



CATÁLOGO FRESAS

METAL DURO



WWW.FERMEC.COM.BR

FRESAS TOPO RETO DE METAL DURO MICRO DIÂMETRO 2 CORTES	01
FRESAS TOPO RETO LONG NECK 2 CORTES	02
FRESAS DE TOPO RETO METAL DURO 2 CORTES	03 - 04
FRESAS DE TOPO RETO METAL DURO 2 CORTES LONGA	05
FRESAS DE TOPO RETO METAL DURO 2 CORTES XL - EXL	06
FRESAS DE TOPO RETO METAL DURO 4 CORTES	07 - 08
FRESA DE TOPO RETO DE METAL DURO 4 CORTES LONGA	09
FRESA DE TOPO RETO DE METAL DURO 4 CORTES XL - EXL	10
FRESAS DE TOPO RETO DE METAL DURO 6 CORTES	11
FRESAS DE TOPO RETO DE METAL DURO 6 CORTES LONGA - XL	12
FRESAS DE TOPO RETO METAL DURO 2 CORTES POLEGADA	13
FRESAS DE TOPO RETO METAL DURO 4 CORTES POLEGADA	14
FRESAS DE TOPO ESFÉRICA DE METAL DURO 2 CORTES MICRO DIÂMETRO	15
FRESAS DE TOPO ESFÉRICA DE METAL DURO 2 CORTES LONG NECK	16
FRESAS TOPO ESFÉRICA DE METAL DURO 2 CORTES	17 - 18
FRESAS TOPO ESFÉRICA DE METAL DURO 2 CORTES LONGA	19
FRESAS TOPO ESFÉRICA DE METAL DURO 2 CORTES XL - EXL	20
FRESAS TOPO ESFÉRICA DE METAL DURO 4 CORTES	21
FRESAS TOPO ESFÉRICA DE METAL DURO 4 CORTES LONGA	22
FRESAS TOPO ESFÉRICA DE METAL DURO 4 CORTES XL - EXL	23
FRESAS TOPO TOROIDAL DE METAL DURO 2 CORTES	24 - 25
FRESAS TOPO TOROIDAL DE METAL DURO 2 CORTES LONGA	26
FRESAS TOPO TOROIDAL DE METAL DURO 2 CORTES XL	27
FRESAS TOPO TOROIDAL DE METAL DURO 4 CORTES	28 - 29
FRESAS TOPO TOROIDAL DE METAL DURO 4 CORTES LONGA	30
FRESAS TOPO TOROIDAL DE METAL DURO 4 CORTES XL - EXL	31
FRESAS TOPO RETO DE METAL DURO 2 CORTES ALUMÍNIO	32
FRESAS TOPO RETO DE METAL DURO 2 CORTES ALUMÍNIO LONGA	33
FRESAS TOPO RETO DE METAL DURO 2 CORTES ALUMÍNIO XL - EXL	34

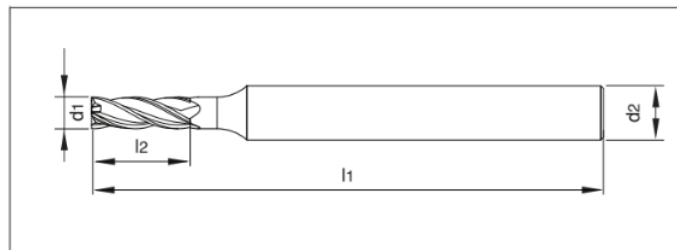
FRESAS TOPO RETO DE METAL DURO 3 CORTES ALUMÍNIO	35
FRESAS TOPO RETO DE METAL DURO 3 CORTES ALUMÍNIO LONGA	36
FRESAS TOPO RETO DE METAL DURO 3 CORTES ALUMÍNIO XL - EXL	37
FRESAS TOPO ESFÉRICA DE METAL DURO 2 CORTES ALUMÍNIO	38
FRESAS TOPO ESFÉRICA DE METAL DURO 2 CORTES ALUMÍNIO LONGA	39
FRESAS TOPO ESFÉRICA DE METAL DURO 2 CORTES ALUMÍNIO XL	40
FRESAS PARA DESBASTAR DE METAL DURO 4 CORTES CURTA E LONGA	41
FRESAS TOPO RETO DE METAL DURO 2 CORTES HRC63	42
FRESAS TOPO RETO DE METAL DURO 4 CORTES HRC63	43 - 44
FRESAS TOPO ESFÉRICA DE METAL DURO 2 CORTES HRC63	45
FRESAS TOPO ESFÉRICA DE METAL DURO 2 CORTES HRC63 LONGA	46
FRESAS DE TOPO RETO DE METAL DURO DE 6 - 8 CORTES HRC68	47
FRESAS TOPO RETO TOROIDAL DE METAL DURO 4 CORTES HRC63	48 - 49
FRESAS TOPO ESFÉRICA DE METAL DURO 3 CORTES CÔNICA	50
FRESAS TOPO RETO DE METAL DURO 3 CORTES CÔNICA	50
FRESAS DE METAL DURO PARA CHANFRAR 60° - 90°	51
FRESAS DE METAL DURO PARA CHANFRAR 4 CORTES	52
FRESAS DE METAL DURO PARA TOPO EM V 2 CORTES	53
FRESAS DE METAL DURO PARA RANHURAR WOODRUFF	54
FRESAS DE METAL DURO P. PLÁSTICO 1 CORTE CURTA - LONGA - XL	55 - 56
FRESAS DE METAL DURO PARA MDF 2 CORTES DOWN CUT	57
FRESAS DE METAL DURO PARA MDF 2 CORTES UP CUT	58

FRESAS TOPO RETO DE METAL DURO MICRO DIÂMETRO 2 CORTES

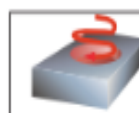
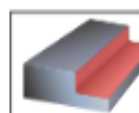
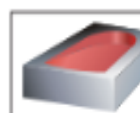
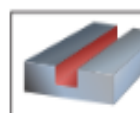
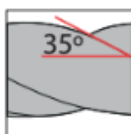
HRC
>55

35°

TiCrSiN



2 Cortes

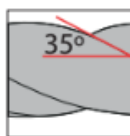
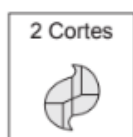
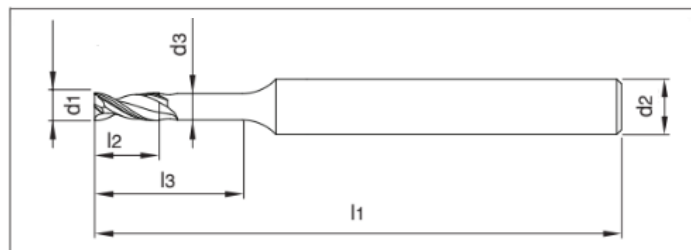
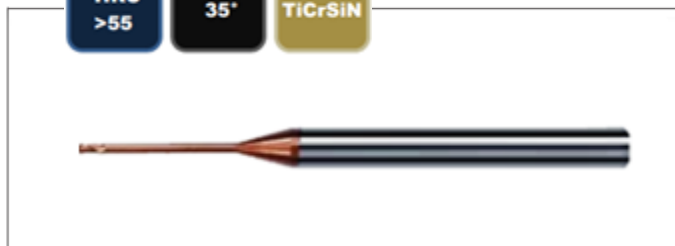


CÓDIGO	D1	L2	L1	D2
F MD D 0.2MM 2C H4	0.2	0.4	50	4
F MD D 0.3MM 2C H4	0.3	0.6	50	4
F MD D 0.4MM 2C H4	0.4	0.8	50	4
F MD D 0.5MM 2C H4	0.5	1.0	50	4
F MD D 0.6MM 2C H4	0.6	1.2	50	4
F MD D 0.7MM 2C H4	0.7	1.4	50	4
F MD D 0.8MM 2C H4	0.8	1.6	50	4
F MD D 0.9MM 2C H4	0.9	1.8	50	4

HRC
>55

35°

TiCrSiN



CÓDIGO	D1	L2	L3	L1	D2
F MD D 0.4MM 2C LN4	0.4	0.6	4	50	4
F MD D 0.5MM 2C LN4	0.5	0.8	6	50	4
F MD D 0.6MM 2C LN4	0.6	1.0	8	50	4
F MD D 0.8MM 2C LN4	0.8	1.2	10	50	4
F MD D 1MM 2C LN4	1.0	1.2	12	50	4
F MD D 1.5MM 2C LN4	1.5	1.7	12	50	4
F MD D 2MM 2C LN4	2.0	2.2	14	50	4
F MD D 3MM 2C LN4	3.0	3.2	14	50	4
F MD D 4MM 2C LN6	4.0	4.2	14	50	6
F MD D 2MM 2C LN4	2.0	2.2	16	75	4
F MD D 3MM 2C LN4	3.0	3.2	20	75	4
F MD D 4MM 2C LN6	4.0	4.2	25	75	6

HRC
>55

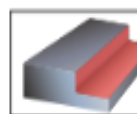
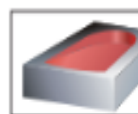
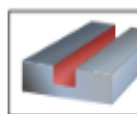
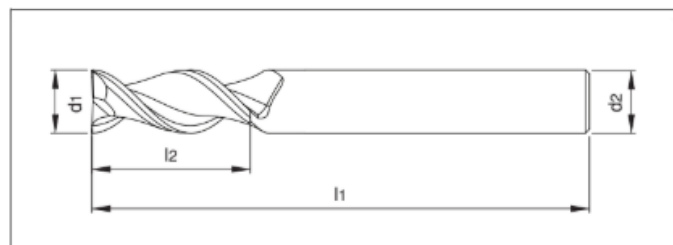
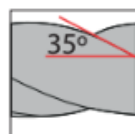
35°

TiCrSiN

TiAlN



2 Cortes



CÓDIGO	D1	L2	L1	D2
F MD D 1MM 2C H3	1.0	3	50	3
F MD D 1MM 2C H4	1.0	3	50	4
F MD D 1MM 2C H6	1.0	3	50	6
F MD D 1.5MM 2C H3	1.5	4.5	50	3
F MD D 1.5MM 2C H4	1.5	4.5	50	4
F MD D 2MM 2C H3	2.0	6	50	3
F MD D 2MM 2C H4	2.0	6	50	4
F MD D 2MM 2C H6	2.0	6	50	6
F MD D 2.5MM 2C H3	2.5	7	50	3
F MD D 2.5MM 2C H4	2.5	7	50	4
F MD D 3MM 2C	3.0	8	50	3
F MD D 3MM 2C H4	3.0	8	50	4
F MD D 3MM 2C H6	3.0	8	50	6
F MD D 3.5MM 2C H4	3.5	10	50	4
F MD D 4MM 2C H4	4.0	11	50	4
F MD D 4MM 2C H6	4.0	11	50	6
F MD D 4.5MM 2C H6	4.5	13	50	6
F MD D 5MM 2C	5.0	13	50	5

HRC
>55

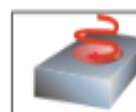
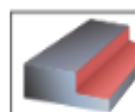
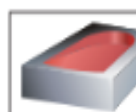
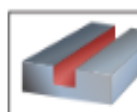
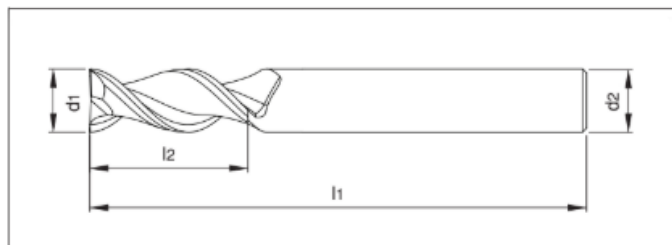
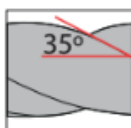
35°

TiCrSiN

TiAlN



2 Cortes



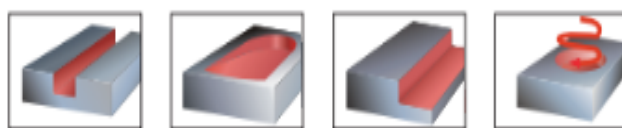
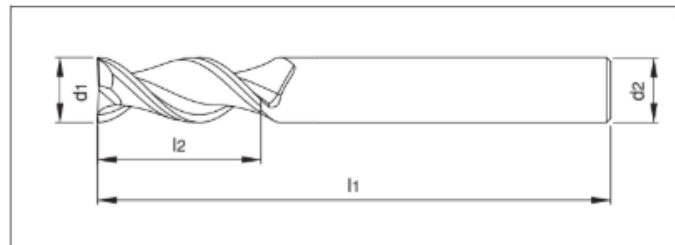
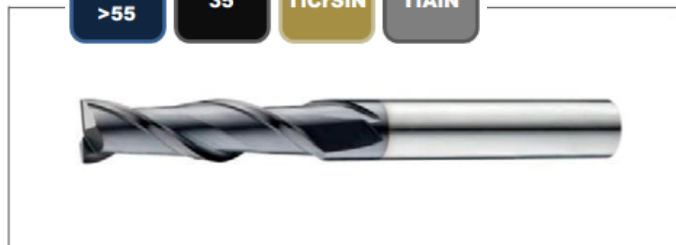
CÓDIGO	D1	L2	L1	D2
F MD D 6MM 2C	6.0	15	50	6
F MD D 7MM 2C	7.0	17	60	7
F MD D 8MM 2C	8.0	20	60	8
F MD D 9MM 2C	9.0	23	75	9
F MD D 10MM 2C	10.0	30	75	10
F MD D 11MM 2C	11.0	28	75	11
F MD D 12MM 2C	12.0	30	75	12
F MD D 13MM 2C	13.0	33	100	13
F MD D 14MM 2C	14.0	35	100	14
F MD D 15MM 2C	15.0	38	100	15
F MD D 16MM 2C	16.0	40	100	16
F MD D 17MM 2C	17.0	40	100	17
F MD D 18MM 2C	18.0	40	100	18
F MD D 19MM 2C	19.0	40	100	19
F MD D 20MM 2C	20.0	40	100	20
F MD D 22MM 2C	22.0	40	100	22
F MD D 25MM 2C	25.0	40	100	25

HRC
>55

35°

TiCrSiN

TiAlN



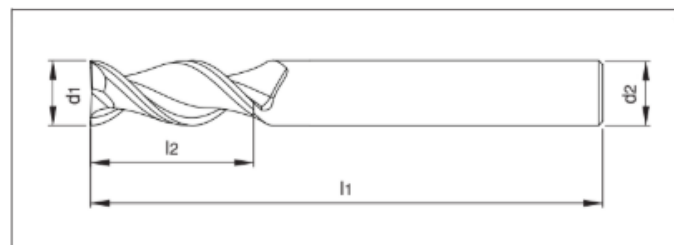
CÓDIGO	D1	L2	L1	D2
F MD D 1MM 2C L	1.0	5	75	3
F MD D 1MM 2C L H4	1.0	5	75	4
F MD D 1MM 2C L H6	1.0	5	75	6
F MD D 2MM 2C L H3	2.0	9	75	3
F MD D 2MM 2C L H4	2.0	9	75	4
F MD D 2MM 2C L H6	2.0	9	75	6
F MD D 3MM 2C L	3.0	15	75	3
F MD D 3MM 2C L H4	3.0	15	75	4
F MD D 3MM 2C L H6	3.0	15	75	6
F MD D 4MM 2C L	4.0	20	75	4
F MD D 4MM 2C L H6	4.0	20	75	6
F MD D 5MM 2C L	5.0	25	75	5
F MD D 6MM 2C L	6.0	25	75	6
F MD D 7MM 2C L	7.0	25	75	7
F MD D 8MM 2C L	8.0	30	75	8
F MD D 9MM 2C L	9.0	40	100	9
F MD D 10MM 2C L	10.0	40	100	10
F MD D 11MM 2C L	11.0	45	100	12
F MD D 12MM 2C L	12.0	45	100	12

HRC
>55

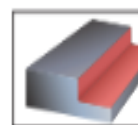
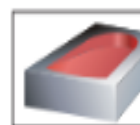
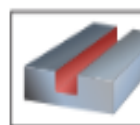
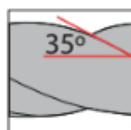
35°

TiCrSiN

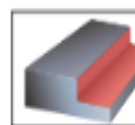
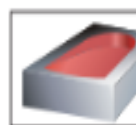
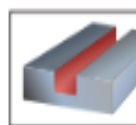
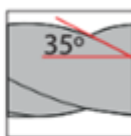
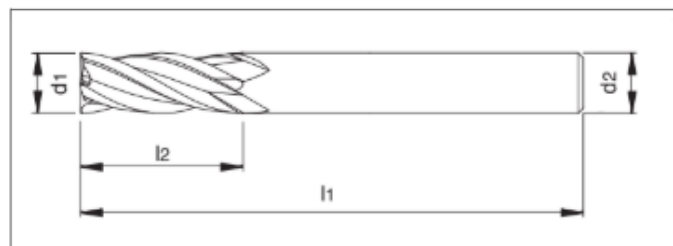
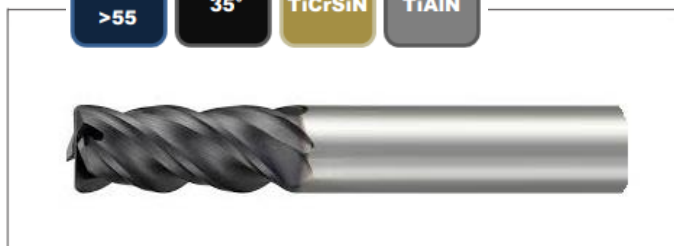
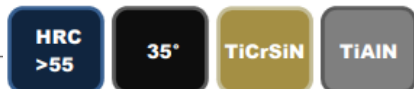
TiAlN



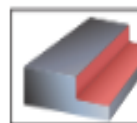
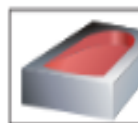
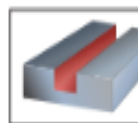
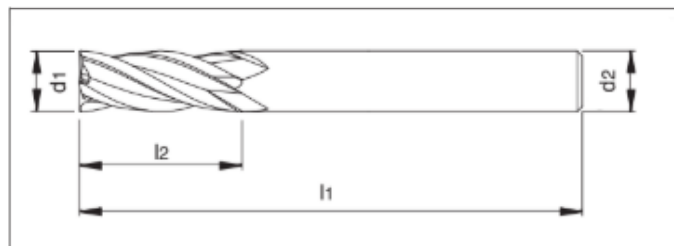
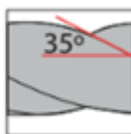
2 Cortes



CÓDIGO	D1	L2	L1	D2
F MD D 3MM 2C XL	3.0	15	100	3
F MD D 3MM 2C XL H6	3.0	15	100	6
F MD D 4MM 2C XL	4.0	25	100	4
F MD D 4MM 2C XL H6	4.0	25	100	6
F MD D 5MM 2C XL	5.0	30	100	5
F MD D 6MM 2C XL	6.0	30	100	6
F MD D 7MM 2C XL	7.0	35	100	7
F MD D 8MM 2C XL	8.0	35	100	8
F MD D 8MM 2C EXL	8.0	40	150	8
F MD D 10MM 2C EXL	10.0	50	150	10
F MD D 12MM 2C EXL	12.0	50	150	12
F MD D 16MM 2C EXL	16.0	70	150	16
F MD D 18MM 2C EXL	18.0	80	150	18
F MD D 20MM 2C EXL	20.0	80	150	20



CÓDIGO	D1	L2	L1	D2
F MD D 1MM 4C	1.0	3	50	3
F MD D 1MM 4C H4	1.0	3	50	4
F MD D 1MM 4C H6	1.0	3	50	6
F MD D 1.5MM 4C	1.5	4.5	50	3
F MD D 1.5MM 4C H4	1.5	4.5	50	4
F MD D 2MM 4C	2.0	6	50	3
F MD D 2MM 4C H4	2.0	6	50	4
F MD D 2MM 4C H6	2.0	6	50	6
F MD D 2.5MM 4C	2.5	7	50	3
F MD D 2.5MM 4C H4	2.5	7	50	4
F MD D 3MM 4C	3.0	8	50	3
F MD D 3MM 4C H4	3.0	8	50	4
F MD D 3MM 4C H6	3.0	8	50	6
F MD D 3.5MM 4C H4	3.5	10	50	4
F MD D 4MM 4C	4.0	11	50	4
F MD D 4MM 4C H6	4.0	11	50	6
F MD D 4.5MM 4C H6	4.5	13	50	6
F MD D 5MM 4C	5.0	13	50	5
F MD D 6MM 4C	6.0	15	50	6
F MD D 6.5MM 4C H8	6.5	15	50	8
F MD D 7MM 4C	7.0	17	60	7
F MD D 8MM 4C	8.0	20	60	8



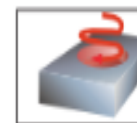
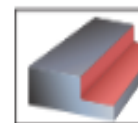
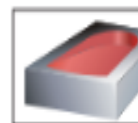
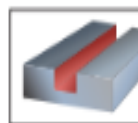
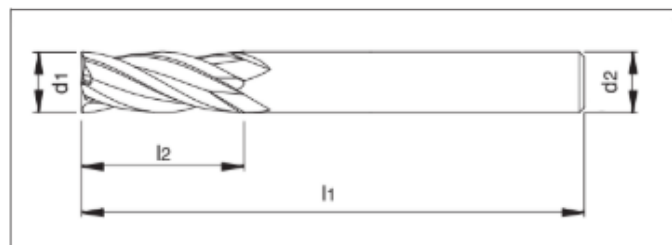
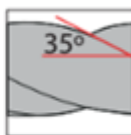
CÓDIGO	D1	L2	L1	D2
F MD D 9MM 4C	9.0	23	75	9
F MD D 10MM 4C	10.0	30	75	10
F MD D 11MM 4C	11.0	28	75	11
F MD D 12MM 4C	12.0	30	75	12
F MD D 13MM 4C	13.0	33	100	13
F MD D 14MM 4C	14.0	35	100	14
F MD D 15MM 4C	15.0	38	100	15
F MD D 16MM 4C	16.0	40	100	16
F MD D 17MM 4C	17.0	40	100	17
F MD D 18MM 4C	18.0	40	100	18
F MD D 19MM 4C	19.0	40	100	19
F MD D 20MM 4C	20.0	40	100	20
F MD D 22MM 4C	22.0	40	100	22
F MD D 25MM 4C	25.0	40	100	25

HRC
>55

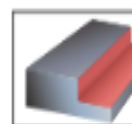
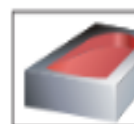
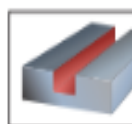
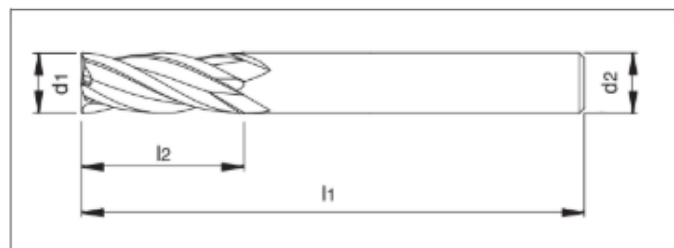
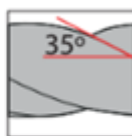
35°

TiCrSiN

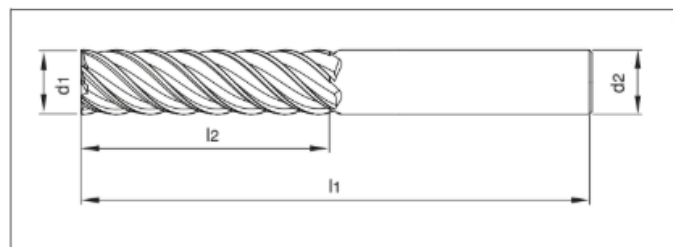
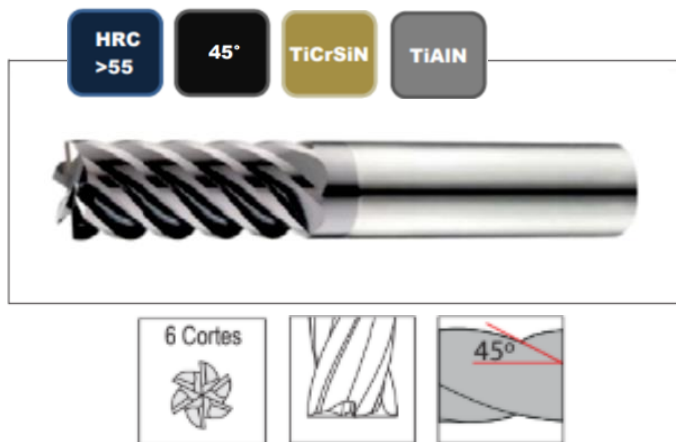
TiAlN



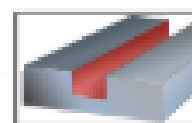
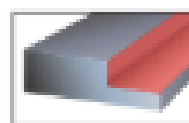
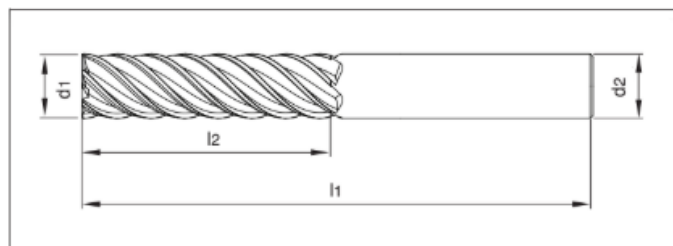
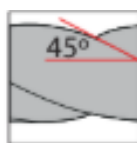
CÓDIGO	D1	L2	L1	D2
F MD D 1MM 4C L	1.0	5	75	3
F MD D 1MM 4C L H4	1.0	5	75	4
F MD D 1MM 4C L H6	1.0	5	75	6
F MD D 2MM 4C L	2.0	9	75	3
F MD D 2MM 4C L H4	2.0	9	75	4
F MD D 2MM 4C L H6	2.0	9	75	6
F MD D 3MM 4C L	3.0	15	75	3
F MD D 3MM 4C L H4	3.0	15	75	4
F MD D 3MM 4C L H6	3.0	15	75	6
F MD D 4MM 4C L	4.0	20	75	4
F MD D 4MM 4C L H6	4.0	20	75	6
F MD D 5MM 4C L	5.0	25	75	5
F MD D 6MM 4C L	6.0	25	75	6
F MD D 7MM 4C L	7.0	25	75	7
F MD D 8MM 4C L	8.0	25	75	8



CÓDIGO	D1	L2	L1	D2
F MD D 3MM 4C XL	3.0	15	100	3
F MD D 3MM 4C XL H6	3.0	15	100	6
F MD D 4MM 4C XL	4.0	25	100	4
F MD D 4MM 4C XL H6	4.0	25	100	6
F MD D 5MM 4C XL	5.0	30	100	5
F MD D 6MM 4C XL	6.0	30	100	6
F MD D 7MM 4C XL	7.0	35	100	7
F MD D 8MM 4C XL	8.0	35	100	8
F MD D 9MM 4C XL	9.0	40	100	9
F MD D 10MM 4C XL	10.0	40	100	10
F MD D 11MM 4C XL	11.0	45	100	11
F MD D 12MM 4C XL	12.0	45	100	12
F MD D 8MM 4C EXL	8.0	40	150	8
F MD D 10MM 4C EXL	10.0	50	150	10
F MD D 12MM 4C EXL	12.0	50	150	12
F MD D 16MM 4C EXL	16.0	70	150	16
F MD D 18MM 4C EXL	18.0	80	150	18
F MD D 20MM 4C EXL	20.0	80	150	20



CÓDIGO	D1	L2	L1	D2
F MD D 4MM 6C	4.0	11	50	4
F MD D 5MM 6C	5.0	13	50	6
F MD D 6MM 6C	6.0	15	50	6
F MD D 8MM 6C	8.0	20	60	8
F MD D 10MM 6C	10.0	30	75	10
F MD D 12MM 6C	12.0	30	75	12
F MD D 16MM 6C	16.0	40	100	16
F MD D 20MM 6C	20.0	40	100	20
F MD D 25MM 6C	25.0	45	100	25



CÓDIGO	D1	L2	L1	D2
F MD 4MM 6C L	4.0	16	75	4
F MD 5MM 6C L H6	5.0	20	75	6
F MD 6MM 6C L	6.0	25	75	6
F MD 8MM 6C L	8.0	30	75	8
F MD 4MM 6C XL H6	4.0	20	100	6
F MD 5MM 6C XL H6	5.0	25	100	6
F MD 6MM 6C XL	6.0	30	100	6
F MD 8MM 6C XL	8.0	35	100	8
F MD 10MM 6C XL	10.0	40	100	10
F MD 12MM 6C XL	12.0	45	100	12

HRC
>55

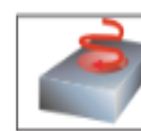
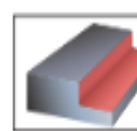
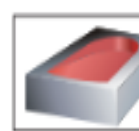
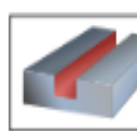
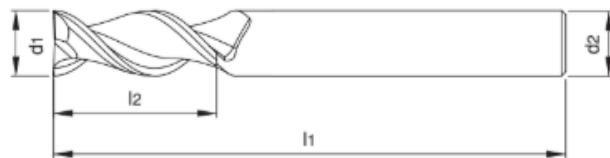
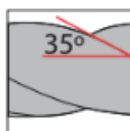
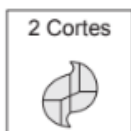
35°

TiCrSiN

TiAlN



2 Cortes



CÓDIGO	D1	L2	L1	D2
F MD D 3/32 2C H1/8	3/32"	3/8"	1.1/2"	1/8"
F MD D 2C 1/8	1/8"	1/2"	1.1/2"	1/8"
F MD D 3/16 2C H3.16	3/16"	5/8"	2"	3.16"
F MD D 1/4 2C H1/4	1/4"	3/4"	2.1/2"	1/4"
F MD D 5/16 2C H5/16	5/16"	13/16"	2.1/2"	5/16"
F MD D 1/8 2C L	1/8"	3/4"	2.1/4"	1/8"
F MD D 3/16 2C H3.16 L	3/16"	3/4"	2.1/2"	3.16"
F MD D 1/4 2C L	1/4"	1.1/8"	3"	1/4"
F MD D 5/16 2C L	5/16"	1/8"	3"	5/16"
F MD D 1/8 2C XL	1/8"	1"	3"	1/8"
F MD D 3/16 2C H3.16 XL	3/16"	1/8"	3"	3.16"
F MD D 1/4 2C XL	1/4"	1.1/2"	4"	1/4"
F MD D 5/16 2C XL	5/16"	1.5/8"	4"	5/16"

HRC

>55

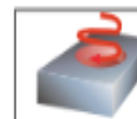
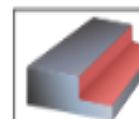
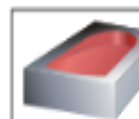
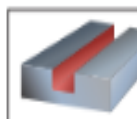
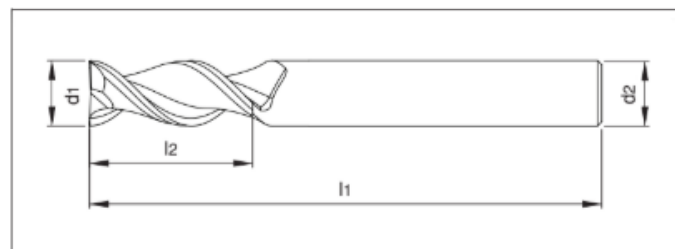
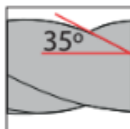
35°

TiCrSiN

TiAlN



2 Cortes



CÓDIGO	D1	L2	L1	D2
F MD D 3/32 4C H1/8	3/32"	3/8"	1.1/2"	1/8"
F MD D 4C 1/8	1/8"	1/2"	1.1/2"	1/8"
F MD D 3/16 4C H3.16	3/16"	5/8"	2"	3.16"
F MD D 1/4 4C H1/4	1/4"	3/4"	2.1/2"	1/4"
F MD D 5/16 4C H5/16	5/16"	13/16"	2.1/2"	5/16"
F MD D 1/8 4C L	1/8"	3/4"	2.1/4"	1/8"
F MD D 3/16 4C H3.16 L	3/16"	3/4"	2.1/2"	3.16"
F MD D 1/4 4C L	1/4"	1.1/8"	3"	1/4"
F MD D 5/16 4C L	5/16"	1/8"	3"	5/16"
F MD D 1/8 4C XL	1/8"	1"	3	1/8"
F MD D 3/16 4C H3.16 XL	3/16"	1/8"	3"	3.16"
F MD D 1/4 4C XL	1/4"	1.1/2"	4"	1/4"

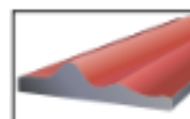
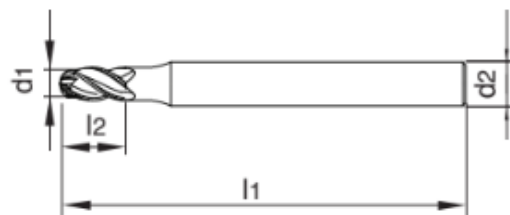
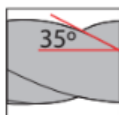
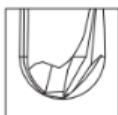
HRC
>55

35°

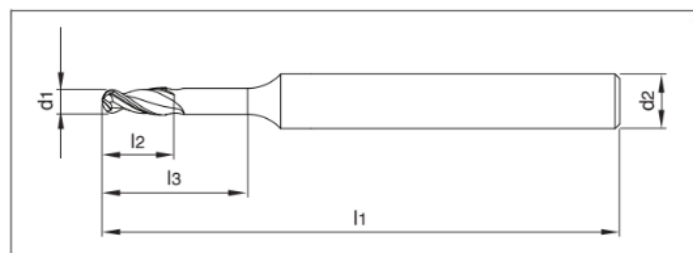
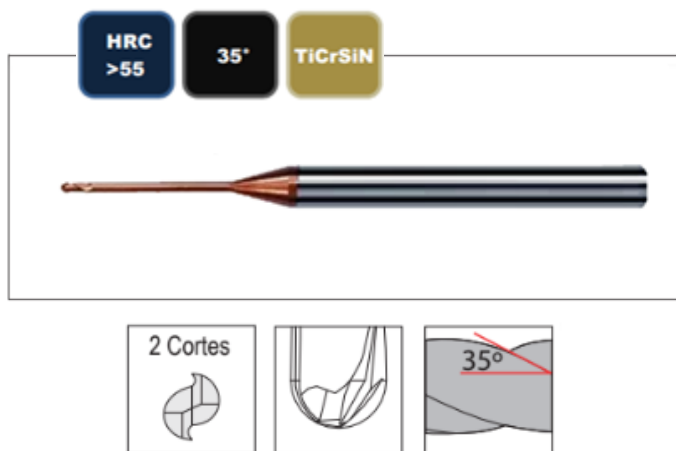
TiCrSiN



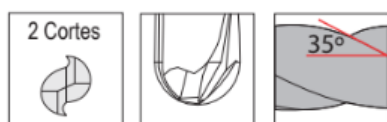
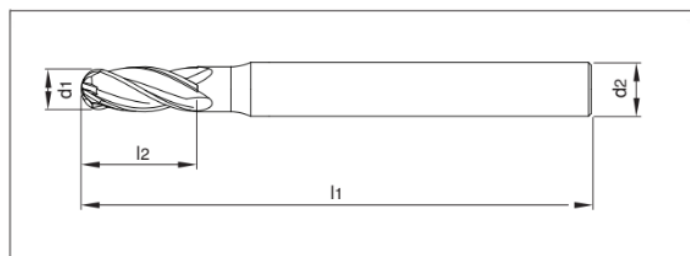
2 Cortes



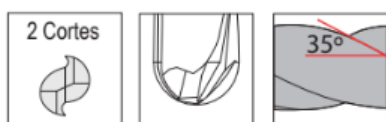
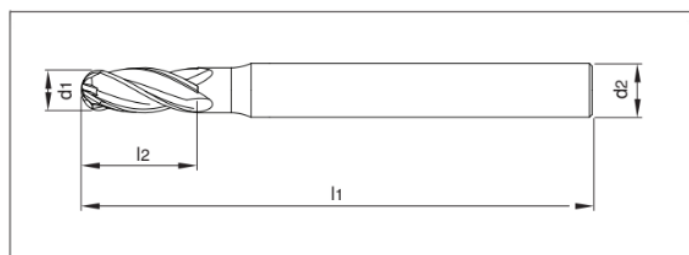
CÓDIGO	D1	L2	L1	D2
F MD ESF. D 0.2MM 2C H4	0.2	0.4	50	4
F MD ESF. D 0.3MM 2C H4	0.3	0.6	50	4
F MD ESF. D 0.4MM 2C H4	0.4	0.8	50	4
F MD ESF. D 0.5MM 2C H4	0.5	1.0	50	4
F MD ESF. D 0.6MM 2C H4	0.6	1.2	50	4
F MD ESF. D 0.7MM 2C H4	0.7	1.4	50	4
F MD ESF. D 0.8MM 2C H4	0.8	1.6	50	4
F MD ESF. D 0.9MM 2C H4	0.9	1.8	50	4



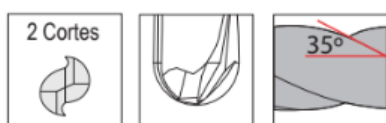
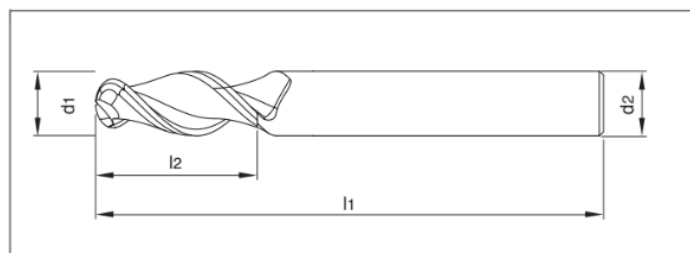
CÓDIGO	D1	L2	L3	L1	D2
F MD ESF. D 0.4MM 2C LN4	0.4	0.6	4	50	4
F MD ESF. D 0.5MM 2C LN6	0.5	0.8	6	50	4
F MD ESF. D 0.6MM 2C LN8	0.6	1.0	8	50	4
F MD ESF. D 0.8MM 2C LN10	0.8	1.2	10	50	4
F MD ESF. D 1.0MM 2C LN12	1.0	1.2	12	50	4
F MD ESF. D 1.5MM 2C LN12	1.5	1.7	12	50	4
F MD ESF. D 2.0MM 2C LN14	2.0	2.2	14	50	4
F MD ESF. D 3.0MM 2C LN14	3.0	3.2	14	50	4
F MD ESF. D 4.0MM 2C LN14	4.0	4.2	14	50	6



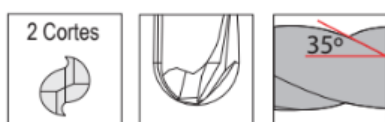
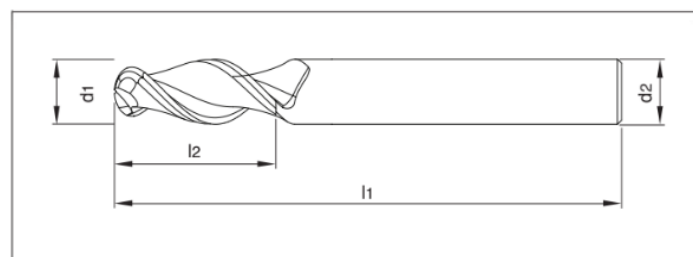
CÓDIGO	D1	L2	L1	D2
F MD ESF. D 1MM 2C	1.0	2	50	3
F MD ESF. D 1MM 2C H4	1.0	2	50	4
F MD ESF. D 1MM 2C H6	1.0	2	50	6
F MD ESF. D 1MM 2C H4	1.5	3	50	4
F MD ESF. D 2MM 2C H4	2.0	4	50	4
F MD ESF. D 2MM 2C H6	2.0	4	50	6
F MD ESF. D 2.5MM 2C H4	2.5	5	50	4
F MD ESF. D 3MM 2C	3.0	6	50	3
F MD ESF. D 3MM 2C H4	3.0	6	50	4
F MD ESF. D 3MM 2C H6	3.0	6	50	6
F MD ESF. D 3.5MM 2C H4	3.5	7	50	4
F MD ESF. D 4MM 2C H4	4.0	8	50	4
F MD ESF. D 4MM 2C H6	4.0	8	50	6
F MD ESF. D 4.5MM 2C H6	4.5	9	50	6



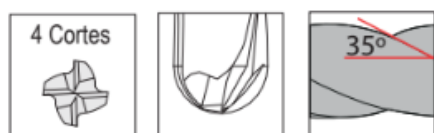
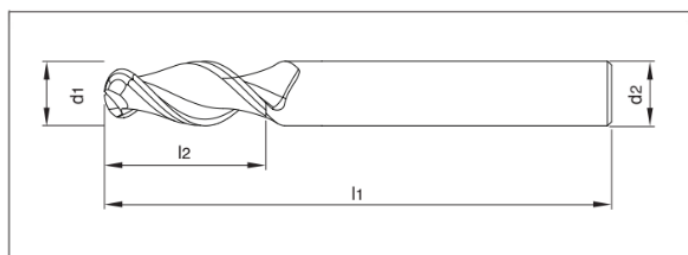
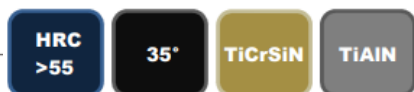
CÓDIGO	D1	L2	L1	D2
F MD ESF. D 5MM 2C	5.0	10	50	5
F MD ESF. D 6MM 2C	6.0	12	50	6
F MD ESF. D 7MM 2C	7.0	14	60	7
F MD ESF. D 8MM 2C	8.0	16	60	8
F MD ESF. D 9MM 2C	9.0	18	75	9
F MD ESF. D 10MM 2C	10.0	20	75	10
F MD ESF. D 12MM 2C	12.0	24	75	12
F MD ESF. D 14MM 2C	14.0	28	100	14
F MD ESF. D 16MM 2C	16.0	30	100	16
F MD ESF. D 20MM 2C	20.0	30	100	20
F MD ESF. D 25MM 2C	25.0	30	100	25



CÓDIGO	D1	L2	L1	D2
F MD ESF. D 1MM 2C L H4	1.0	2	75	4
F MD ESF. D 1MM 2C L H6	1.0	2	75	6
F MD ESF. D 2MM 2C L H4	2.0	4	75	4
F MD ESF. D 2MM 2C L H6	2.0	4	75	6
F MD ESF. D 3MM 2C L	3.0	6	75	3
F MD ESF. D 3MM 2C L H4	3.0	6	75	4
F MD ESF. D 3MM 2C L H6	3.0	6	75	6
F MD ESF. D 4MM 2C L	4.0	8	75	4
F MD ESF. D 4MM 2C L H6	4.0	8	75	6
F MD ESF. D 5MM 2C L H5	5.0	10	75	5
F MD ESF. D 6MM 2C L H6	6.0	12	75	6
F MD ESF. D 8MM 2C L H8	8.0	16	75	8



CÓDIGO	D1	L2	L1	D2
F MD ESF. D 1MM 2C XL	1.0	2	100	3
F MD ESF. D 1MM 2C XL H4	1.0	2	100	4
F MD ESF. D 1MM 2C XL H6	1.0	2	100	6
F MD ESF. D 2MM 2C XL	2.0	4	100	3
F MD ESF. D 2MM 2C XL H4	2.0	4	100	4
F MD ESF. D 2MM 2C XL H6	2.0	4	100	6
F MD ESF. D 3MM 2C XL	3.0	6	100	3
F MD ESF. D 3MM 2C XL H6	3.0	6	100	6
F MD ESF. D 4MM 2C XL	4.0	8	100	4
F MD ESF. D 4MM 2C XL H6	4.0	8	100	6
F MD ESF. D 5MM 2C XL	5.0	10	100	5
F MD ESF. D 6MM 2C XL	6.0	12	100	6
F MD ESF. D 8MM 2C XL	8.0	16	100	8
F MD ESF. D 10MM 2C XL	10.0	20	100	10
F MD ESF. D 12MM 2C XL	12.0	24	100	12
F MD ESF. D 6MM 2C EXL	6.0	12	150	6
F MD ESF. D 8MM 2C EXL	8.0	16	150	8
F MD ESF. D 10MM 2C EXL	10.0	20	150	10
F MD ESF. D 12MM 2C EXL	12.0	24	150	12
F MD ESF. D 16MM 2C EXL	16.0	30	150	16
F MD ESF. D 20MM 2C EXL	20.0	30	150	20



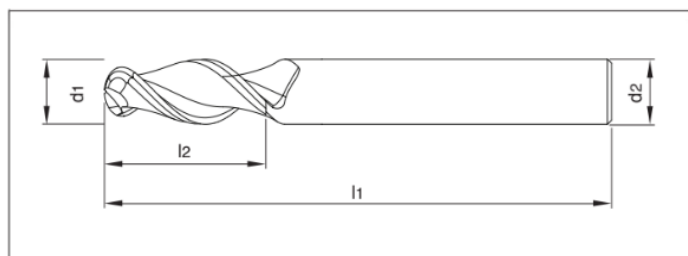
CÓDIGO	D1	L2	L1	D2
F MD ESF. D 1MM 4C H4	1.0	2	50	4
F MD ESF. D 1MM 4C H6	1.0	2	50	6
F MD ESF. D 1.5MM 4C H4	1.5	3	50	4
F MD ESF. D 2MM 4C H4	2.0	4	50	4
F MD ESF. D 2MM 4C H6	2.0	4	50	6
F MD ESF. D 2.5MM 4C H4	2.5	5	50	4
F MD ESF. D 3MM 4C	3.0	6	50	3
F MD ESF. D 3MM 4C H4	3.0	6	50	4
F MD ESF. D 3MM 4C H6	3.0	6	50	6
F MD ESF. D 3.5MM 4C H4	3.5	7	50	4
F MD ESF. D 4MM 4C H4	4.0	8	50	4
F MD ESF. D 4MM 4C H6	4.0	8	50	6
F MD ESF. D 4.5MM 4C H6	4.5	9	50	6
F MD ESF. D 5MM 4C H5	5.0	10	50	5
F MD ESF. D 6MM 4C H6	6.0	12	50	6
F MD ESF. D 7MM 4C	7.0	14	60	7
F MD ESF. D 8MM 4C	8.0	16	60	8
F MD ESF. D 9MM 4C	9.0	18	75	9
F MD ESF. D 10MM 4C	10.0	20	75	10
F MD ESF. D 12MM 4C	12.0	24	75	12
F MD ESF. D 14MM 4C	14.0	28	100	14
F MD ESF. D 16MM 4C	16.0	30	100	16
F MD ESF. D 20MM 4C	20.0	30	100	20
F MD ESF. D 25MM 4C	25.0	30	100	25

HRC
>55

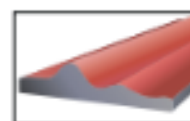
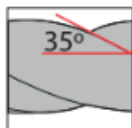
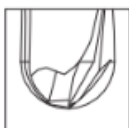
35°

TiCrSiN

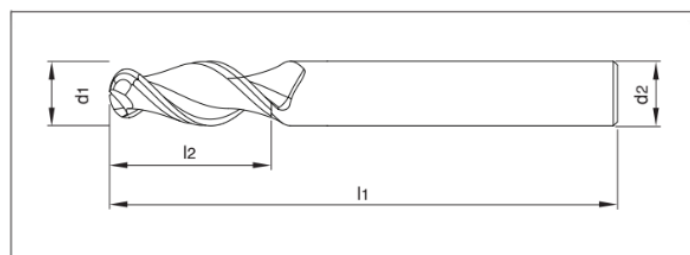
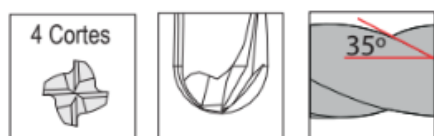
TiAlN



4 Cortes



CÓDIGO	D1	L2	L1	D2
F MD ESF. D 1MM 4C L	1.0	2	75	3
F MD ESF. D 1MM 4C L H4	1.0	2	75	4
F MD ESF. D 1MM 4C L H6	1.0	2	75	6
F MD ESF. D 2MM 4C L	2.0	4	75	3
F MD ESF. D 2MM 4C L H4	2.0	4	75	4
F MD ESF. D 2MM 4C L H6	2.0	4	75	6
F MD ESF. D 3MM 4C L	3.0	6	75	3
F MD ESF. D 3MM 4C L H4	3.0	6	75	4
F MD ESF. D 3MM 4C L H6	3.0	6	75	6
F MD ESF. D 4MM 4C L	4.0	8	75	4
F MD ESF. D 4MM 4C L H6	4.0	8	75	6
F MD ESF. D 5MM 4C L	5.0	10	75	5
F MD ESF. D 6MM 4C L	6.0	12	75	6
F MD ESF. D 8MM 4C L	8.0	16	75	8



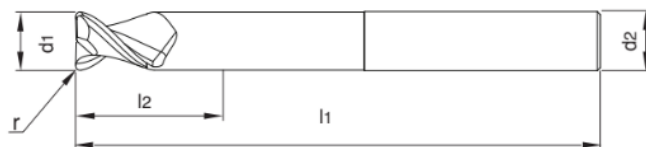
CÓDIGO	D1	L2	L1	D2
F MD ESF. D 3MM 4C XL	3.0	6	100	3
F MD ESF. D 3MM 4C XL H6	3.0	6	100	6
F MD ESF. D 4MM 4C XL	4.0	8	100	4
F MD ESF. D 4MM 4C XL H6	4.0	8	100	6
F MD ESF. D 5MM 4C XL	5.0	10	100	5
F MD ESF. D 6MM 4C XL	6.0	12	100	6
F MD ESF. D 8MM 4C XL	8.0	16	100	8
F MD ESF. D 10MM 4C XL	10.0	20	100	10
F MD ESF. D 12MM 4C XL	12.0	24	100	12
F MD ESF. D 8MM 4C EXL	8.0	16	150	8
F MD ESF. D 10MM 4C EXL	10.0	20	150	10
F MD ESF. D 12MM 4C EXL	12.0	24	150	12
F MD ESF. D 16MM 4C EXL	16.0	30	150	16
F MD ESF. D 20MM 4C EXL	20.0	30	150	20

HRC
>55

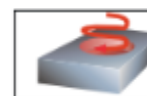
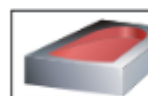
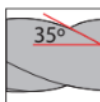
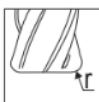
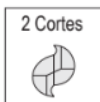
35°

TiCrSiN

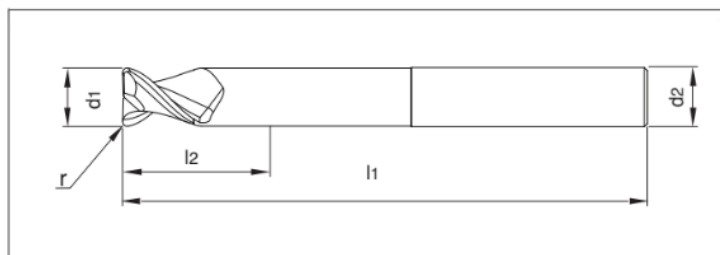
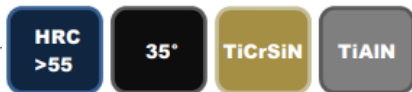
TiAlN



2 Cortes



CÓDIGO	D1	R	L2	L1	D2
F MD D 1MM 2C R0.2 H4	1.0	0.2	2	50	4
F MD D 2MM 2C R0.5 H4	2.0	0.5	4	50	4
F MD D 3MM 2C R0.5	3.0	0.5	6	50	3
F MD D 3MM 2C R0.5	3.0	0.5	6	50	3
F MD D 3MM 2C R1.0 H4	3.0	0.1	6	50	4
F MD D 4MM 2C R0.5	4.0	0.5	8	50	4
F MD D 4MM 2C R1.0	4.0	1.0	8	50	4
F MD D 5MM 2C R0.5	5.0	0.5	10	50	5
F MD D 5MM 2C R1.0 H6	5.0	0.5	10	50	6
F MD D 5MM 2C R0.2 H6	5.0	1.0	10	50	6
F MD D 6MM 2C R0.5	6.0	0.5	12	50	6
F MD D 6MM 2C R1.0	6.0	1.0	12	50	6



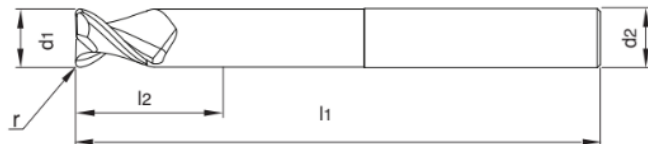
CÓDIGO	D1	R	L2	L1	D2
F MD D 8MM 2C R0.5	8.0	0.5	16	60	8
F MD D 8MM 2C R0.5	8.0	1.0	16	60	8
F MD D 8MM 2C R1.0	8.0	1.5	16	60	8
F MD D 8MM 2C R0.5	8.0	2.0	16	60	8
F MD D 10MM 2C R1.0	10.0	0.5	20	75	10
F MD D 10MM 2C R1.5	10.0	1.0	20	75	10
F MD D 10MM 2C R2.0	10.0	1.5	20	75	10
F MD D 10MM 2C R0.5	10.0	2.0	20	75	10
F MD D 12MM 2C R0.5	12.0	0.5	24	75	12
F MD D 12MM 2C R1.0	12.0	1.0	24	75	12
F MD D 12MM 2C R1.5	12.0	1.5	24	75	12
F MD D 12MM 2C R2.0	12.0	2.0	24	75	12

HRC
>55

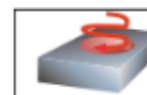
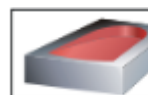
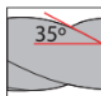
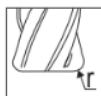
35°

TiCrSiN

TiAlN



2 Cortes



CÓDIGO

D1

R

L2

L1

D2

F MD D 2MM 2C R0.5 L H4

2.0

0.5

4

75

4

F MD D 3MM 2C R0.5 L H4

3.0

0.5

6

75

4

F MD D 3MM 2C R1.0 L H4

3.0

1.0

6

75

4

F MD D 4MM 2C R0.5 L

4.0

0.5

8

75

4

F MD D 4MM 2C R1.0 L

4.0

1.0

8

75

4

F MD D 5MM 2C R0.5 L H6

5.0

0.5

10

75

6

F MD D 6MM 2C R0.5 L H6

6.0

0.5

12

75

6

F MD D 6MM 2C R1.0 L H6

6.0

1.0

12

75

6

F MD D 8MM 2C R0.5 L

8.0

0.5

16

75

8

F MD D 8MM 2C R1.0 L

8.0

1.0

16

75

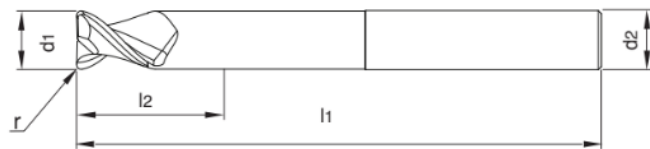
8

HRC
>55

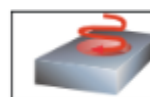
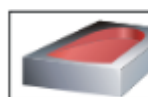
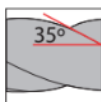
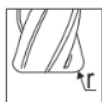
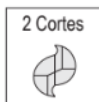
35°

TiCrSiN

TiAlN



2 Cortes



CÓDIGO

D1

R

L2

L1

D2

F MD D 4MM 2C R0.5 XL

4.0

0.5

8

100

4

F MD D 4MM 2C R0.5 XL H6

4.0

0.5

8

100

6

F MD D 4MM 2C R1.0 XL

4.0

1.0

8

100

4

F MD D 4MM 2C R1.0 XL H6

4.0

1.0

8

100

6

F MD D 5MM 2C R0.5 XL

5.0

0.5

10

100

5

F MD D 5MM 2C R1.0 XL

5.0

1.0

10

100

5

F MD D 6MM 2C R0.5 XL

6.0

0.5

12

100

6

F MD D 6MM 2C R1.0 XL

6.0

1.0

12

100

6

F MD D 8MM 2C R0.5 XL

8.0

0.5

16

100

8

F MD D 8MM 2C R1.0 XL

8.0

1.0

16

100

8

F MD D 10MM 2C R0.5 XL

10.0

0.5

20

100

10

F MD D 10MM 2C R1.0 XL

10.0

1.0

20

100

10

F MD D 12MM 2C R0.5 XL

12.0

0.5

24

100

12

F MD D 12MM 2C R1.0 XL

12.0

1.0

24

100

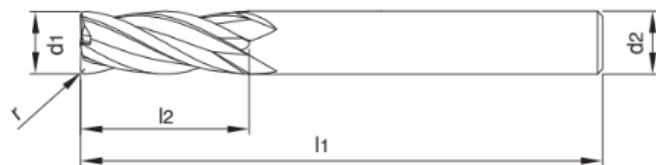
12

HRC
>55

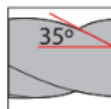
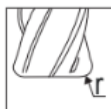
35°

TiCrSiN

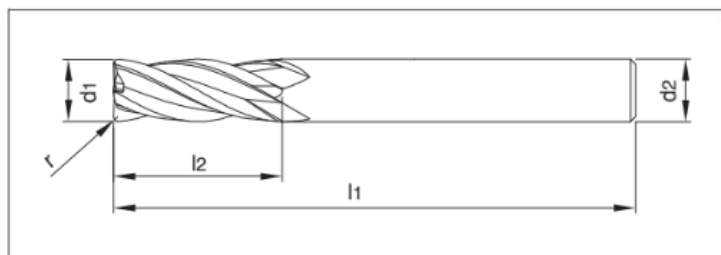
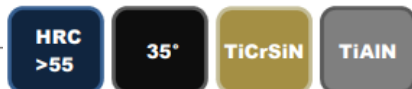
TiAlN



4 Cortes



CÓDIGO	D1	R	L2	L1	D2
F MD D 1MM 4C R0.5 H4	1.0	0.5	2	50	4
F MD D 1MM 4C R1.0 H4	1.5	1.0	3	50	4
F MD D 2MM 4C R1.5 H4	2.0	1.5	4	50	4
F MD D 2MM 4C R2.0 H4	2.0	2.0	4	50	4
F MD D 3MM 4C R0.5	3.0	0.5	6	50	3
F MD D 3MM 4C R1.0 H4	3.0	1.0	6	50	4
F MD D 3MM 4C R0.5	3.0	0.5	6	50	3
F MD D 3MM 4C R0.5 H4	3.0	0.5	6	50	4
F MD D 3MM 4C R1.0	3.0	1.0	6	50	3
F MD D 3MM 4C R1.0 H4	3.0	1.0	6	50	4
F MD D 4MM 4C R2.0	4.0	2.0	8	50	4
F MD D 4MM 4C R0.5	4.0	0.5	8	50	4
F MD D 4MM 4C R1.0	4.0	1.0	8	50	4
F MD D 5MM 4C R0.5	5.0	0.5	10	50	5
F MD D 5MM 4C R0.5	5.0	0.5	10	50	6
F MD D 5MM 4C R1.0	5.0	1.0	10	50	6
F MD D 6MM 4C R0.5	6.0	0.5	12	50	6
F MD D 6MM 4C R1.0	6.0	1.0	12	50	6
F MD D 6MM 4C R1.5	6.0	1.5	12	50	6
F MD D 6MM 4C R2.0	6.0	2.0	12	50	6
F MD D 8MM 4C R0.5	8.0	0.5	16	60	8
F MD D 8MM 4C R1.0	8.0	1.0	16	60	8
F MD D 8MM 4C R1.5	8.0	1.5	16	60	8
F MD D 8MM 4C R2.0	8.0	2.0	16	60	8
F MD D 8MM 4C R3.0	8.0	3.0	16	60	8



CÓDIGO	D1	R	L2	L1	D2
F MD D 10MM 4C R0.5	10.0	0.5	20	75	10
F MD D 10MM 4C R1.0	10.0	1.0	20	75	10
F MD D 10MM 4C R1.5	10.0	1.5	20	75	10
F MD D 10MM 4C R2.0	10.0	2.0	20	75	10
F MD D 10MM 4C R3.0	10.0	3.0	20	75	10
F MD D 12MM 4C R0.5	12.0	0.5	24	75	12
F MD D 12MM 4C R1.0	12.0	1.0	24	75	12
F MD D 12MM 4C R1.5	12.0	1.5	24	75	12
F MD D 12MM 4C R2.0	12.0	2.0	24	75	12
F MD D 12MM 4C R3.0	12.0	3.0	24	75	12

HRC
>55

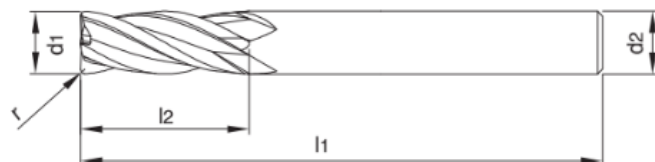
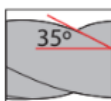
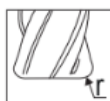
35°

TiCrSiN

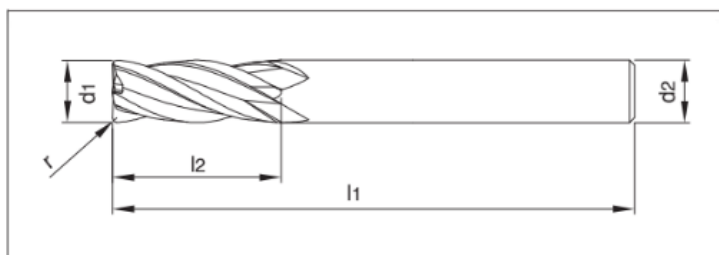
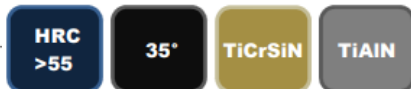
TiAlN



4 Cortes



CÓDIGO	D1	R	L2	L1	D2
F MD D 2MM 4C R0.5 L H4	2.0	0.5	4	75	4
F MD D 3MM 4C R0.5 L	3.0	0.5	6	75	3
F MD D 3MM 4C R0.5 L H4	3.0	0.5	6	75	4
F MD D 3MM 4C R1.0 L	3.0	1.0	6	75	3
F MD D 3MM 4C R1.0 L H4	3.0	1.0	6	75	4
F MD D 4MM 4C R0.5 L	4.0	0.5	8	75	4
F MD D 4MM 4C R1.0 L	4.0	1.0	8	75	4
F MD D 5MM 4C R0.5 L	5.0	0.5	10	75	5
F MD D 5MM 4C R1.0 L	5.0	1.0	10	75	5
F MD D 6MM 4C R0.5 L	6.0	0.5	12	75	6
F MD D 6MM 4C R1.0 L	6.0	1.0	12	75	6
F MD D 8MM 4C R0.5 L	8.0	0.5	16	75	8
F MD D 8MM 4C R1.0 L	8.0	1.0	16	75	8



CÓDIGO	D1	R	L2	L1	D2
F MD D 4MM 4C R0.5 XL	4.0	0.5	8	100	4
F MD D 4MM 4C R0.5 XL H6	4.0	0.5	8	100	6
F MD D 4MM 4C R1.0 XL	4.0	1.0	8	100	4
F MD D 4MM 4C R1.0 XL H6	4.0	1.0	8	100	6
F MD D 5MM 4C R0.5 XL	5.0	0.5	10	100	5
F MD D 5MM 4C R1.0 XL	5.0	1.0	10	100	5
F MD D 6MM 4C R0.5 XL	6.0	0.5	12	100	6
F MD D 6MM 4C R1.0 XL	6.0	1.0	12	100	6
F MD D 8MM 4C R0.5 XL	8.0	0.5	16	100	8
F MD D 8MM 4C R1.0 XL	8.0	1.0	16	100	8
F MD D 10MM 4C R0.5 XL	10.0	0.5	20	100	10
F MD D 10MM 4C R1.0 XL	10.0	1.0	20	100	10
F MD D 12MM 4C R0.5 XL	12.0	0.5	24	100	12
F MD D 12MM 4C R1.0 XL	12.0	1.0	24	100	12
F MD D 10MM 4C R5.0 EXL	10.0	0.5	20	150	10
F MD D 12MM 4C R1.0 EXL	12.0	0.5	24	150	12

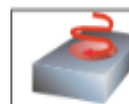
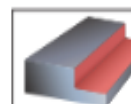
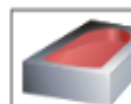
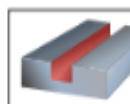
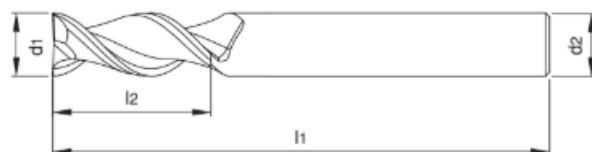
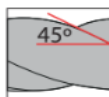
HRC
>55

45°

POLIDA



2 Cortes

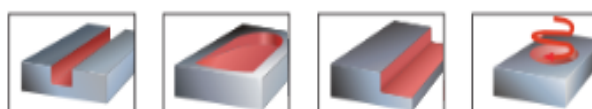
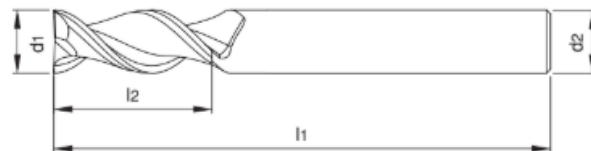


CÓDIGO	D1	L2	L1	D2
F MD D 1MM 2C ALUM.	1.0	3	50	3
F MD D 1MM 2C ALUM. H6	1.0	3	50	6
F MD D 1.5MM 2C ALUM. H4	1.5	4.5	50	4
F MD D 2MM 2C ALUM.	2.0	6	50	3
F MD D 2MM 2C ALUM. H6	2.0	6	50	6
F MD D 2.5MM 2C ALUM. H4	2.5	7	50	4
F MD D 3MM 2C ALUM.	3.0	8	50	3
F MD D 3MM 2C ALUM. H4	3.0	8	50	4
F MD D 3MM 2C ALUM. H6	3.0	8	50	6
F MD D 4MM 2C ALUM.	4.0	11	50	4
F MD D 4MM 2C ALUM. H6	4.0	11	50	6
F MD D 5MM 2C ALUM.	5.0	13	50	5
F MD D 6MM 2C ALUM.	6.0	15	50	6
F MD D 7MM 2C ALUM.	7.0	18	60	7
F MD D 8MM 2C ALUM.	8.0	20	60	8
F MD D 9MM 2C ALUM.	9.0	23	75	9
F MD D 10MM 2C ALUM.	10.0	25	75	10
F MD D 12MM 2C ALUM.	12.0	30	75	12

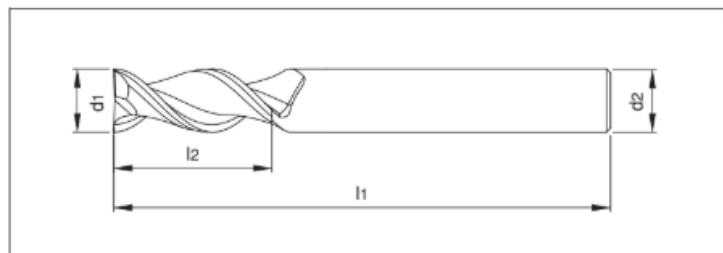
HRC
>55

45°

POLIDA



CÓDIGO	D1	L2	L1	D2
F MD D 1MM 2C ALUM. L	1.0	5	75	3
F MD D 1MM 2C ALUM. L H6	1.0	5	75	6
F MD D 2MM 2C ALUM. L H4	2.0	9	75	4
F MD D 2MM 2C ALUM. L H6	2.0	9	75	6
F MD D 3MM 2C ALUM. L	3.0	12	75	3
F MD D 3MM 2C ALUM. L H6	3.0	12	75	6
F MD D 4MM 2C ALUM. L	4.0	16	75	4
F MD D 4MM 2C ALUM. L H6	4.0	16	75	6
F MD D 5MM 2C ALUM. L	5.0	20	75	5
F MD D 6MM 2C ALUM. L	6.0	25	75	6
F MD D 8MM 2C ALUM. L	8.0	30	75	8
F MD D 9MM 2C ALUM. L	9.0	23	75	9
F MD D 10MM 2C ALUM. L	10.0	25	75	10
F MD D 12MM 2C ALUM. L	12.0	30	75	12



CÓDIGO	D1	L2	L1	D2
F MD D 3MM 2C ALUM. XL	3.0	15	100	3
F MD D 3MM 2C ALUM. XL H6	3.0	15	100	6
F MD D 4MM 2C ALUM. XL	4.0	20	100	4
F MD D 4MM 2C ALUM. XL H6	4.0	20	100	6
F MD D 5MM 2C ALUM. XL	5.0	25	100	5
F MD D 6MM 2C ALUM. XL	6.0	30	100	6
F MD D 8MM 2C ALUM. XL	8.0	35	100	8
F MD D 10MM 2C ALUM. XL	10.0	40	100	10
F MD D 12MM 2C ALUM. XL	12.0	45	100	12
F MD D 16MM 2C ALUM. XL	16.0	40	100	16
F MD D 20MM 2C ALUM. XL	20.0	40	100	20
F MD D 8MM 2C ALUM. EXL	8.0	40	150	8
F MD D 10MM 2C ALUM. EXL	10.0	50	150	10
F MD D 12MM 2C ALUM. EXL	12.0	50	150	12
F MD D 16MM 2C ALUM. EXL	16.0	70	150	16
F MD D 20MM 2C ALUM. EXL	20.0	80	150	20

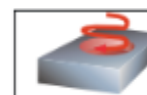
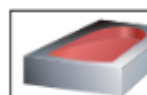
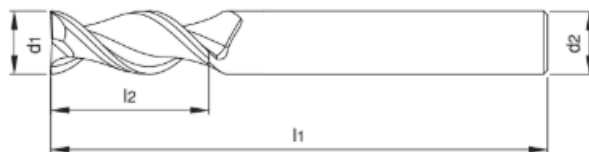
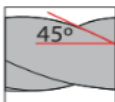
HRC
>55

45°

POLIDA



3 Cortes



CÓDIGO	D1	L2	L1	D2
F MD D 1MM 3C ALUM. H4	1.0	3	50	4
F MD D 1MM 3C ALUM. H6	1.0	3	50	6
F MD D 1.5MM 3C ALUM. H4	1.5	4.5	50	4
F MD D 2MM 3C ALUM. H4	2.0	6	50	4
F MD D 2MM 3C ALUM. H6	2.0	6	50	6
F MD D 2.5MM 3C ALUM. H4	2.5	7	50	4
F MD D 3MM 3C ALUM.	3.0	8	50	3
F MD D 3MM 3C ALUM. H4	3.0	8	50	4
F MD D 3MM 3C ALUM. H6	3.0	8	50	6
F MD D 4MM 3C ALUM.	4.0	11	50	4
F MD D 4MM 3C ALUM. H6	4.0	11	50	6
F MD D 5MM 3C ALUM.	5.0	13	50	5
F MD D 6MM 3C ALUM.	6.0	15	50	6
F MD D 7MM 3C ALUM.	7.0	18	60	8
F MD D 8MM 3C ALUM.	8.0	20	60	8

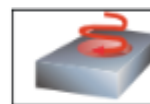
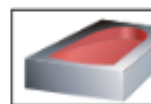
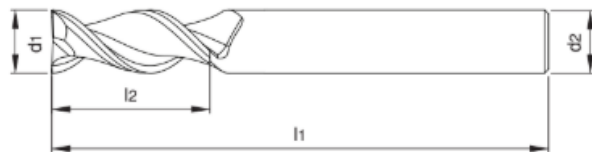
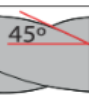
HRC
>55

45°

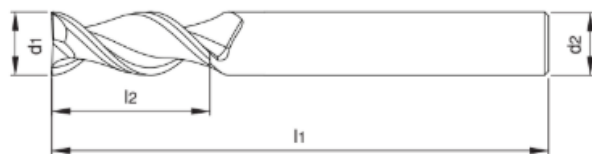
POLIDA



3 Cortes



CÓDIGO	D1	L2	L1	D2
F MD D 1MM 3C ALUM. L H4	1.0	5	75	4
F MD D 1MM 3C ALUM. L H6	1.0	5	75	6
F MD D 2MM 3C ALUM. L H4	2.0	9	75	4
F MD D 2MM 3C ALUM. L H6	2.0	9	75	6
F MD D 3MM 3C ALUM. L	3.0	12	75	3
F MD D 3MM 3C ALUM. L H6	3.0	12	75	6
F MD D 4MM 3C ALUM. L	4.0	16	75	4
F MD D 4MM 3C ALUM. L H6	4.0	16	75	6
F MD D 5MM 3C ALUM. L	5.0	20	75	5
F MD D 6MM 3C ALUM. L	6.0	25	75	6
F MD D 8MM 3C ALUM. L	8.0	30	75	8

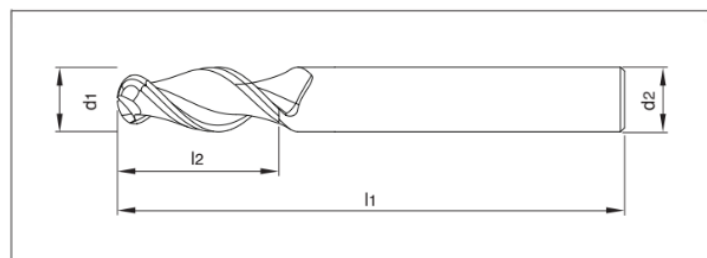
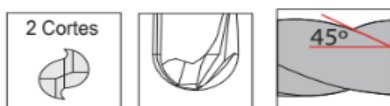


CÓDIGO	D1	L2	L1	D2
F MD D 3MM 3C ALUM. XL	3.0	15	100	3
F MD D 3MM 3C ALUM. XL H6	3.0	15	100	6
F MD D 4MM 3C ALUM. XL	4.0	20	100	4
F MD D 4MM 3C ALUM. XL H6	4.0	20	100	6
F MD D 5MM 3C ALUM. XL	5.0	25	100	5
F MD D 6MM 3C ALUM. XL	6.0	30	100	6
F MD D 8MM 3C ALUM. XL	8.0	35	100	8
F MD D 10MM 3C ALUM. XL	10.0	40	100	10
F MD D 12MM 3C ALUM. XL	12.0	45	100	12
F MD D 16MM 3C ALUM. XL	16.0	40	100	16
F MD D 20MM 3C ALUM. XL	20.0	40	100	20
F MD D 8MM 3C ALUM. EXL	8.0	40	150	8
F MD D 10MM 3C ALUM. EXL	10.0	50	150	10
F MD D 12MM 3C ALUM. EXL	12.0	50	150	12
F MD D 16MM 3C ALUM. EXL	16.0	70	150	16
F MD D 20MM 3C ALUM. EXL	20.0	80	150	20

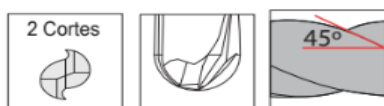
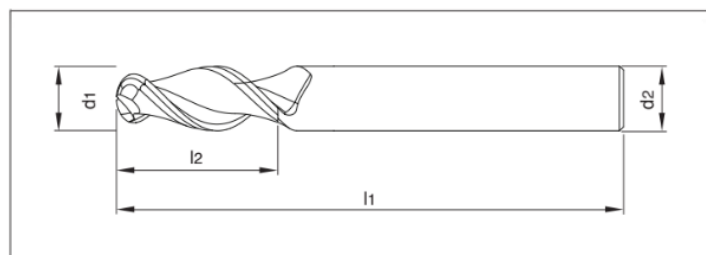
HRC
>55

45°

POLIDA



CÓDIGO	D1	L2	L1	D2
F MD ESF. D 1MM 2C ALUM. H4	1.0	2	50	4
F MD ESF. D 1MM 2C ALUM. H6	1.0	2	50	6
F MD ESF. D 1.5MM 2C ALUM. H4	1.5	2	50	4
F MD ESF. D 2MM 2C ALUM. H4	2.0	3	50	4
F MD ESF. D 2MM 2C ALUM. H6	2.0	4	50	6
F MD ESF. D 2.5MM 2C ALUM. H4	2.5	4	50	4
F MD ESF. D 3MM 2C ALUM.	3.0	5	50	3
F MD ESF. D 3MM 2C ALUM. H4	3.0	6	50	4
F MD ESF. D 3MM 2C ALUM. H6	3.0	6	50	6
F MD ESF. D 3.5MM 2C ALUM. H4	3.5	6	50	4
F MD ESF. D 4MM 2C ALUM.	4.0	7	50	4
F MD ESF. D 4MM 2C ALUM.	4.0	8	50	6
F MD ESF. D 5MM 2C ALUM.	5.0	10	50	5
F MD ESF. D 6MM 2C ALUM.	6.0	12	50	6
F MD ESF. D 8MM 2C ALUM.	8.0	16	50	8

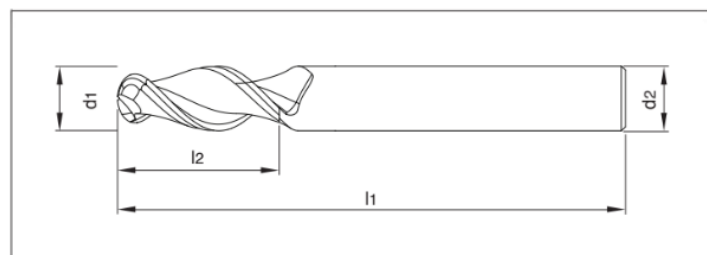


CÓDIGO	D1	L2	L1	D2
F MD ESF. D 1MM 2C ALUM. L H4	1.0	2	75	4
F MD ESF. D 1MM 2C ALUM. L H6	1.0	2	75	6
F MD ESF. D 1.5MM 2C ALUM. L H4	1.0	3	75	4
F MD ESF. D 2MM 2C ALUM. L H4	2.0	4	75	4
F MD ESF. D 2MM 2C ALUM. L H6	2.0	4	75	6
F MD ESF. D 2.5MM 2C ALUM. L H4	2.0	5	75	4
F MD ESF. D 3MM 2C ALUM. L	3.0	6	75	3
F MD ESF. D 3MM 2C ALUM. L H4	3.0	6	75	4
F MD ESF. D 3MM 2C ALUM. L H6	3.0	6	75	6
F MD ESF. D 3.5MM 2C ALUM. L H4	3.5	7	75	4
F MD ESF. D 4MM 2C ALUM. L	4.0	8	75	4
F MD ESF. D 4MM 2C ALUM. L H6	4.0	8	75	6
F MD ESF. D 5MM 2C ALUM. L	5.0	10	75	5
F MD ESF. D 6MM 2C ALUM. L	6.0	12	75	5
F MD ESF. D 8MM 2C ALUM. L	8.0	16	75	8
F MD ESF. D 10MM 2C ALUM. L	10.0	20	75	10
F MD ESF. D 12MM 2C ALUM. L	12.0	24	75	12

HRC
>55

45°

POLIDA



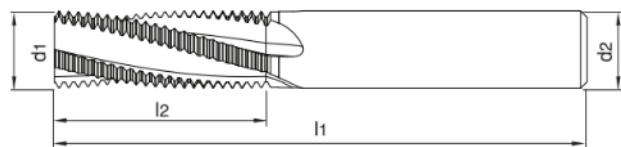
CÓDIGO	D1	L2	L1	D2
F MD ESF. D 6MM 2C ALUM. XL	6.0	12	100	6
F MD ESF. D 8MM 2C ALUM. XL	8.0	16	100	8
F MD ESF. D 10MM 2C ALUM. XL	10.0	20	100	10
F MD ESF. D 12MM 2C ALUM. XL	12.0	24	100	12
F MD ESF. D 16MM 2C ALUM. XL	16.0	30	100	16
F MD ESF. D 20MM 2C ALUM. XL	20.0	30	100	20

HRC
>55

35°

TiCrSiN

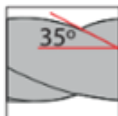
TiAlN



4 Cortes

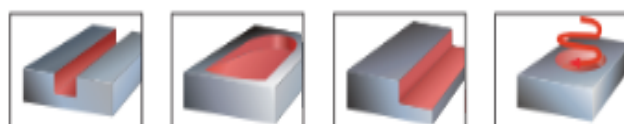
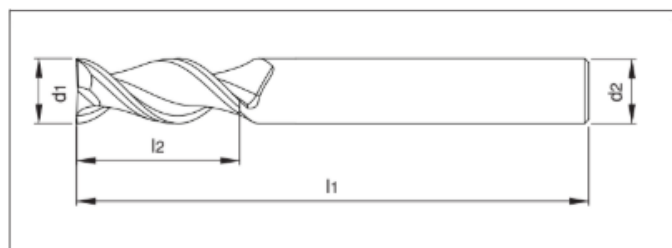


35°

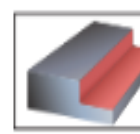
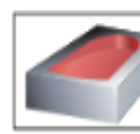
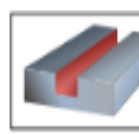
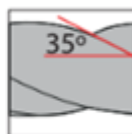
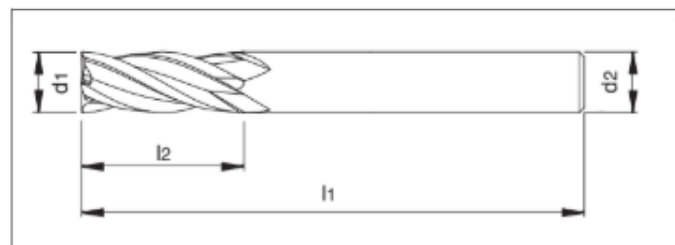
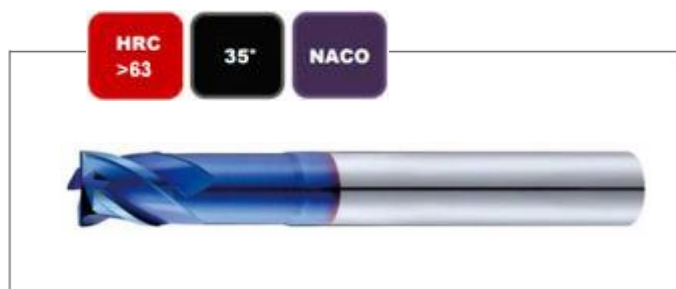


CÓDIGO STANDARD	D1	L2	L1	D2
F MD D 6MM 4C DESB	6.0	15	50	6
F MD D 8MM 4C DESB	8.0	20	60	8
F MD D 10MM 4C DESB	10.0	30	75	10
F MD D 12MM 4C DESB	12.0	30	75	12

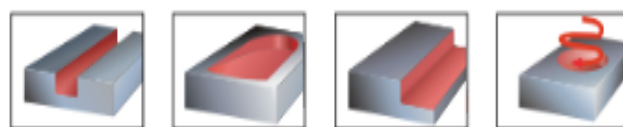
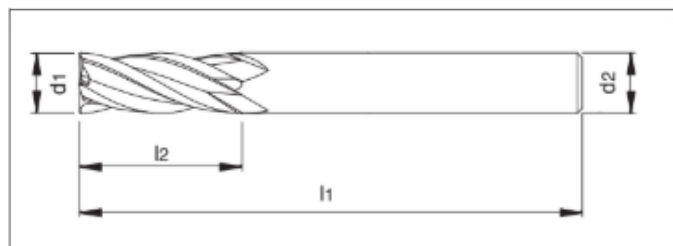
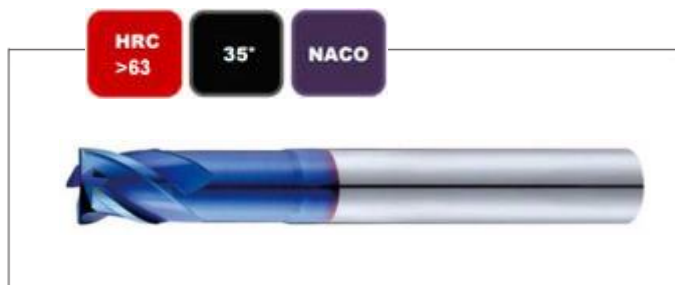
CÓDIGO LONGA	D1	L2	L1	D2
F MD D 6MM 4C L DESB	6.0	15	100	6
F MD D 8MM 4C L DESB	8.0	20	100	8
F MD D 10MM 4C L DESB	10.0	30	100	10
F MD D 12MM 4C L DESB	12.0	30	100	12
F MD D 16MM 4C L DESB	16.0	40	100	16
F MD D 20MM 4C L DESB	20.0	40	100	20



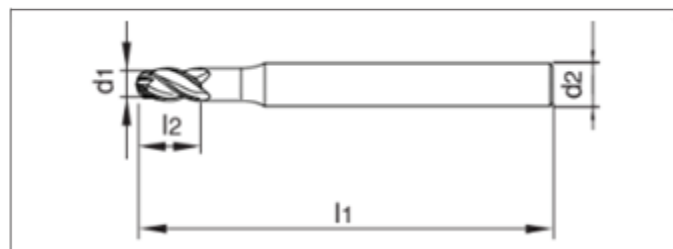
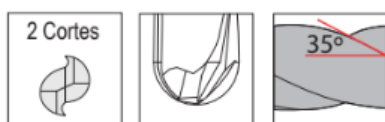
CÓDIGO	D1	L2	L1	D1
F MD D 1MM 2C HRC63 H4	1.0	1.5	50	4
F MD D 1.5MM 2C HRC63 H4	1.5	2.2	50	4
F MD D 2MM 2C HRC63 H4	2.0	3	50	4
F MD D 2.5MM 2C HRC63 H4	2.5	3.5	50	4
F MD D 3MM 2C HRC63 H4	3.0	4	50	4
F MD D 3MM 2C HRC63	3.0	4	50	3
F MD D 3.5MM 2C HRC63 H4	3.5	4.5	50	4
F MD D 4MM 2C HRC63	4.0	5	50	4
F MD D 4MM 2C HRC63 H6	4.5	5.5	50	6
F MD D 5MM 2C HRC63	5.0	6	50	5
F MD D 5.5MM 2C HRC63 H6	5.5	6.5	50	6
F MD D 6MM 2C HRC63	6.0	7	50	6
F MD D 7MM 2C HRC63	7.0	8	60	7
F MD D 8MM 2C HRC63	8.0	9	60	8
F MD D 9MM 2C HRC63	9.0	10	75	9
F MD D 10MM 2C H10 HRC63	10.0	11	75	10
F MD D 11MM 2C H12 HRC63	11.0	12	75	12
F MD D 12MM 2C HRC63	12.0	13	75	12



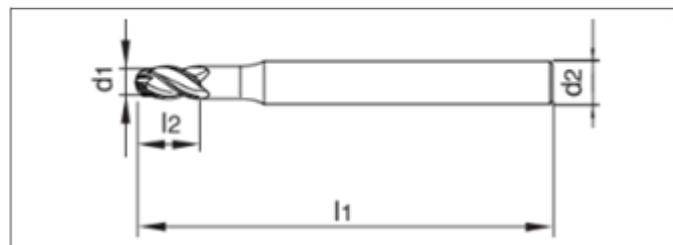
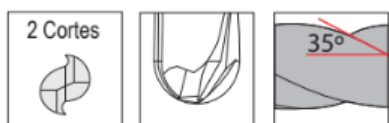
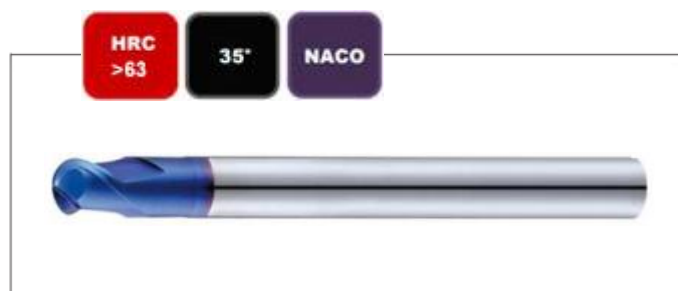
CÓDIGO	D1	L2	L1	D2
F DM D 1MM 4C HRC63 H4	1.0	1.5	50	4
F MD D 1MM 4C HRC63 H6	1.0	1.5	50	6
F MD D 1.5MM 4C HRC63 H4	1,5	2.2	50	4
F MD D 2MM 4C HRC63 H4	2.0	3	50	4
F MD D 2MM 4C HRC63 H6	2.0	3	50	6
F MD D 2.5MM 4C HRC63 H4	2.5	3.5	50	4
F MD D 3MM 4C HRC63	3.0	4	50	3
F MD D 3MM 4C HRC63 H4	3.0	4	50	4
F MD D 3MM 4C HRC63 H6	3.0	4	50	6
F MD D 4MM 4C HRC63	4.0	5	50	4
F MD D 4MM 4C HRC63 H6	4.0	5	50	6
F MD D 5MM 4C HRC63	5.0	6	50	5



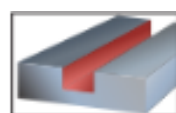
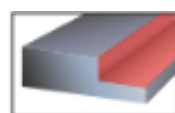
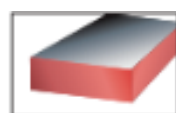
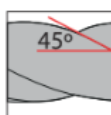
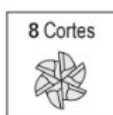
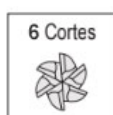
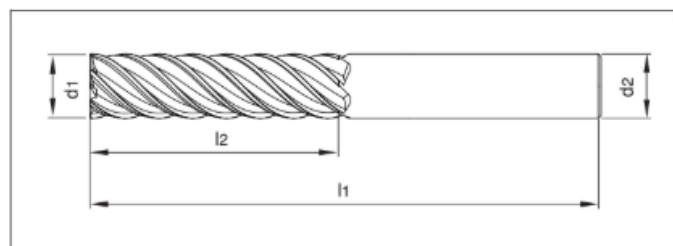
CÓDIGO	D1	L2	L1	D2
F MD D 6MM 4C HRC63	6.0	7	50	6
F MD D 8MM 4C HRC63	8.0	9	60	8
F MD D 10MM 4C HRC63	10.0	11	75	10
F MD D 12MM 4C HRC63	12.0	13	75	12
F MD D 13MM 4C HRC63	13.0	33	100	13
F MD D 14MM 4C HRC63	14.0	35	100	14
F MD D 15MM 4C HRC63	15.0	38	100	15
F MD D 16MM 4C HRC63	16.0	40	100	16
F MD D 17MM 4C HRC63	17.0	40	100	17
F MD D 18MM 4C HRC63	18.0	40	100	18
F MD D 19MM 4C HRC63	19.0	40	100	19
F MD D 20MM 4C HRC63	20.0	40	100	20



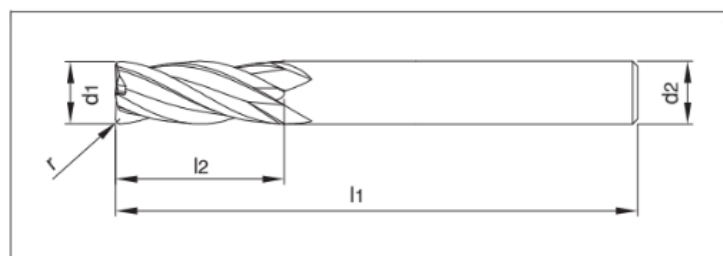
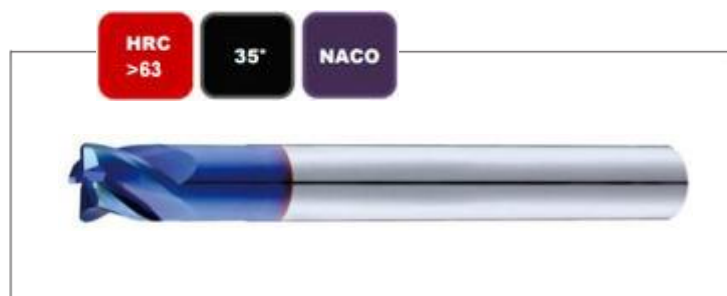
CÓDIGO	D1	L2	L1	D2
F MD ESF. D 1MM 2C HRC63 H4	1.0	1.5	50	4
F MD ESF. D 1MM 2C HRC63 H6	1.0	1.5	50	6
F MD ESF. D 1.5MM 2C HRC63 H4	1.5	2.2	50	4
F MD ESF. D 2MM 2C HRC63 H4	2.0	3	50	4
F MD ESF. D 2MM 2C HRC63 H6	2.0	3	50	6
F MD ESF. D 2.5MM 2C HRC63 H4	2.5	3.5	50	4
F MD ESF. D 3MM 2C HRC63	3.0	4	50	3
F MD ESF. D 3MM 2C HRC63 H4	3.0	4	50	4
F MD ESF. D 3MM 2C HRC63 H6	3.0	4	50	6
F MD ESF. D 4MM 2C HRC63	4.0	5	50	4
F MD ESF. D 4MM 2C HRC63 H6	4.0	5	50	6
F MD ESF. D 5MM 2C HRC63	5.0	6	50	5
F MD ESF. D 6MM 2C HRC63	6.0	7	50	6
F MD ESF. D 8MM 2C HRC63	8.0	9	60	8
F MD ESF. D 10MM 2C HRC63	10.0	11	75	10
F MD ESF. D 12MM 2C HRC63	12.0	14	75	12



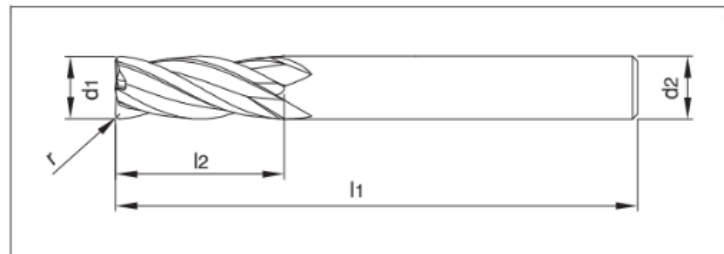
CÓDIGO	D1	L2	L1	D1
F MD ESF. D 1MM 2C L HRC63 H4	1.0	1	75	4
F MD ESF. D 1.5MM 2C L HRC63 H4	1.5	1.5	75	4
F MD ESF. D 2MM 2C L HRC63 H4	2.0	2	75	4
F MD ESF. D 2.5MM 2C L HRC63 H4	2.5	2.5	75	4
F MD ESF. D 3MM 2C L HRC63	3.0	3	75	3
F MD ESF. D 3MM 2C L HRC63 H4	3.0	3	75	4
F MD ESF. D 4MM 2C L HRC63	4.0	8	100	4
F MD ESF. D 5MM 2C L HRC63	5.0	10	100	5
F MD ESF. D 6MM 2C L HRC63	6.0	12	100	6
F MD ESF. D 8MM 2C L HRC63	8.0	16	100	8
F MD ESF. D 10MM 2C L HRC63	10.0	20	100	10
F MD ESF. D 12MM 2C L HRC63	12.0	24	100	12



CÓDIGO	D1	L2	L1	D2
FMD D 3MM 6C HRC68 H6	3.0	8	50	6
FMD D 4MM 6C HRC68 H6	4.0	11	50	6
FMD D 5MM 6C HRC68 H6	5.0	13	50	6
FMD D 6MM 6C HRC68	6.0	16	50	6
FMD D 8MM 6C HRC68	8.0	20	60	8
FMD D 10MM 6C HRC68	10.0	25	75	10
FMD D 12MM 6C HRC68	12.0	30	75	12
FMD D 16MM 6C HRC68	16.0	40	100	16
FMD D 20MM 6C HRC68	20.0	45	100	20
FMD D 25MM 6C HRC68	25.0	45	100	25
FMD D 16MM 8C HRC68	16.0	40	100	16
FMD D 20MM 8C HRC68	20.0	45	100	20
FMD D 25MM 8C HRC68	25.0	45	100	25

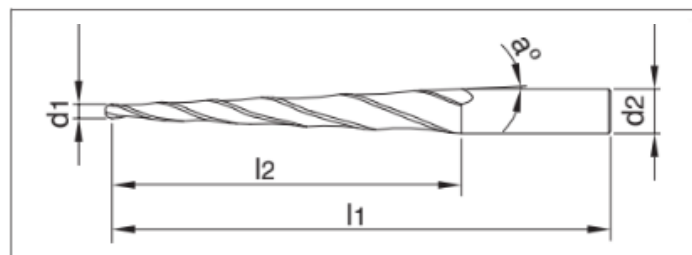
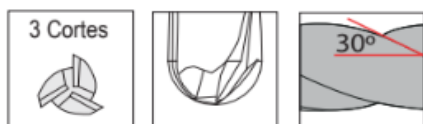


CÓDIGO	D1	R	L2	L1	D2
F MD D 1MM 4C R0.2 HRC63 H4	1.0	0.2	1.5	50	4
F MD D 1.5MM 4C R0.5 HRC63 H4	1.5	0.5	3	50	4
F MD D 2MM 4C R2.0 HRC63 H4	2.0	0.2	3	50	4
F MD D 2MM 4C R0.5 HRC63 H4	2.0	0.5	3	50	4
F MD D 3MM 4C R0.2 HRC63	3.0	0.2	4	50	3
F MD D 3MM 4C R0.5 HRC63	3.0	0.5	4	50	3
F MD D 3MM 4C R0.5 HRC63 H4	3.0	0.5	4	30	4
F MD D 4MM 4C R0.2 HRC63	4.0	0.2	5	50	4
F MD D 4MM 4C R0.5 HRC63	4.0	0.5	5	50	4
F MD D 4MM 4C R1.0 HRC63	4.0	1.0	5	50	4
F MD D 5MM 4C R0.2 HRC63	5.0	0.2	6	50	6
F MD D 5MM 4C R0.5 HRC63	5.0	0.5	6	50	5
F MD D 5MM 4C R1.0 HRC63	5.0	1.0	6	50	6
F MD D 6MM 4C R0.2 HRC63	6.0	0.2	7	50	6
F MD D 6MM 4C R0.5 HRC63	6.0	0.5	7	50	6
F MD D 6MM 4C R1.0 HRC63	6.0	1.0	7	50	6



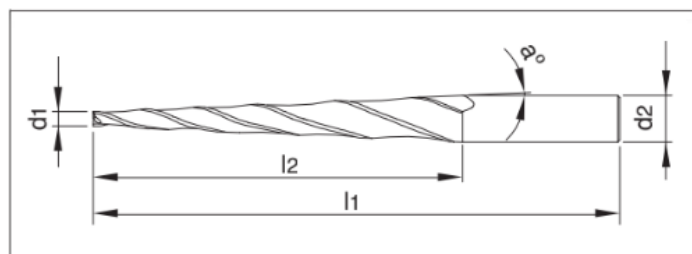
CÓDIGO	D1	R	L2	L1	D2
F MD D 8MM 4C R0.2 HRC63	8.0	0.2	9	60	8
F MD D 8MM 4C R0.5 HRC63	8.0	0.5	9	60	8
F MD D 8MM 4C R1.0 HRC63	8.0	1.0	9	60	8
F MD D 10MM 4C R0.2 HRC63	10.0	0.2	25	75	10
F MD D 10MM 4C R0.5 HRC63	10.0	0.5	25	75	10
F MD D 10MM 4C R1.0 HRC63	10.0	1.0	25	75	10
F MD D 10MM 4C R1.5 HRC63	10.0	1.5	25	75	10
F MD D 10MM 4C R2.0 HRC63	10.0	2.0	25	75	10
F MD D 12MM 4C R0.2 HRC63	12.0	0.2	30	75	12
F MD D 12MM 4C R0.5 HRC63	12.0	0.5	30	75	12
F MD D 12MM 4C R1.0 HRC63	12.0	1.0	30	75	12
F MD D 12MM 4C R1.5 HRC63	12.0	1.5	30	75	12
F MD D 12MM 4C R2.0 HRC63	12.0	2.0	30	75	12

FRESAS TOPO ESFÉRICA DE METAL DURO 3 CORTES CÔNICA



CÓDIGO	D1	L2	L1	D2	A°
F MD D 3MM 3C H6 CÔNICA	3.0	28	62	6	1.5°
F MD D 3MM 3C H8 CÔNICA	3.0	32	75	8	3°
F MD D 3MM 3C H10 CÔNICA	3.0	40	80	10	5°

FRESAS TOPO RETO DE METAL DURO 3 CORTES CÔNICA



CÓDIGO	D1	L2	L1	D2	A°
F MD D 3MM 3C H6 CÔNICA	3.0	28	62	6	1.5°
F MD D 3MM 3C H8 CÔNICA	3.0	32	75	8	3°
F MD D 4MM 3C H8 CÔNICA	4.0	38	80	8	3°
F MD D 3MM 3C H10 CÔNICA	3.0	40	80	10	5°
F MD D 4MM 3C H10 CÔNICA	4.0	34	80	10	5°

TIAIN



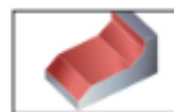
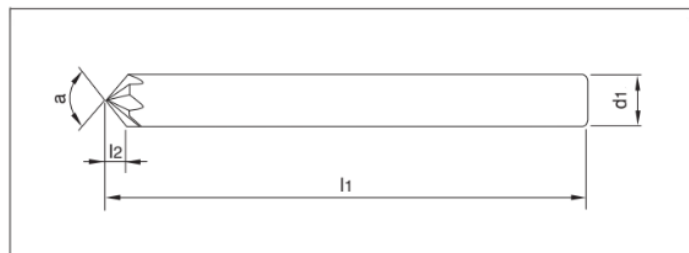
3 Cortes



4 Cortes



6 Cortes



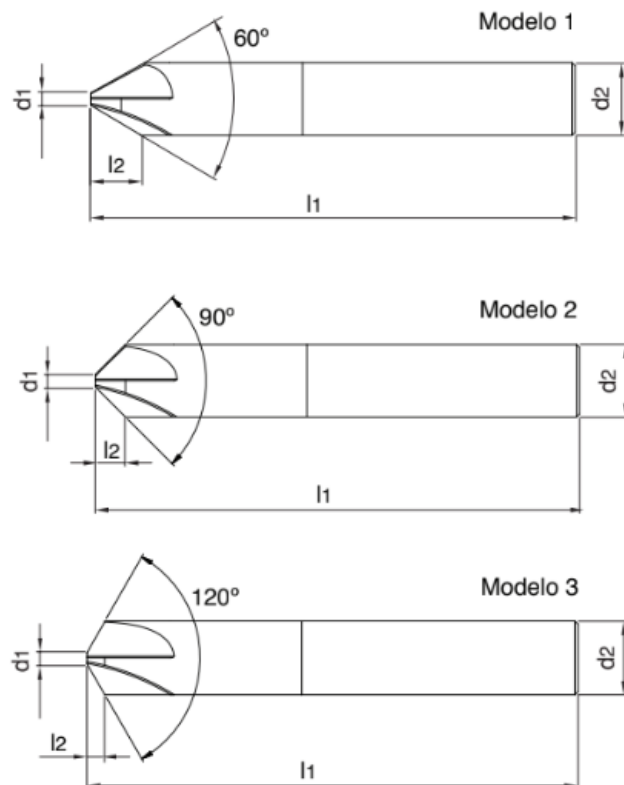
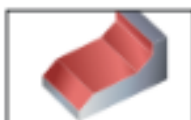
CÓDIGO	D1	A°	L2	L1	Z
F MD D 4MM 3C 60° CHANFRAR	4	60°	2	60	3
F MD D 6MM 4C 60° CHANFRAR	6	60°	3	60	4
F MD D 8MM 4C 60° CHANFRAR	8	60°	4	80	4
F MD D 10MM 6C 60° CHANFRAR	10	60°	5	100	6
F MD D 12MM 6C 60° CHANFRAR	12	60°	6	120	6

CÓDIGO	D1	A°	L2	L1	Z
F MD D 4MM 3C 90° CHANFRAR	4	90°	2	60	3
F MD D 6MM 4C 90° CHANFRAR	6	90°	3	60	4
F MD D 8MM 4C 90° CHANFRAR	8	90°	4	80	4
F MD D 10MM 6C 90° CHANFRAR	10	90°	5	100	6
F MD D 12MM 6C 90° CHANFRAR	12	90°	6	120	6

TiAIN



4 Cortes



CÓDIGO

D1

L2

L1

D2

ÂNGULO

F MD D 1MM 4C 90° Chanfrar H4

1

1.5

50

4

90°

F MD D 2MM 4C 60° Chanfrar H6

2

3

57

6

60°

F MD D 2MM 4C 90° Chanfrar H6

2

2

57

6

90°

F MD D 2MM 4C 120° Chanfrar H6

2

1

57

6

120°

F MD D 2MM 4C 60° Chanfrar H8

2

5

63

8

60°

F MD D 2MM 4C 90° Chanfrar H8

2

3

63

8

90°

F MD D 2MM 4C 120° Chanfrar H8

2

1

63

8

120°

F MD D 2MM 4C 60° Chanfrar H10

2

7

72

10

60°

F MD D 2MM 4C 90° Chanfrar H10

2

4

72

10

90°

F MD D 2MM 4C 120° Chanfrar H10

2

2

72

10

120°

F MD D 2MM 4C 60° Chanfrar H12

2

8

80

12

60°

F MD D 2MM 4C 90° Chanfrar H12

2

5

80

12

90°

F MD D 2MM 4C 120° Chanfrar H12

2

2

80

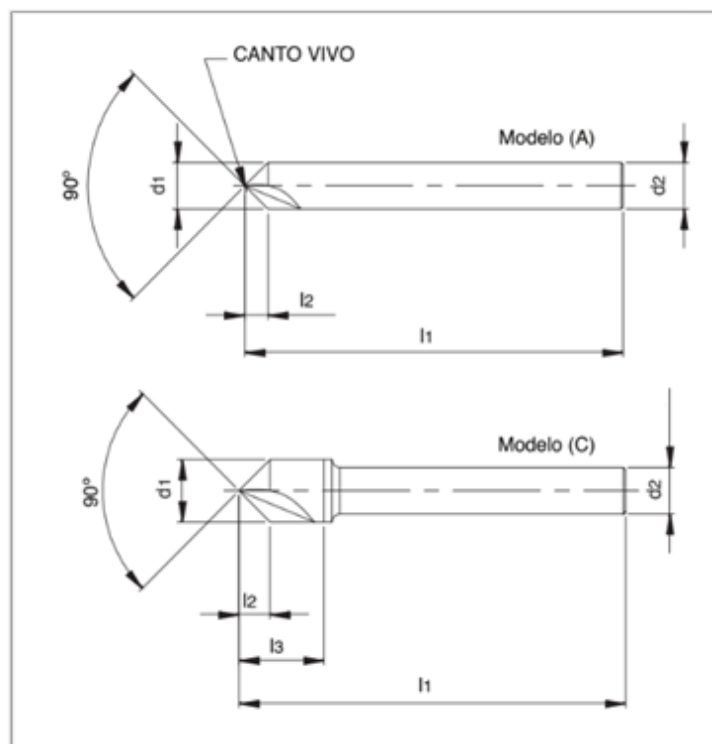
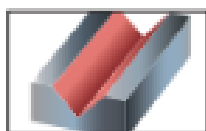
12

120°

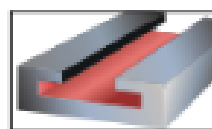
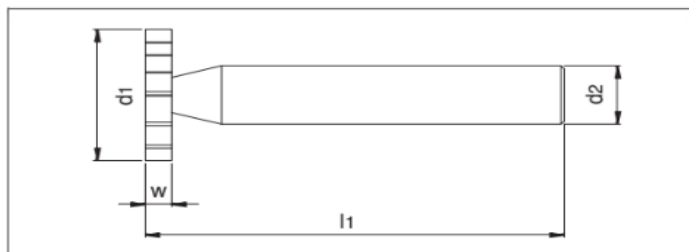
TiAIN



2 Cortes



CÓDIGO	D1	L2	L1	D2	L3
F MD 6MM V-CUTTER	6	3	50	6	-
F MD 8MM V-CUTTER	8	4	63	6	20
F MD 10MM V-CUTTER	10	5	63	6	20
F MD 12.7MM V-CUTTER	12.7	6	68	6	25

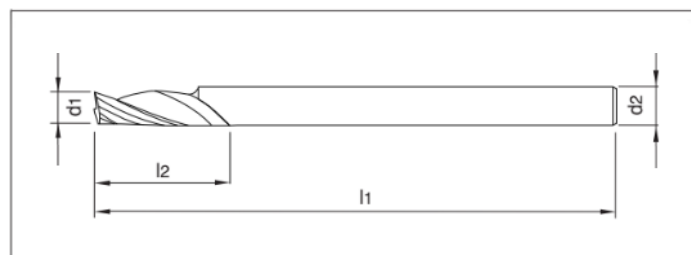
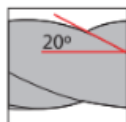
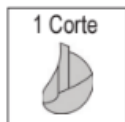


CÓDIGO	D1	W	L1	D2	Z
F MD WOOD 10.5 10C W2	10.5	2	50	6	10
F MD WOOD 10.5 10C W2.5	10.5	2.5	50	6	10
F MD WOOD 10.5 10C W3	10.5	3	50	6	10
F MD WOOD 13.5 10C W2	13.5	2	56	10	10
F MD WOOD 13.5 10C W3	13.5	3	56	10	10
F MD WOOD 13.5 10C W4	13.5	4	56	10	10
F MD WOOD 16.5 10C W3	16.5	3	56	10	10
F MD WOOD 16.5 10C W4	16.5	4	56	10	10
F MD WOOD 16.5 10C W5	16.5	5	56	10	10
F MD WOOD 19.5 12C W3	19.5	3	63	10	12
F MD WOOD 19.5 12C W4	19.5	4	63	10	12
F MD WOOD 19.5 12C W5	19.5	5	63	10	12
F MD WOOD 19.5 12C W6	19.5	6	63	10	12
F MD WOOD 22.5 12C W4	22.5	4	63	10	12
F MD WOOD 22.5 12C W5	22.5	5	63	10	12
F MD WOOD 22.5 12C W6	22.5	6	63	10	12
F MD WOOD 22.5 12C W8	22.5	8	63	10	12
F MD WOOD 25.5 14C W5	25.5	5	63	10	14
F MD WOOD 25.5 14C W6	25.5	6	63	10	14

TiAIN

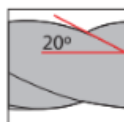
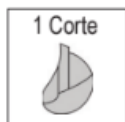
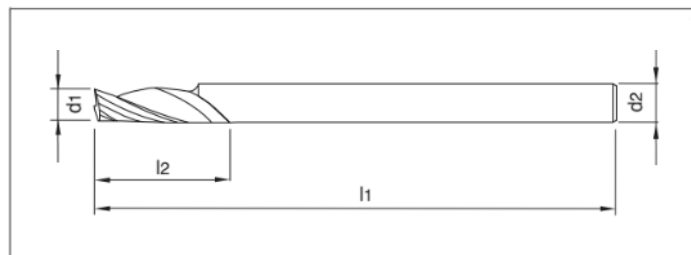


1 Corte

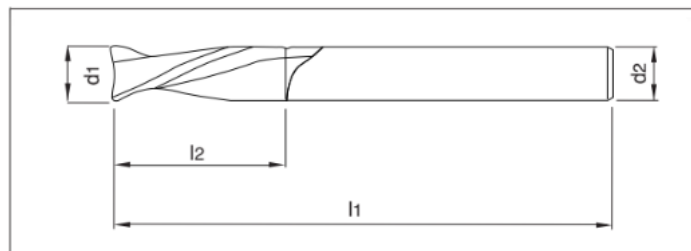
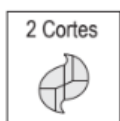


CÓDIGO	D1	L2	L1	D2
F MD D 1.5MM 1C AC	1.5	4	38	3
F MD D 2MM 1C AC	2.0	8	38	3
F MD D 2MM 1C AC	2.0	6	64	6
F MD D 2.5MM 1C AC	2.5	8	38	3
F MD D 3MM 1C AC	3.0	8	38	3
F MD D 3MM 1C AC	3.0	12	38	3
F MD D 3MM 1C AC	3.0	12	52	6
F MD D 4MM 1C AC	4.0	12	50	4
F MD D 5MM 1C AC	5.0	16	64	5
F MD D 6MM 1C AC	6.0	12	64	6

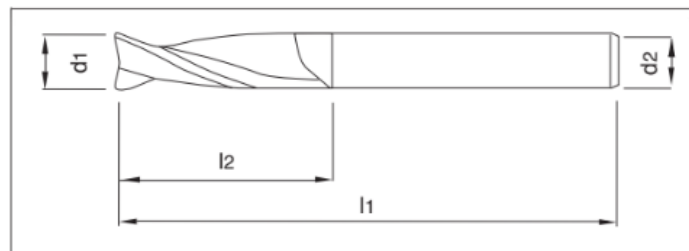
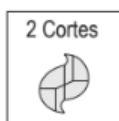
TiAIN



CÓDIGO	D1	L2	L1	D2
F MD D 8MM 1C AC	8.0	25	64	8
F MD D 3MM 1C L AC	3.0	20	64	3
F MD D 4MM 1C L AC	4.0	20	64	4
F MD D 5MM 1C L AC	5.0	30	64	5
F MD D 6MM 1C L AC	6.0	20	64	6
F MD D 8MM 1C L AC	8.0	38	76	8
F MD D 10MM 1C L AC	10.0	38	76	10
F MD D 12MM 1C L AC	12.0	38	76	12
F MD D 4MM 1C XL AC	4.0	30	64	4
F MD D 6MM 1C XL AC	6.0	30	76	6



CÓDIGO	D1	L2	L1	D2
F MD D 3MM 2C DOWN CUT	3.0	12	38	3
F MD D 3MM 2C DOWN CUT	3.0	15	50	6
F MD D 3.5MM 2C DOWN CUT	3.5	15	50	6
F MD D 4MM 2C DOWN CUT	4.0	16	64	6
F MD D 4.5MM 2C DOWN CUT	4.5	16	64	6
F MD D 5MM 2C DOWN CUT	5.0	20	64	6
F MD D 6MM 2C DOWN CUT	6.0	16	50	6
F MD D 6MM 2C DOWN CUT	6.0	25	64	6
F MD D 8MM 2C DOWN CUT	8.0	25	64	8



CÓDIGO	D1	L2	L1	D2
F MD D 3MM 2C UP CUT	3.0	12	38	3
F MD D 3MM 2C UP CUT	3.0	12	50	6
F MD D 4MM 2C UP CUT	4.0	16	50	6
F MD D 5MM 2C UP CUT	5.0	20	64	5
F MD D 6MM 2C UP CUT	6.0	25	64	6
F MD D 8MM 2C UP CUT	8.0	25	64	8
F MD D 10MM 2C UP CUT	10.0	35	76	10
F MD D 12MM 2C UP CUT	12.0	35	76	12



WWW.FERMEC.COM.BR

+55 (11) 3978 - 5515

fermec@fermec.com.br

Rua: Cecilia Calovini, 437 - Pirituba - SP

CEP: 02976-000