.053	0.064	0.070	0.075	0.090	0.128	
	1.2316	1010 N/mm²	145	0.018	0.023	0.026	0.030	0.041	0.053	0.064	0.070	0.075	0.090	0.128	
	1.2343	780 N/mm²	175	0.025	0.030	0.035	0.040	0.055	0.070	0.085	0.092	0.100	0.120	0.170	
	1.2379	780 N/mm²	145	0.018	0.023	0.026	0.030	0.041	0.053	0.064	0.070	0.075	0.090	0.128	
	1.2714HH	1350 N/mm²	125	0.018	0.023	0.026	0.030	0.041	0.053	0.064	0.070	0.075	0.090	0.128	
	1.2767	830 N/mm²	165	0.026	0.029	0.033	0.038	0.052	0.067	0.081	0.088	0.095	0.114	0.162	
ae = 0.5 x D	1.2842	775 N/mm²	165	0.025	0.030	0.035	0.040	0.055	0.070	0.085	0.092	0.100	0.120	0.170	
ap = 1 x D	Steel	1400 N/mm²	110	0.015	0.017	0.019	0.022	0.030	0.039	0.047	0.050	0.055	0.066	0.094	

	MATERIAL	DUREZA	VC (m/min)	D											
				3	4	5	6	8	10	12	14	16	20	25	
				fz ² (mm/z)											
	1.1730	640 N/mm²	300	0.022	0.026	0.030	0.033	0.044	0.061	0.072	0.080	0.088	0.105	0.154	
	1.2083	780 N/mm²	175	0.015	0.018	0.020	0.023	0.030	0.041	0.049	0.055	0.060	0.071	0.105	
	1.2085	1080 N/mm²	175	0.015	0.018	0.020	0.023	0.030	0.041	0.049	0.055	0.060	0.071	0.105	
	1.2162	660 N/mm²	300	0.021	0.024	0.027	0.030	0.040	0.055	0.065	0.072	0.080	0.095	0.140	
	1.2311	1080 N/mm²	220	0.016	0.019	0.022	0.024	0.032	0.044	0.052	0.058	0.064	0.076	0.112	
	1.2312	1080 N/mm²	225	0.015	0.018	0.020	0.023	0.030	0.041	0.049	0.055	0.060	0.071	0.105	
	1.2316	1010 N/mm²	175	0.015	0.018	0.020	0.023	0.030	0.041	0.049	0.055	0.060	0.071	0.105	
	1.2343	780 N/mm²	240	0.021	0.024	0.027	0.030	0.040	0.055	0.065	0.072	0.080	0.095	0.140	
	1.2379	780 N/mm²	175	0.015	0.018	0.020	0.023	0.030	0.041	0.049	0.055	0.060	0.071	0.105	
	1.2714HH	1350 N/mm²	160	0.015	0.018	0.020	0.023	0.030	0.041	0.049	0.055	0.060	0.071	0.105	
	1.2767	830 N/mm²	225	0.020	0.023	0.026	0.029	0.038	0.052	0.062	0.070	0.076	0.090	0.133	
	1.2842	775 N/mm²	225	0.021	0.024	0.027	0.030	0.040	0.055	0.065	0.072	0.080	0.095	0.140	
ap = 0.1 x D	Steel	1400 N/mm²	140	0.012	0.014	0.016	0.018	0.024	0.033	0.039	0.044	0.048	0.057	0.084	
ap = 1.5 x D															

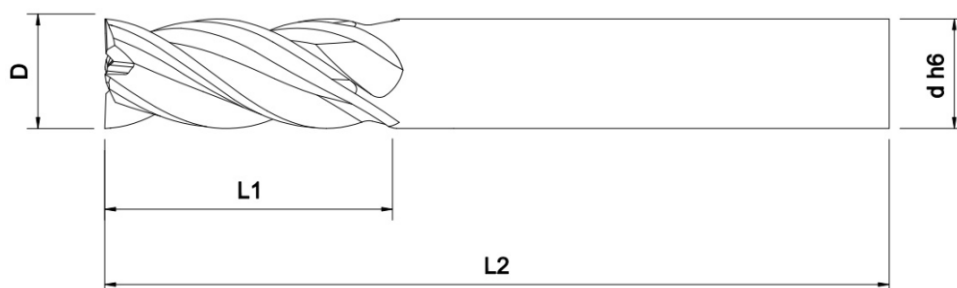


**Pensou em ferramentas,
consulte DSDrill.**



DS_MEGA

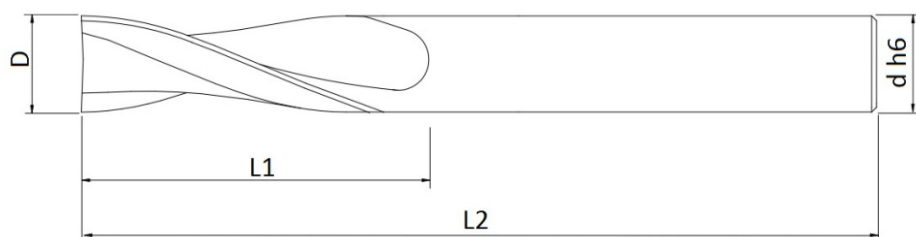
Topo Reto



CÓDIGO DSDRILL	D	L1	L2	d	C
FTRMD-03-8-4C-50-H3-DS_MEGA	3	8	50	3	4
FTRMD-04-10-4C-50-H4-DS_MEGA	4	10	50	4	4
FTRMD-05-13-4C-50-H5-DS_MEGA	5	13	50	5	4
FTRMD-06-15-4C-50-H6-DS_MEGA	6	15	50	6	4
FTRMD-08-20-4C-60-H8-DS_MEGA	8	20	60	8	4
FTRMD-10-25-4C-75-H10-DS_MEGA	10	25	75	10	4
FTRMD-12-30-4C-75-H12-DS_MEGA	12	30	75	12	4
FTRMD-14-45-4C-100-H14-DS_MEGA	14	45	100	14	4
FTRMD-16-45-4C-100-H16-DS_MEGA	16	45	100	16	4
FTRMD-20-45-4C-100-H20-DS_MEGA	20	45	100	20	4
FTRMD-25-45-4C-100-H25-DS_MEGA	25	45	100	25	4

CÓDIGO DSDRILL	D	L1	L2	d	C
FTRMD-03-12-4C-75-H3-DS_MEGA	3	12	75	3	4
FTRMD-04-12-4C-75-H4-DS_MEGA	4	12	75	4	4
FTRMD-05-15-4C-75-H5-DS_MEGA	5	15	75	5	4
FTRMD-06-15-4C-100-H6-DS_MEGA	6	15	100	6	4
FTRMD-08-20-4C-100-H8-DS_MEGA	8	20	100	8	4
FTRMD-10-25-4C-100-H10-DS_MEGA	10	25	100	10	4
FTRMD-12-30-4C-100-H12-DS_MEGA	12	30	100	12	4
FTRMD-14-45-4C-125-H14-DS_MEGA	14	45	125	14	4
FTRMD-16-45-4C-125-H16-DS_MEGA	16	45	125	16	4
FTRMD-20-45-4C-125-H20-DS_MEGA	20	45	125	20	4
FTRMD-25-45-4C-125-H25-DS_MEGA	25	45	125	25	4

Topo Reto



CÓDIGO DSDRILL	D	L1	L2	d	C
FTRMD-03-8-2C-50-H3-DS_MEGA	3	8	50	3	2
FTRMD-04-10-2C-50-H4-DS_MEGA	4	10	50	4	2
FTRMD-05-13-2C-50-H5-DS_MEGA	5	13	50	5	2
FTRMD-06-15-2C-50-H6-DS_MEGA	6	15	50	6	2
FTRMD-08-20-2C-60-H8-DS_MEGA	8	20	60	8	2
FTRMD-10-25-2C-75-H10-DS_MEGA	10	25	75	10	2
FTRMD-12-30-2C-75-H12-DS_MEGA	12	30	75	12	2
FTRMD-14-45-2C-100-H14-DS_MEGA	14	45	100	14	2
FTRMD-16-45-2C-100-H16-DS_MEGA	16	45	100	16	2
FTRMD-20-45-2C-100-H20-DS_MEGA	20	45	100	20	2
FTRMD-25-45-2C-100-H25-DS_MEGA	25	45	100	25	2

CÓDIGO DSDRILL	D	L1	L2	d	C
FTRMD-03-12-2C-75-H3-DS_MEGA	3	12	75	3	2
FTRMD-04-12-2C-75-H4-DS_MEGA	4	12	75	4	2
FTRMD-05-15-2C-75-H5-DS_MEGA	5	15	75	5	2
FTRMD-06-15-2C-100-H6-DS_MEGA	6	15	100	6	2
FTRMD-08-20-2C-100-H8-DS_MEGA	8	20	100	8	2
FTRMD-10-25-2C-100-H10-DS_MEGA	10	25	100	10	2
FTRMD-12-30-2C-100-H12-DS_MEGA	12	30	100	12	2
FTRMD-14-45-2C-125-H14-DS_MEGA	14	45	125	14	2
FTRMD-16-45-2C-125-H16-DS_MEGA	16	45	125	16	2
FTRMD-20-45-2C-125-H20-DS_MEGA	20	45	125	20	2
FTRMD-25-45-2C-125-H25-DS_MEGA	25	45	125	25	2

**Pensou em ferramentas,
consulte DSDrill.**



DS_MEGA

Topo Toroidal Raio 0,5mm

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3-25

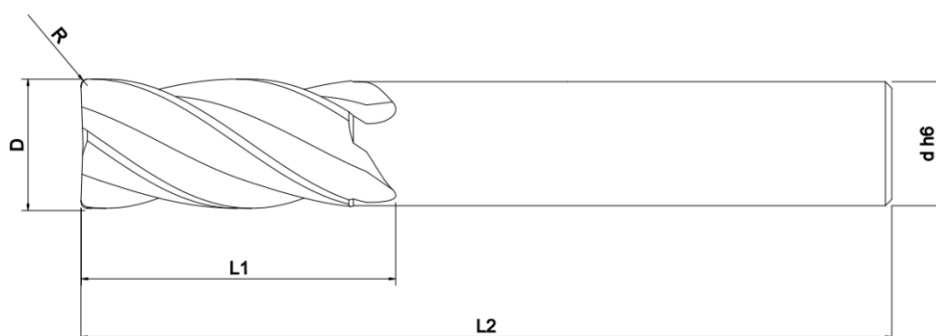
4C

AlTiN
TiSiXN

38°

Passo
Dif.

R0.5



CÓDIGO DSDRILL	D	L1	L2	d	C	R
FTTMD-03-R0.5-8-4C-50-H3-DS_MEGA	3	8	50	3	4	0.5
FTTMD-04-R0.5-10-4C-50-H4-DS_MEGA	4	10	50	4	4	0.5
FTTMD-05-R0.5-13-4C-50-H5-DS_MEGA	5	13	50	5	4	0.5
FTTMD-06-R0.5-15-4C-50-H6-DS_MEGA	6	15	50	6	4	0.5
FTTMD-08-R0.5-20-4C-60-H8-DS_MEGA	8	20	60	8	4	0.5
FTTMD-10-R0.5-25-4C-75-H10-DS_MEGA	10	25	75	10	4	0.5
FTTMD-12-R0.5-30-4C-75-H12-DS_MEGA	12	30	75	12	4	0.5
FTTMD-14-R0.5-45-4C-100-H14-DS_MEGA	14	45	100	14	4	0.5
FTTMD-16-R0.5-45-4C-100-H16-DS_MEGA	16	45	100	16	4	0.5
FTTMD-20-R0.5-45-4C-100-H20-DS_MEGA	20	45	100	20	4	0.5
FTTMD-25-R0.5-45-4C-100-H25-DS_MEGA	25	45	100	25	4	0.5

CÓDIGO DSDRILL	D	L1	L2	d	C	R
FTTMD-03-R0.5-12-4C-75-H3-DS_MEGA	3	12	75	3	4	0.5
FTTMD-04-R0.5-12-4C-75-H4-DS_MEGA	4	12	75	4	4	0.5
FTTMD-05-R0.5-15-4C-75-H5-DS_MEGA	5	15	75	5	4	0.5
FTTMD-06-R0.5-15-4C-100-H6-DS_MEGA	6	15	100	6	4	0.5
FTTMD-08-R0.5-20-4C-100-H8-DS_MEGA	8	20	100	8	4	0.5
FTTMD-10-R0.5-25-4C-100-H10-DS_MEGA	10	25	100	10	4	0.5
FTTMD-12-R0.5-30-4C-100-H12-DS_MEGA	12	30	100	12	4	0.5
FTTMD-14-R0.5-45-4C-125-H14-DS_MEGA	14	45	125	14	4	0.5
FTTMD-16-R0.5-45-4C-125-H16-DS_MEGA	16	45	125	16	4	0.5
FTTMD-20-R0.5-45-4C-125-H20-DS_MEGA	20	45	125	20	4	0.5
FTTMD-25-R0.5-45-4C-125-H25-DS_MEGA	25	45	125	25	4	0.5

Topo Toroidal Raio 1,0mm

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8-25

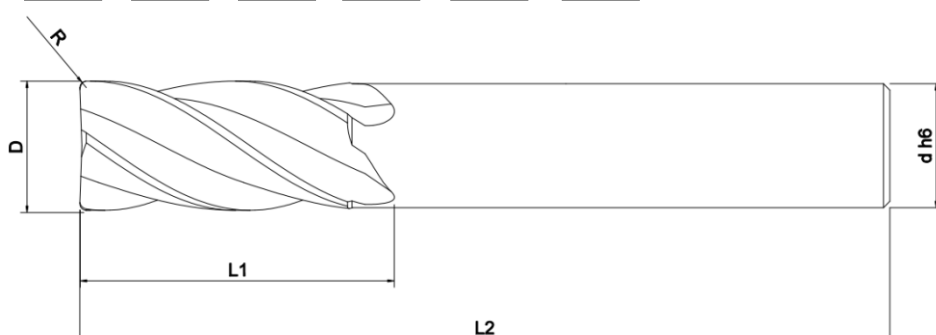
4C

AlTiN
TiSiXN

38°

Passo
Dif.

R1.0



CÓDIGO DSDRILL	D	L1	L2	d	C	R
FTTMD-08-R1-20-4C-60-H8-DS_MEGA	8	20	60	8	4	1
FTTMD-10-R1-25-4C-75-H10-DS_MEGA	10	25	75	10	4	1
FTTMD-12-R1-30-4C-75-H12-DS_MEGA	12	30	75	12	4	1
FTTMD-14-R1-45-4C-100-H14-DS_MEGA	14	45	100	14	4	1
FTTMD-16-R1-45-4C-100-H16-DS_MEGA	16	45	100	16	4	1
FTTMD-20-R1-45-4C-100-H20-DS_MEGA	20	45	100	20	4	1
FTTMD-25-R1-45-4C-100-H25-DS_MEGA	25	45	100	25	4	1

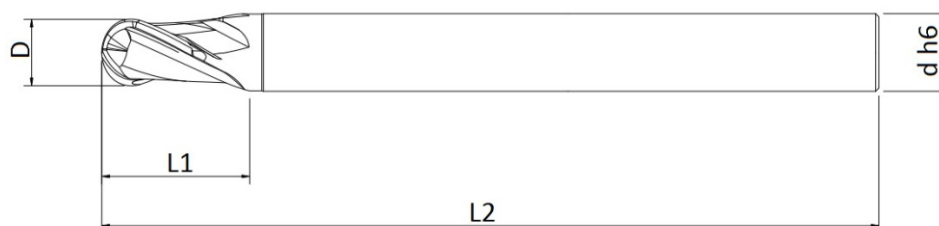
CÓDIGO DSDRILL	D	L1	L2	d	C	R
FTTMD-08-R1-20-4C-100-H8-DS_MEGA	8	20	100	8	4	1
FTTMD-10-R1-25-4C-100-H10-DS_MEGA	10	25	100	10	4	1
FTTMD-12-R1-30-4C-100-H12-DS_MEGA	12	30	100	12	4	1
FTTMD-14-R1-45-4C-125-H14-DS_MEGA	14	45	125	14	4	1
FTTMD-16-R1-45-4C-125-H16-DS_MEGA	16	45	125	16	4	1
FTTMD-20-R1-45-4C-125-H20-DS_MEGA	20	45	125	20	4	1
FTTMD-25-R1-45-4C-125-H25-DS_MEGA	25	45	125	25	4	1

**Pensou em ferramentas,
consulte DSDrill.**



DS_MEGA

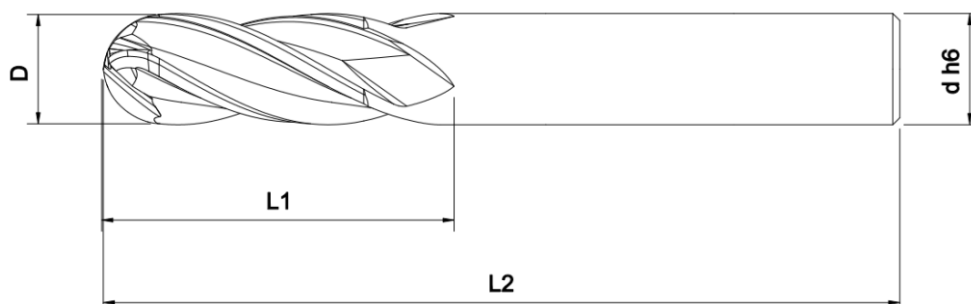
Topo Esférico



CÓDIGO DSDRILL	D	L1	L2	d	C
FTEMD-03-6-2C-50-H3-DS_MEGA	3	6	50	3	2
FTEMD-04-8-2C-50-H4-DS_MEGA	4	8	50	4	2
FTEMD-05-10-2C-50-H5-DS_MEGA	5	10	50	5	2
FTEMD-06-12-2C-50-H6-DS_MEGA	6	12	50	6	2
FTEMD-08-16-2C-60-H8-DS_MEGA	8	16	60	8	2
FTEMD-10-20-2C-75-H10-DS_MEGA	10	20	75	10	2
FTEMD-12-25-2C-75-H12-DS_MEGA	12	25	75	12	2
FTEMD-14-30-2C-75-H14-DS_MEGA	14	30	75	14	2
FTEMD-16-30-2C-75-H16-DS_MEGA	16	30	75	16	2
FTEMD-20-40-2C-100-H20-DS_MEGA	20	40	100	20	2

CÓDIGO DSDRILL	D	L1	L2	d	C
FTEMD-03-6-2C-75-H3-DS_MEGA	3	6	75	3	2
FTEMD-04-8-2C-75-H4-DS_MEGA	4	8	75	4	2
FTEMD-05-10-2C-75-H5-DS_MEGA	5	10	75	5	2
FTEMD-06-12-2C-100-H6-DS_MEGA	6	12	100	6	2
FTEMD-08-16-2C-100-H8-DS_MEGA	8	16	100	8	2
FTEMD-10-20-2C-100-H10-DS_MEGA	10	20	100	10	2
FTEMD-12-25-2C-100-H12-DS_MEGA	12	25	100	12	2
FTEMD-14-30-2C-110-H14-DS_MEGA	14	30	110	14	2
FTEMD-16-30-2C-110-H16-DS_MEGA	16	30	110	16	2
FTEMD-20-40-2C-125-H20-DS_MEGA	20	40	125	20	2

Topo Esférico



CÓDIGO DSDRILL	D	L1	L2	d	C
FTEMD-03-6-4C-50-H3-DS_MEGA	3	6	50	3	4
FTEMD-04-8-4C-50-H4-DS_MEGA	4	8	50	4	4
FTEMD-05-10-4C-50-H5-DS_MEGA	5	10	50	5	4
FTEMD-06-12-4C-50-H6-DS_MEGA	6	12	50	6	4
FTEMD-08-16-4C-60-H8-DS_MEGA	8	16	60	8	4
FTEMD-10-20-4C-75-H10-DS_MEGA	10	20	75	10	4
FTEMD-12-25-4C-75-H12-DS_MEGA	12	25	75	12	4
FTEMD-14-30-4C-75-H14-DS_MEGA	14	30	75	14	4
FTEMD-16-30-4C-75-H16-DS_MEGA	16	30	75	16	4
FTEMD-20-40-4C-100-H20-DS_MEGA	20	40	100	20	4

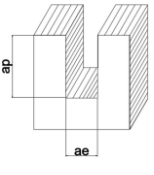
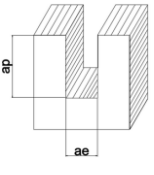
CÓDIGO DSDRILL	D	L1	L2	d	C
FTEMD-03-6-4C-75-H3-DS_MEGA	3	6	75	3	4
FTEMD-04-8-4C-75-H4-DS_MEGA	4	8	75	4	4
FTEMD-05-10-4C-75-H5-DS_MEGA	5	10	75	5	4
FTEMD-06-12-4C-100-H6-DS_MEGA	6	12	100	6	4
FTEMD-08-16-4C-100-H8-DS_MEGA	8	16	100	8	4
FTEMD-10-20-4C-100-H10-DS_MEGA	10	20	100	10	4
FTEMD-12-25-4C-100-H12-DS_MEGA	12	25	100	12	4
FTEMD-14-30-4C-110-H14-DS_MEGA	14	30	110	14	4
FTEMD-16-30-4C-110-H16-DS_MEGA	16	30	110	16	4
FTEMD-20-40-4C-125-H20-DS_MEGA	20	40	125	20	4

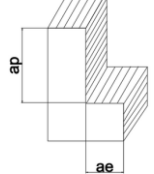
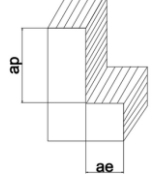
**Pensou em ferramentas,
consulte DSDrill.**

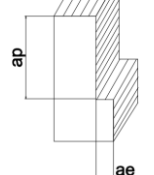
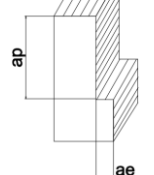


Referência de Dados de Corte - Linha DS_MEGA



	MATERIAL	DUREZA	VC (m/min)	D										
				3	4	5	6	8	10	12	14	16	20	25
				fz ² (mm/z)										
	1.2083	52 HRC	60	0.008	0.010	0.012	0.014	0.018	0.024	0.028	0.032	0.036	0.040	0.046
	1.2162	52 HRC	70	0.008	0.010	0.012	0.014	0.018	0.024	0.028	0.032	0.036	0.040	0.046
	1.2343	52 HRC	70	0.008	0.010	0.012	0.014	0.018	0.024	0.028	0.032	0.036	0.040	0.046
	1.2379	60 HRC	-	-	-	-	-	-	-	-	-	-	-	-
	1.2714HH	43 HRC	60	0.012	0.016	0.018	0.020	0.025	0.030	0.035	0.040	0.045	0.055	0.070
	1.2767	52 HRC	70	0.008	0.010	0.012	0.014	0.018	0.024	0.028	0.032	0.036	0.040	0.046
ae = 1 x D	1.2842	60 HRC	-	-	-	-	-	-	-	-	-	-	-	-
ap = 1 x D	Steel	1400 N/mm ²	60	0.012	0.016	0.018	0.020	0.025	0.030	0.035	0.040	0.045	0.055	0.070

	MATERIAL	DUREZA	VC (m/min)	D										
				3	4	5	6	8	10	12	14	16	20	25
				fz ² (mm/z)										
	1.2083	52 HRC	90	0.012	0.014	0.018	0.022	0.030	0.039	0.047	0.050	0.055	0.066	0.080
	1.2162	52 HRC	110	0.012	0.014	0.018	0.022	0.030	0.039	0.047	0.050	0.055	0.066	0.080
	1.2343	52 HRC	110	0.012	0.014	0.018	0.022	0.030	0.039	0.047	0.050	0.055	0.066	0.080
	1.2379	60 HRC	-	-	-	-	-	-	-	-	-	-	-	-
	1.2714HH	43 HRC	90	0.015	0.018	0.020	0.025	0.034	0.042	0.050	0.056	0.060	0.070	0.085
	1.2767	52 HRC	110	0.012	0.014	0.018	0.022	0.030	0.039	0.047	0.050	0.055	0.066	0.080
ae = 0.5 x D	1.2842	60 HRC	-	-	-	-	-	-	-	-	-	-	-	-
ap = 1 x D	Steel	1400 N/mm ²	90	0.015	0.018	0.020	0.025	0.034	0.042	0.050	0.056	0.060	0.070	0.085

	MATERIAL	DUREZA	VC (m/min)	D										
				3	4	5	6	8	10	12	14	16	20	25
				fz ² (mm/z)										
	1.2083	52 HRC	100	0.010	0.012	0.015	0.018	0.024	0.033	0.039	0.044	0.048	0.057	0.070
	1.2162	52 HRC	140	0.010	0.012	0.015	0.018	0.024	0.033	0.039	0.044	0.048	0.057	0.070
	1.2343	52 HRC	140	0.010	0.012	0.015	0.018	0.024	0.033	0.039	0.044	0.048	0.057	0.070
	1.2379	60 HRC	100	0.008	0.010	0.012	0.015	0.025	0.030	0.035	0.040	0.045	0.060	0.075
	1.2714HH	43 HRC	130	0.013	0.015	0.020	0.025	0.035	0.045	0.055	0.060	0.065	0.075	0.090
	1.2767	52 HRC	140	0.010	0.012	0.015	0.018	0.024	0.033	0.039	0.044	0.048	0.057	0.070
ae = 0.05 x D	1.2842	60 HRC	110	0.008	0.010	0.012	0.015	0.025	0.030	0.035	0.040	0.045	0.060	0.075
ap = 1.5 x D	Steel	1400 N/mm ²	130	0.013	0.015	0.020	0.025	0.035	0.045	0.055	0.060	0.065	0.075	0.090

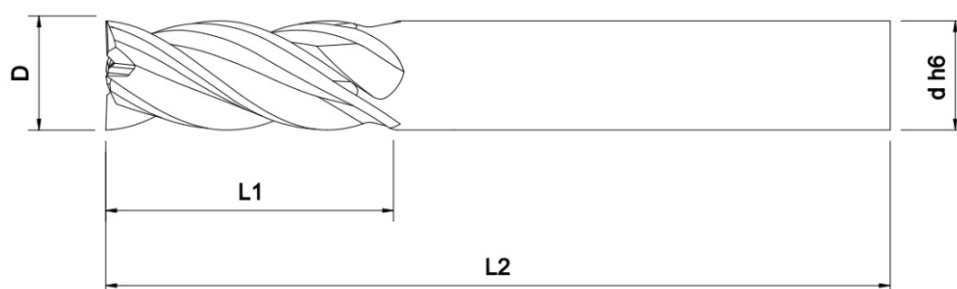


**Pensou em ferramentas,
consulte DSDrill.**



DS_POWER

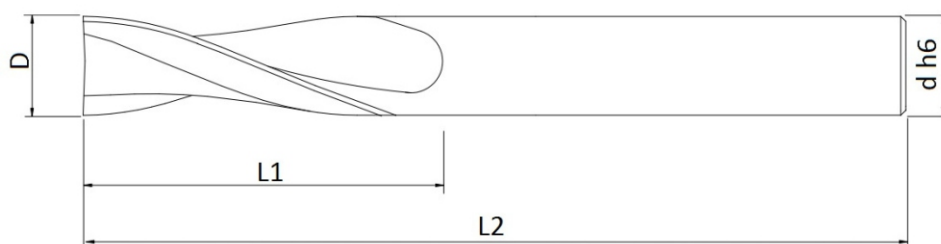
Topo Reto



CÓDIGO DSDRILL	D	L1	L2	d	C
FTRMD-03-8-4C-50-H3-DS_POWER	3	8	50	3	4
FTRMD-04-10-4C-50-H4-DS_POWER	4	10	50	4	4
FTRMD-05-13-4C-50-H5-DS_POWER	5	13	50	5	4
FTRMD-06-15-4C-50-H6-DS_POWER	6	15	50	6	4
FTRMD-08-20-4C-60-H8-DS_POWER	8	20	60	8	4
FTRMD-10-25-4C-75-H10-DS_POWER	10	25	75	10	4
FTRMD-12-30-4C-75-H12-DS_POWER	12	30	75	12	4
FTRMD-14-45-4C-100-H14-DS_POWER	14	45	100	14	4
FTRMD-16-45-4C-100-H16-DS_POWER	16	45	100	16	4
FTRMD-20-45-4C-100-H20-DS_POWER	20	45	100	20	4
FTRMD-25-45-4C-100-H25-DS_POWER	25	45	100	25	4

CÓDIGO DSDRILL	D	L1	L2	d	C
FTRMD-03-12-4C-75-H3-DS_POWER	3	12	75	3	4
FTRMD-04-12-4C-75-H4-DS_POWER	4	12	75	4	4
FTRMD-05-15-4C-75-H5-DS_POWER	5	15	75	5	4
FTRMD-06-15-4C-100-H6-DS_POWER	6	15	100	6	4
FTRMD-08-20-4C-100-H8-DS_POWER	8	20	100	8	4
FTRMD-10-25-4C-100-H10-DS_POWER	10	25	100	10	4
FTRMD-12-30-4C-100-H12-DS_POWER	12	30	100	12	4
FTRMD-14-45-4C-125-H14-DS_POWER	14	45	125	14	4
FTRMD-16-45-4C-125-H16-DS_POWER	16	45	125	16	4
FTRMD-20-45-4C-125-H20-DS_POWER	20	45	125	20	4
FTRMD-25-45-4C-125-H25-DS_POWER	25	45	125	25	4

Topo Reto



CÓDIGO DSDRILL	D	L1	L2	d	C
FTRMD-03-8-2C-50-H3-DS_POWER	3	8	50	3	2
FTRMD-04-10-2C-50-H4-DS_POWER	4	10	50	4	2
FTRMD-05-13-2C-50-H5-DS_POWER	5	13	50	5	2
FTRMD-06-15-2C-50-H6-DS_POWER	6	15	50	6	2
FTRMD-08-20-2C-60-H8-DS_POWER	8	20	60	8	2
FTRMD-10-25-2C-75-H10-DS_POWER	10	25	75	10	2
FTRMD-12-30-2C-75-H12-DS_POWER	12	30	75	12	2
FTRMD-14-45-2C-100-H14-DS_POWER	14	45	100	14	2
FTRMD-16-45-2C-100-H16-DS_POWER	16	45	100	16	2
FTRMD-20-45-2C-100-H20-DS_POWER	20	45	100	20	2
FTRMD-25-45-2C-100-H25-DS_POWER	25	45	100	25	2

CÓDIGO DSDRILL	D	L1	L2	d	C
FTRMD-03-12-2C-75-H3-DS_POWER	3	12	75	3	2
FTRMD-04-12-2C-75-H4-DS_POWER	4	12	75	4	2
FTRMD-05-15-2C-75-H5-DS_POWER	5	15	75	5	2
FTRMD-06-15-2C-100-H6-DS_POWER	6	15	100	6	2
FTRMD-08-20-2C-100-H8-DS_POWER	8	20	100	8	2
FTRMD-10-25-2C-100-H10-DS_POWER	10	25	100	10	2
FTRMD-12-30-2C-100-H12-DS_POWER	12	30	100	12	2
FTRMD-14-45-2C-125-H14-DS_POWER	14	45	125	14	2
FTRMD-16-45-2C-125-H16-DS_POWER	16	45	125	16	2
FTRMD-20-45-2C-125-H20-DS_POWER	20	45	125	20	2
FTRMD-25-45-2C-125-H25-DS_POWER	25	45	125	25	2

**Pensou em ferramentas,
consulte DSdrill.**

Topo Toroidal Raio 0,5mm

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3-25

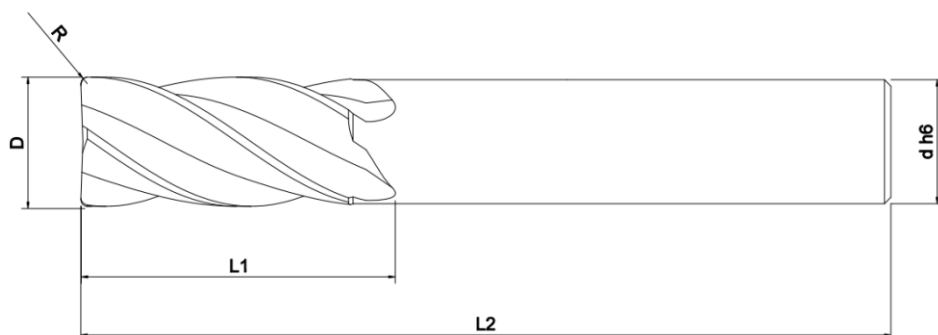
4C

AlCrN

30°



R0.5



CÓDIGO DSDRILL	D	L1	L2	d	C	R
FTTMD-03-R0.5-8-4C-50-H3-DS_POWER	3	8	50	3	4	0.5
FTTMD-04-R0.5-10-4C-50-H4-DS_POWER	4	10	50	4	4	0.5
FTTMD-05-R0.5-13-4C-50-H5-DS_POWER	5	13	50	5	4	0.5
FTTMD-06-R0.5-15-4C-50-H6-DS_POWER	6	15	50	6	4	0.5
FTTMD-08-R0.5-20-4C-60-H8-DS_POWER	8	20	60	8	4	0.5
FTTMD-10-R0.5-25-4C-75-H10-DS_POWER	10	25	75	10	4	0.5
FTTMD-12-R0.5-30-4C-75-H12-DS_POWER	12	30	75	12	4	0.5
FTTMD-14-R0.5-45-4C-100-H14-DS_POWER	14	45	100	14	4	0.5
FTTMD-16-R0.5-45-4C-100-H16-DS_POWER	16	45	100	16	4	0.5
FTTMD-20-R0.5-45-4C-100-H20-DS_POWER	20	45	100	20	4	0.5
FTTMD-25-R0.5-45-4C-100-H25-DS_POWER	25	45	100	25	4	0.5

CÓDIGO DSDRILL	D	L1	L2	d	C	R
FTTMD-03-R0.5-12-4C-75-H3-DS_POWER	3	12	75	3	4	0.5
FTTMD-04-R0.5-12-4C-75-H4-DS_POWER	4	12	75	4	4	0.5
FTTMD-05-R0.5-15-4C-75-H5-DS_POWER	5	15	75	5	4	0.5
FTTMD-06-R0.5-15-4C-100-H6-DS_POWER	6	15	100	6	4	0.5
FTTMD-08-R0.5-20-4C-100-H8-DS_POWER	8	20	100	8	4	0.5
FTTMD-10-R0.5-25-4C-100-H10-DS_POWER	10	25	100	10	4	0.5
FTTMD-12-R0.5-30-4C-100-H12-DS_POWER	12	30	100	12	4	0.5
FTTMD-14-R0.5-45-4C-125-H14-DS_POWER	14	45	125	14	4	0.5
FTTMD-16-R0.5-45-4C-125-H16-DS_POWER	16	45	125	16	4	0.5
FTTMD-20-R0.5-45-4C-125-H20-DS_POWER	20	45	125	20	4	0.5
FTTMD-25-R0.5-45-4C-125-H25-DS_POWER	25	45	125	25	4	0.5

Topo Toroidal Raio 1,0mm

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8-25

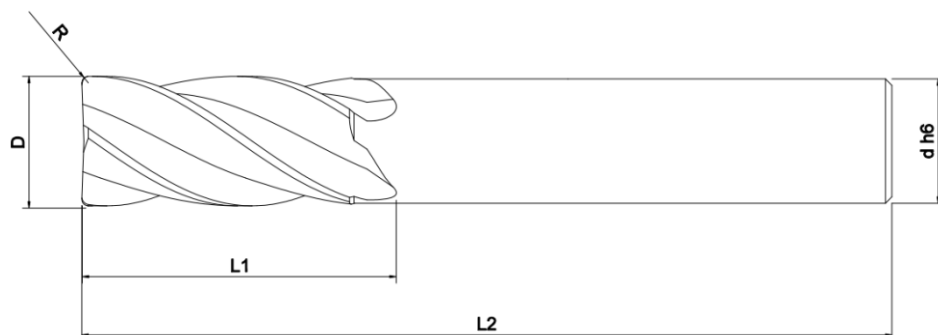
4C

AlCrN

30°



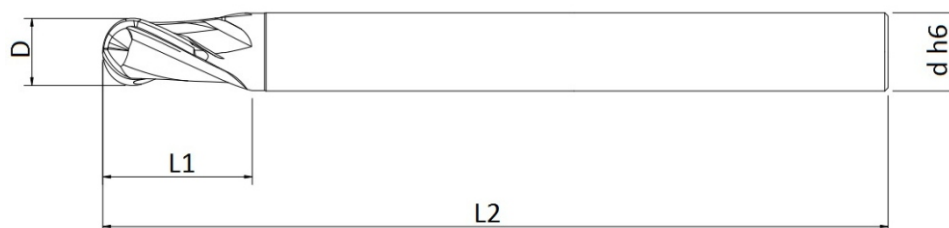
R1.0



CÓDIGO DSDRILL	D	L1	L2	d	C	R
FTTMD-08-R1-20-4C-60-H8-DS_POWER	8	20	60	8	4	1
FTTMD-10-R1-25-4C-75-H10-DS_POWER	10	25	75	10	4	1
FTTMD-12-R1-30-4C-75-H12-DS_POWER	12	30	75	12	4	1
FTTMD-14-R1-45-4C-100-H14-DS_POWER	14	45	100	14	4	1
FTTMD-16-R1-45-4C-100-H16-DS_POWER	16	45	100	16	4	1
FTTMD-20-R1-45-4C-100-H20-DS_POWER	20	45	100	20	4	1
FTTMD-25-R1-45-4C-100-H25-DS_POWER	25	45	100	25	4	1

CÓDIGO DSDRILL	D	L1	L2	d	C	R
FTTMD-08-R1-20-4C-100-H8-DS_POWER	8	20	100	8	4	1
FTTMD-10-R1-25-4C-100-H10-DS_POWER	10	25	100	10	4	1
FTTMD-12-R1-30-4C-100-H12-DS_POWER	12	30	100	12	4	1
FTTMD-14-R1-45-4C-125-H14-DS_POWER	14	45	125	14	4	1
FTTMD-16-R1-45-4C-125-H16-DS_POWER	16	45	125	16	4	1
FTTMD-20-R1-45-4C-125-H20-DS_POWER	20	45	125	20	4	1
FTTMD-25-R1-45-4C-125-H25-DS_POWER	25	45	125	25	4	1

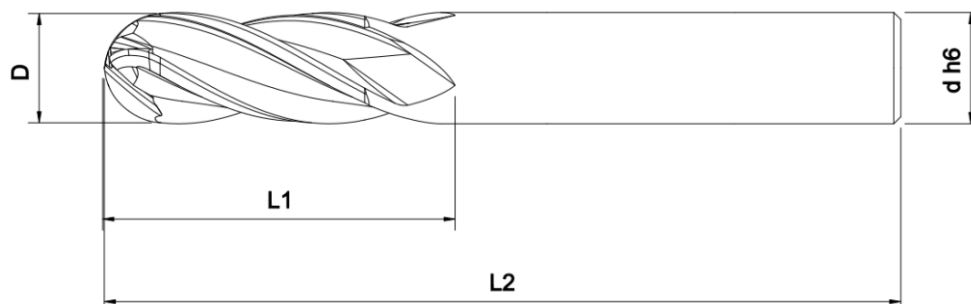
Topo Esférico



CÓDIGO DSDRILL	D	L1	L2	d	C
FTEMD-03-6-2C-50-H3-DS_POWER	3	6	50	3	2
FTEMD-04-8-2C-50-H4-DS_POWER	4	8	50	4	2
FTEMD-05-10-2C-50-H5-DS_POWER	5	10	50	5	2
FTEMD-06-12-2C-50-H6-DS_POWER	6	12	50	6	2
FTEMD-08-16-2C-60-H8-DS_POWER	8	16	60	8	2
FTEMD-10-20-2C-75-H10-DS_POWER	10	20	75	10	2
FTEMD-12-25-2C-75-H12-DS_POWER	12	25	75	12	2
FTEMD-14-30-2C-75-H14-DS_POWER	14	30	75	14	2
FTEMD-16-30-2C-75-H16-DS_POWER	16	30	75	16	2
FTEMD-20-40-2C-100-H20-DS_POWER	20	40	100	20	2

CÓDIGO DSDRILL	D	L1	L2	d	C
FTEMD-03-6-2C-75-H3-DS_POWER	3	6	75	3	2
FTEMD-04-8-2C-75-H4-DS_POWER	4	8	75	4	2
FTEMD-05-10-2C-75-H5-DS_POWER	5	10	75	5	2
FTEMD-06-12-2C-100-H6-DS_POWER	6	12	100	6	2
FTEMD-08-16-2C-100-H8-DS_POWER	8	16	100	8	2
FTEMD-10-20-2C-100-H10-DS_POWER	10	20	100	10	2
FTEMD-12-25-2C-100-H12-DS_POWER	12	25	100	12	2
FTEMD-14-30-2C-110-H14-DS_POWER	14	30	110	14	2
FTEMD-16-30-2C-110-H16-DS_POWER	16	30	110	16	2
FTEMD-20-40-2C-125-H20-DS_POWER	20	40	125	20	2

Topo Esférico



CÓDIGO DSDRILL	D	L1	L2	d	C
FTEMD-03-6-4C-50-H3-DS_POWER	3	6	50	3	4
FTEMD-04-8-4C-50-H4-DS_POWER	4	8	50	4	4
FTEMD-05-10-4C-50-H5-DS_POWER	5	10	50	5	4
FTEMD-06-12-4C-50-H6-DS_POWER	6	12	50	6	4
FTEMD-08-16-4C-60-H8-DS_POWER	8	16	60	8	4
FTEMD-10-20-4C-75-H10-DS_POWER	10	20	75	10	4
FTEMD-12-25-4C-75-H12-DS_POWER	12	25	75	12	4
FTEMD-14-30-4C-75-H14-DS_POWER	14	30	75	14	4
FTEMD-16-30-4C-75-H16-DS_POWER	16	30	75	16	4
FTEMD-20-40-4C-100-H20-DS_POWER	20	40	100	20	4

CÓDIGO DSDRILL	D	L1	L2	d	C
FTEMD-03-6-4C-75-H3-DS_POWER	3	6	75	3	4
FTEMD-04-8-4C-75-H4-DS_POWER	4	8	75	4	4
FTEMD-05-10-4C-75-H5-DS_POWER	5	10	75	5	4
FTEMD-06-12-4C-100-H6-DS_POWER	6	12	100	6	4
FTEMD-08-16-4C-100-H8-DS_POWER	8	16	100	8	4
FTEMD-10-20-4C-100-H10-DS_POWER	10	20	100	10	4
FTEMD-12-25-4C-100-H12-DS_POWER	12	25	100	12	4
FTEMD-14-30-4C-110-H14-DS_POWER	14	30	110	14	4
FTEMD-16-30-4C-110-H16-DS_POWER	16	30	110	16	4
FTEMD-20-40-4C-125-H20-DS_POWER	20	40	125	20	4



Referência de Dados de Corte - Linha DS_POWER



	MATERIAL	DUREZA	VC (m/min)	D										
				3	4	5	6	8	10	12	14	16	20	25
				fz ² (mm/z)										
ap = 0.04 x D	1.2083	52 HRC	80	0.007	0.009	0.01	0.012	0.015	0.02	0.025	0.028	0.032	0.04	0.05
	1.2162	52 HRC	120	0.007	0.009	0.01	0.012	0.015	0.02	0.025	0.028	0.032	0.04	0.05
	1.2343	52 HRC	120	0.007	0.009	0.01	0.012	0.015	0.02	0.025	0.028	0.032	0.04	0.05
	1.2379	60 HRC	75	0.007	0.009	0.01	0.012	0.015	0.02	0.025	0.028	0.032	0.04	0.05
	1.2767	52 HRC	75	0.007	0.009	0.01	0.012	0.015	0.02	0.025	0.028	0.032	0.04	0.05
	1.2842	60 HRC	70	0.007	0.009	0.01	0.012	0.015	0.02	0.025	0.028	0.032	0.04	0.05
	1.2714HH	43 HRC	130	0.007	0.009	0.01	0.012	0.015	0.02	0.025	0.028	0.032	0.04	0.05
	1.3343	64 HRC	55	0.007	0.009	0.01	0.012	0.015	0.02	0.025	0.028	0.032	0.04	0.05
	1.3344 PM	64 HRC	55	0.007	0.009	0.01	0.012	0.015	0.02	0.025	0.028	0.032	0.04	0.05
ap = 3 x D	M V10 PM	62 HRC	60	0.007	0.009	0.01	0.012	0.015	0.02	0.025	0.028	0.032	0.04	0.05
	M W10 PM	65 HRC	55	0.007	0.009	0.01	0.012	0.015	0.02	0.025	0.028	0.032	0.04	0.05

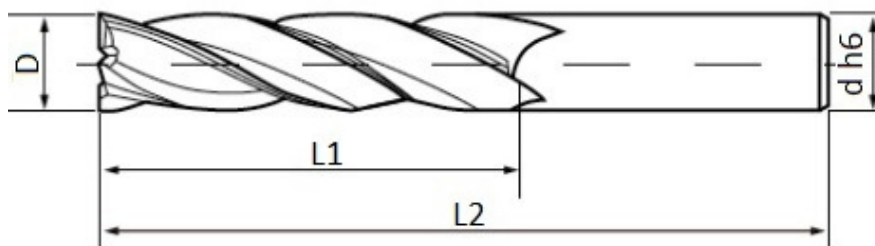
	MATERIAL	DUREZA	VC (m/min)	D										
				3	4	5	6	8	10	12	14	16	20	25
				fz ² (mm/z)										
ap = 0.04 x D	1.2083	52 HRC	80	0.009	0.011	0.013	0.015	0.018	0.022	0.028	0.032	0.035	0.042	0.052
	1.2162	52 HRC	120	0.009	0.011	0.013	0.015	0.018	0.022	0.028	0.032	0.035	0.042	0.052
	1.2343	52 HRC	120	0.009	0.011	0.013	0.015	0.018	0.022	0.028	0.032	0.035	0.042	0.052
	1.2379	60 HRC	75	0.009	0.011	0.013	0.015	0.018	0.022	0.028	0.032	0.035	0.042	0.052
	1.2767	52 HRC	75	0.009	0.011	0.013	0.015	0.018	0.022	0.028	0.032	0.035	0.042	0.052
	1.2842	60 HRC	70	0.009	0.011	0.013	0.015	0.018	0.022	0.028	0.032	0.035	0.042	0.052
	1.2714HH	43 HRC	130	0.009	0.011	0.013	0.015	0.018	0.022	0.028	0.032	0.035	0.042	0.052
	1.3343	64 HRC	55	0.009	0.011	0.013	0.015	0.018	0.022	0.028	0.032	0.035	0.042	0.052
	1.3344 PM	64 HRC	55	0.009	0.011	0.013	0.015	0.018	0.022	0.028	0.032	0.035	0.042	0.052
ap = 2 x D	M V10 PM	62 HRC	60	0.009	0.011	0.013	0.015	0.018	0.022	0.028	0.032	0.035	0.042	0.052
	M W10 PM	65 HRC	55	0.009	0.011	0.013	0.015	0.018	0.022	0.028	0.032	0.035	0.042	0.052

	MATERIAL	DUREZA	VC (m/min)	D										
				3	4	5	6	8	10	12	14	16	20	25
				fz ² (mm/z)										
ap = 0.04 x D	1.2083	52 HRC	80	0.01	0.012	0.015	0.017	0.02	0.025	0.03	0.035	0.038	0.46	0.055
	1.2162	52 HRC	120	0.01	0.012	0.015	0.017	0.02	0.025	0.03	0.035	0.038	0.46	0.055
	1.2343	52 HRC	120	0.01	0.012	0.015	0.017	0.02	0.025	0.03	0.035	0.038	0.46	0.055
	1.2379	60 HRC	75	0.01	0.012	0.015	0.017	0.02	0.025	0.03	0.035	0.038	0.46	0.055
	1.2767	52 HRC	75	0.01	0.012	0.015	0.017	0.02	0.025	0.03	0.035	0.038	0.46	0.055
	1.2842	60 HRC	70	0.01	0.012	0.015	0.017	0.02	0.025	0.03	0.035	0.038	0.46	0.055
	1.2714HH	43 HRC	130	0.01	0.012	0.015	0.017	0.02	0.025	0.03	0.035	0.038	0.46	0.055
	1.3343	64 HRC	55	0.01	0.012	0.015	0.017	0.02	0.025	0.03	0.035	0.038	0.46	0.055
	1.3344 PM	64 HRC	55	0.01	0.012	0.015	0.017	0.02	0.025	0.03	0.035	0.038	0.46	0.055
ap = 1.5 x D	M V10 PM	62 HRC	60	0.01	0.012	0.015	0.017	0.02	0.025	0.03	0.035	0.038	0.46	0.055
	M W10 PM	65 HRC	55	0.01	0.012	0.015	0.017	0.02	0.025	0.03	0.035	0.038	0.46	0.055



**Pensou em ferramentas,
consulte DSDrill.**

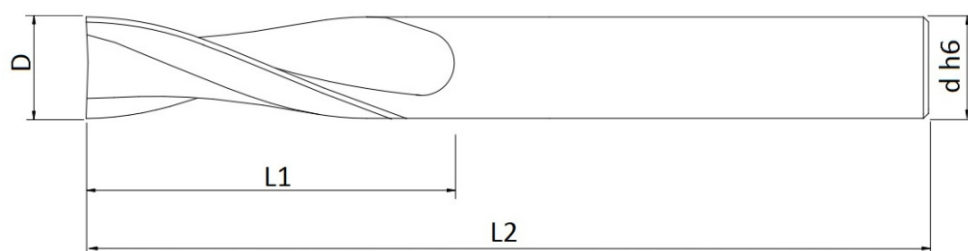
Topo Reto



CÓDIGO DSDRILL	D	L1	L2	d	C
FTRMD-03-8-3C-50-H3-DS_ALUM	3	8	50	3	3
FTRMD-04-10-3C-50-H4-DS_ALUM	4	10	50	4	3
FTRMD-05-13-3C-50-H5-DS_ALUM	5	13	50	5	3
FTRMD-06-15-3C-50-H6-DS_ALUM	6	15	50	6	3
FTRMD-08-20-3C-60-H8-DS_ALUM	8	20	60	8	3
FTRMD-10-25-3C-75-H10-DS_ALUM	10	25	75	10	3
FTRMD-12-30-3C-75-H12-DS_ALUM	12	30	75	12	3
FTRMD-14-45-3C-100-H14-DS_ALUM	14	45	100	14	3
FTRMD-16-45-3C-100-H16-DS_ALUM	16	45	100	16	3
FTRMD-20-45-3C-100-H20-DS_ALUM	20	45	100	20	3
FTRMD-25-45-3C-100-H25-DS_ALUM	25	45	100	25	3

CÓDIGO DSDRILL	D	L1	L2	d	C
FTRMD-03-12-3C-75-H3-DS_ALUM	3	12	75	3	3
FTRMD-04-12-3C-75-H4-DS_ALUM	4	12	75	4	3
FTRMD-05-15-3C-75-H5-DS_ALUM	5	15	75	5	3
FTRMD-06-15-3C-100-H6-DS_ALUM	6	15	100	6	3
FTRMD-08-20-3C-100-H8-DS_ALUM	8	20	100	8	3
FTRMD-10-25-3C-100-H10-DS_ALUM	10	25	100	10	3
FTRMD-12-30-3C-100-H12-DS_ALUM	12	30	100	12	3
FTRMD-14-45-3C-125-H14-DS_ALUM	14	45	125	14	3
FTRMD-16-45-3C-125-H16-DS_ALUM	16	45	125	16	3
FTRMD-20-45-3C-125-H20-DS_ALUM	20	45	125	20	3
FTRMD-25-45-3C-125-H25-DS_ALUM	25	45	125	25	3

Topo Reto



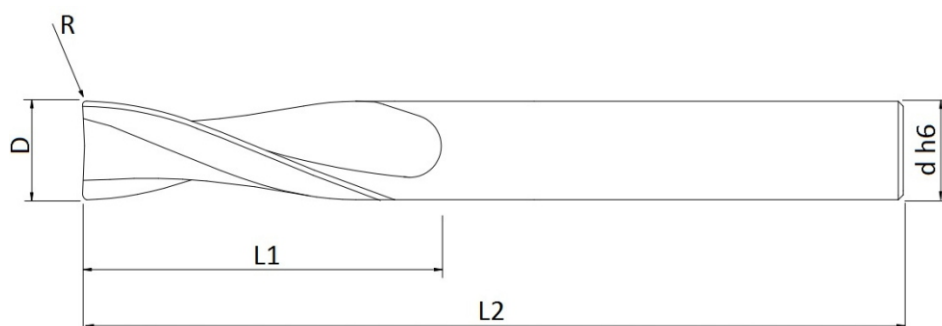
CÓDIGO DSDRILL	D	L1	L2	d	C
FTRMD-03-8-2C-50-H3-DS_ALUM	3	8	50	3	2
FTRMD-04-10-2C-50-H4-DS_ALUM	4	10	50	4	2
FTRMD-05-13-2C-50-H5-DS_ALUM	5	13	50	5	2
FTRMD-06-15-2C-50-H6-DS_ALUM	6	15	50	6	2
FTRMD-08-20-2C-60-H8-DS_ALUM	8	20	60	8	2
FTRMD-10-25-2C-75-H10-DS_ALUM	10	25	75	10	2
FTRMD-12-30-2C-75-H12-DS_ALUM	12	30	75	12	2
FTRMD-14-45-2C-100-H14-DS_ALUM	14	45	100	14	2
FTRMD-16-45-2C-100-H16-DS_ALUM	16	45	100	16	2
FTRMD-20-45-2C-100-H20-DS_ALUM	20	45	100	20	2
FTRMD-25-45-2C-100-H25-DS_ALUM	25	45	100	25	2

CÓDIGO DSDRILL	D	L1	L2	d	C
FTRMD-03-12-2C-75-H3-DS_ALUM	3	12	75	3	2
FTRMD-04-12-2C-75-H4-DS_ALUM	4	12	75	4	2
FTRMD-05-15-2C-75-H5-DS_ALUM	5	15	75	5	2
FTRMD-06-15-2C-100-H6-DS_ALUM	6	15	100	6	2
FTRMD-08-20-2C-100-H8-DS_ALUM	8	20	100	8	2
FTRMD-10-25-2C-100-H10-DS_ALUM	10	25	100	10	2
FTRMD-12-30-2C-100-H12-DS_ALUM	12	30	100	12	2
FTRMD-14-45-2C-125-H14-DS_ALUM	14	45	125	14	2
FTRMD-16-45-2C-125-H16-DS_ALUM	16	45	125	16	2
FTRMD-20-45-2C-125-H20-DS_ALUM	20	45	125	20	2
FTRMD-25-45-2C-125-H25-DS_ALUM	25	45	125	25	2



DS_ALUM

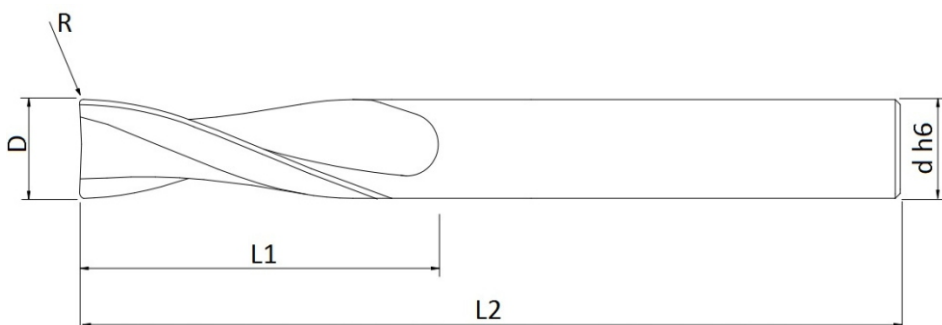
Topo Toroidal Raio 0,5mm



CÓDIGO DSDRILL	D	L1	L2	d	C	R
FTTMD-03-R0.5-8-2C-50-H3-DS_ALUM	3	8	50	3	2	0.5
FTTMD-04-R0.5-10-2C-50-H4-DS_ALUM	4	10	50	4	2	0.5
FTTMD-05-R0.5-13-2C-50-H5-DS_ALUM	5	13	50	5	2	0.5
FTTMD-06-R0.5-15-2C-50-H6-DS_ALUM	6	15	50	6	2	0.5
FTTMD-08-R0.5-20-2C-60-H8-DS_ALUM	8	20	60	8	2	0.5
FTTMD-10-R0.5-25-2C-75-H10-DS_ALUM	10	25	75	10	2	0.5
FTTMD-12-R0.5-30-2C-75-H12-DS_ALUM	12	30	75	12	2	0.5
FTTMD-14-R0.5-45-2C-100-H14-DS_ALUM	14	45	100	14	2	0.5
FTTMD-16-R0.5-45-2C-100-H16-DS_ALUM	16	45	100	16	2	0.5
FTTMD-20-R0.5-45-2C-100-H20-DS_ALUM	20	45	100	20	2	0.5
FTTMD-25-R0.5-45-2C-100-H25-DS_ALUM	25	45	100	25	2	0.5

CÓDIGO DSDRILL	D	L1	L2	d	C	R
FTTMD-03-R0.5-12-2C-75-H3-DS_POWER	3	12	75	3	2	0.5
FTTMD-04-R0.5-12-2C-75-H4-DS_POWER	4	12	75	4	2	0.5
FTTMD-05-R0.5-15-2C-75-H5-DS_POWER	5	15	75	5	2	0.5
FTTMD-06-R0.5-15-2C-100-H6-DS_POWER	6	15	100	6	2	0.5
FTTMD-08-R0.5-20-2C-100-H8-DS_POWER	8	20	100	8	2	0.5
FTTMD-10-R0.5-25-2C-100-H10-DS_POWER	10	25	100	10	2	0.5
FTTMD-12-R0.5-30-2C-100-H12-DS_POWER	12	30	100	12	2	0.5
FTTMD-14-R0.5-45-2C-125-H14-DS_POWER	14	45	125	14	2	0.5
FTTMD-16-R0.5-45-2C-125-H16-DS_POWER	16	45	125	16	2	0.5
FTTMD-20-R0.5-45-2C-125-H20-DS_POWER	20	45	125	20	2	0.5
FTTMD-25-R0.5-45-2C-125-H25-DS_POWER	25	45	125	25	2	0.5

Topo Toroidal Raio 1,0mm



CÓDIGO DSDRILL	D	L1	L2	d	C	R
FTTMD-08-R1-20-2C-100-H8-DS_ALUM	8	20	60	8	2	1
FTTMD-10-R1-25-2C-75-H10-DS_ALUM	10	25	75	10	2	1
FTTMD-12-R1-30-2C-75-H12-DS_ALUM	12	30	75	12	2	1
FTTMD-14-R1-45-2C-100-H14-DS_ALUM	14	45	100	14	2	1
FTTMD-16-R1-45-2C-100-H16-DS_ALUM	16	45	100	16	2	1
FTTMD-20-R1-45-2C-100-H20-DS_ALUM	20	45	100	20	2	1
FTTMD-25-R1-45-2C-100-H25-DS_ALUM	25	45	100	25	2	1

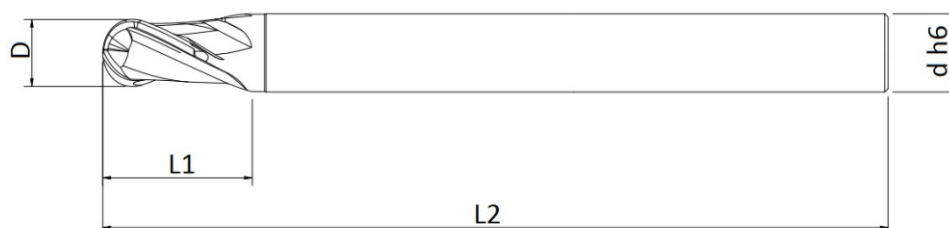
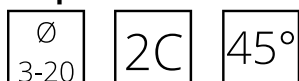
CÓDIGO DSDRILL	D	L1	L2	d	C	R
FTTMD-08-R1-20-2C-100-H8-DS_POWER	8	20	100	8	2	1
FTTMD-10-R1-25-2C-100-H10-DS_POWER	10	25	100	10	2	1
FTTMD-12-R1-30-2C-100-H12-DS_POWER	12	30	100	12	2	1
FTTMD-14-R1-45-2C-125-H14-DS_POWER	14	45	125	14	2	1
FTTMD-16-R1-45-2C-125-H16-DS_POWER	16	45	125	16	2	1
FTTMD-20-R1-45-2C-125-H20-DS_POWER	20	45	125	20	2	1
FTTMD-25-R1-45-2C-125-H25-DS_POWER	25	45	125	25	2	1

**Pensou em ferramentas,
consulte DSdrill.**



DS_ALUM

Topo Esférico

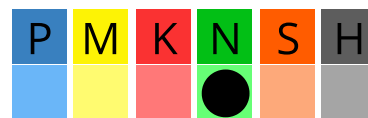


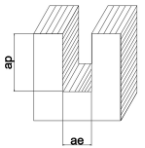
CÓDIGO DSDRILL	D	L1	L2	d	C
FTEMD-03-6-2C-50-H3-DS_ALUM	3	6	50	3	2
FTEMD-04-8-2C-50-H4-DS_ALUM	4	8	50	4	2
FTEMD-05-10-2C-50-H5-DS_ALUM	5	10	50	5	2
FTEMD-06-12-2C-50-H6-DS_ALUM	6	12	50	6	2
FTEMD-08-16-2C-60-H8-DS_ALUM	8	16	60	8	2
FTEMD-10-20-2C-75-H10-DS_ALUM	10	20	75	10	2
FTEMD-12-25-2C-75-H12-DS_ALUM	12	25	75	12	2
FTEMD-14-30-2C-75-H14-DS_ALUM	14	30	75	14	2
FTEMD-16-30-2C-75-H16-DS_ALUM	16	30	75	16	2
FTEMD-20-40-2C-100-H20-DS_ALUM	20	40	100	20	2

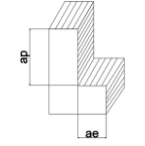
CÓDIGO DSDRILL	D	L1	L2	d	C
FTEMD-03-6-2C-75-H3-DS_ALUM	3	6	75	3	2
FTEMD-04-8-2C-75-H4-DS_ALUM	4	8	75	4	2
FTEMD-05-10-2C-75-H5-DS_ALUM	5	10	75	5	2
FTEMD-06-12-2C-100-H6-DS_ALUM	6	12	100	6	2
FTEMD-08-16-2C-100-H8-DS_ALUM	8	16	100	8	2
FTEMD-10-20-2C-100-H10-DS_ALUM	10	20	100	10	2
FTEMD-12-25-2C-100-H12-DS_ALUM	12	25	100	12	2
FTEMD-14-30-2C-110-H14-DS_ALUM	14	30	110	14	2
FTEMD-16-30-2C-110-H16-DS_ALUM	16	30	110	16	2
FTEMD-20-40-2C-125-H20-DS_ALUM	20	40	125	20	2

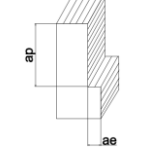


Referência de Dados de Corte - Linha DS_ALUM



	MATERIAL	DUREZA	VC (m/min)	D										
				3	4	5	6	8	10	12	14	16	20	25
				fz ² (mm/z)										
	3.3547 / EM AW-5083	270 N/mm ²	350	0.020	0.025	0.040	0.035	0.045	0.060	0.070	0.080	0.090	0.110	0.130
	3.4365 / EM AW-7075	520 N/mm ²	350	0.020	0.025	0.040	0.035	0.045	0.060	0.070	0.080	0.090	0.110	0.130
ae = 1 x D	COPPER	280 N/MM ²	250	0.010	0.015	0.020	0.025	0.035	0.045	0.050	0.055	0.065	0.080	0.105
ap = 1 x D	METAIS NÃO FERROSOS	<800 N/mm ²	250	0.010	0.015	0.020	0.025	0.035	0.045	0.050	0.055	0.065	0.080	0.105

	MATERIAL	DUREZA	VC (m/min)	D										
				3	4	5	6	8	10	12	14	16	20	25
				fz ² (mm/z)										
	3.3547 / EM AW-5083	270 N/mm ²	500	0.025	0.030	0.035	0.040	0.050	0.070	0.080	0.095	0.110	0.130	0.150
	3.4365 / EM AW-7075	520 N/mm ²	500	0.025	0.030	0.035	0.040	0.050	0.070	0.080	0.095	0.110	0.130	0.150
ae = 0.5 x D	COPPER	280 N/MM ²	300	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.100	1.120
ap = 1 x D	METAIS NÃO FERROSOS	<800 N/mm ²	300	0.015	0.020	0.025	0.030	0.040	0.050	0.060	0.070	0.080	0.100	1.120

	MATERIAL	DUREZA	VC (m/min)	D										
				3	4	5	6	8	10	12	14	16	20	25
				fz ² (mm/z)										
	3.3547 / EM AW-5083	270 N/mm ²	600	0.035	0.040	0.045	0.050	0.060	0.080	0.100	0.115	0.130	0.160	0.195
	3.4365 / EM AW-7075	520 N/mm ²	600	0.035	0.040	0.045	0.050	0.060	0.080	0.100	0.115	0.130	0.160	0.195
ae = 0.1 x D	COPPER	280 N/MM ²	400	0.025	0.030	0.035	0.040	0.050	0.060	0.070	0.80	0.090	0.110	0.135
ap = 1.5 x D	METAIS NÃO FERROSOS	<800 N/mm ²	400	0.025	0.030	0.035	0.040	0.050	0.060	0.070	0.80	0.090	0.110	0.015





***Pensou em ferramentas,
consulte DSDrill.***

MAIS INFORMAÇÕES

 **(11) 3969-5717**

 **(11) 97632-0007**

Segunda à Sexta - 7:30h às 17:15h

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