

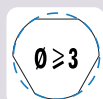
**BLUE-MASTER®**  
by *ce/esa*



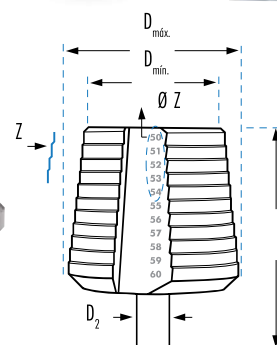
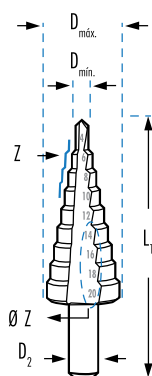
AVELLANADORES

## BROCAS ESCALONADAS DE CANALES RECTOS HSS

HSS



Ref. AV40



BM1

BM2

BM3

BM4

BM5

Ref. AV40BM25 / 26 / 27 / 28 / 29

AV40

	D min. mm	D max. mm	D2 mm	L1 mm	Z	Ø Z mm menor-mayor	HSS €	TiN €
AV40BM1B	4,0	12,0	6,0	65	5	4-6-8-10-12	40,72	64,25
AV40BM2B	4,0	12,0	6,0	65	9	4-5-6-7-8-9-10-11-12	41,77	64,62
AV40BM3B	4,0	20,0	8,0	69	9	4-6-8-10-12-14-16-18-20	53,55	82,48
AV40BM4B	4,0	30,0	10,0	96	14	4-6-8-10-12-14-16-18-20-22-24-26-28-30	87,84	133,90
AV40BM14	4,0	39,0	10,0	107	13	4-6-9-12-15-18-21-24-27-30-33-36-39	217,94	336,55
AV40BM16B	5,0	28,0	10,0	69	7	5-8-8-11,8-15,3-19-24,5-28	101,09	159,09
AV40BM35B	5,0	35,0	13,0	80	13	5-7-10-12-15-17-20-22-25-27-30-32-35	130,87	190,28
AV40BM11B	6,0	25,0	10,0	65	7	6-9-12-16-20-22,50-25	82,55	111,11
AV40BM10B	6,0	26,7	10,0	75	8	6-9-11,40-14-17,25-19-21,25-26,75	160,73	252,93
AV40BM17B	6,0	30,5	10,0	80	9	6-9-12,5-15,2-18,6-20,4-22,5-28,3-30,5	170,65	268,53
AV40BM12B	6,0	32,0	10,0	75	9	6-9-12-16-20-22,5-25-28,5-32	116,51	140,22
AV40BM18B	6,0	37,0	10,0	100	12	6-9-12,5-15,2-18,6-20,4-22,5-26-28,3-30,5-34-37	189,65	293,96
AV40BM5B	6,0	38,0	10,0	96	12	6-9-13-16-19-21-23-26-29-32-35-38	204,62	271,25
AV40BM13	6,0	40,0	13,0	105	16	6-11-17-23-29-30-31-32-33-34-35-36-37-38-39-40	282,17	319,36
AV40BM15B	6,5	32,5	10,0	79	9	6,50-8,50-10,50-12,50-16,50-20,50-25,50-29-32,50	134,90	189,06
AV40BM20	6,5	40,5	10,0	96	11	6,50-8,50-10,50-12,50-16,50-20,50-25,50-29-32,50-36,50-40,50	211,49	332,81
AV40BM21B	7,0	20,0	10,0	80	12	7-10-11-12-13-14-15-16-17-18-19-20	84,62	133,16
AV40BM22B	10,0	30,0	13,0	83	12	10-20-21-22-23-24-25-26-27-28-29-30	132,46	207,81
AV40BM25B	12,0	20,0	8,0	66	9	12-13-14-15-16-17-18-19-20	78,46	105,01
AV40BM26B	20,0	30,0	10,0	78	11	20-21-22-23-24-25-26-27-28-29-30	114,45	161,23
AV40BM27	30,0	40,0	10,0	78	11	30-31-32-33-34-35-36-37-38-39-40	171,42	220,70
AV40BM28	40,0	50,0	13,0	85	11	40-41-42-43-44-45-46-47-48-49-50	245,06	341,55
AV40BM29	50,0	60,0	13,0	85	11	50-51-52-53-54-55-56-57-58-59-60	308,77	383,55

## PARA PASAR TUBERÍAS ROSCA GAS

AV40BM6B	6,0	32,0	10,0	75	8	6-9-11,20(1/8)-14,50 (1/4)-18,20 (3/8)-22,30 (1/2)-27,90 (3/4)-32	120,88	165,71
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## PARA REMACHES CIEGOS M3 - M4 - M5 - M6 Y M7

AV40BM7B	4,8	10,6	6,0	54	5	4,80-6,40-7,20-9,60-10,65	39,39	56,20
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## PARA CONDUCCIONES ELÉCTRICAS (ANTIGUA Y NUEVA NORMA)

AV40PG21B	PG7	PG21	13,0	70	11	6,5-8,5-10,5-12,5(PG7)-15,2(PG9)-18,6(PG11) 20,4(PG13,5)-22,5(PG16)-25,5-18,3(PG21)-30,5	133,11	188,18
AV40PG29B	PG7	PG29	13,0	81	14	6,5-9-11-12,5(PG7)-15,2(PG9)-18,6(PG11)-20,4(PG13,5) 22,5(PG16)-26-28,3(PG21)-30,5-33-35-37(PG29)	171,96	241,23
AV40BM8B	8,5	32,5	10,0	70	12	8,5-10,5-12,5-14,5-16,5-18,5-20,5-23,5-25,5 28-30,5-32,5	100,91	146,22
AV40BM9B	8,5	40,5	12,0	84	16	8,5-10,5-12,5-14,5-16,5-18,5-20,5-23,5-25,5 28-30,5-32,5-34,5-36,5-38,5-40,5	143,69	216,55

## BROCAS ESCALONADAS DE CANALES RECTOS HSSCO



BM1 BM2 BM3 BM4 BM18

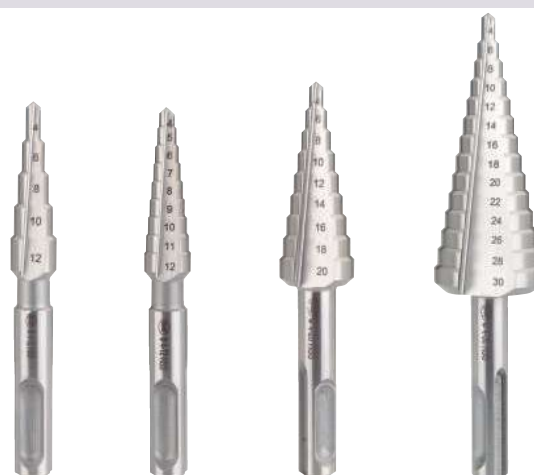
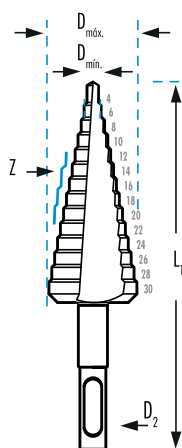
AVC40

	D mín. mm	D máx. mm	D2 mm	L1 mm	Z	Ø Z mm menor-mayor	HSSCo €	TiN €
AVC40BM1B	4,0	12,0	6,0	65	5	4-6-8-10-12	50,08	76,78
AVC40BM2B	4,0	12,0	6,0	65	9	4-5-6-7-8-9-10-11-12	52,88	92,74
AVC40BM3B	4,0	20,0	8,0	69	9	4-6-8-10-12-14-16-18-20	64,94	105,07
AVC40BM4B	4,0	30,0	10,0	96	14	4-6-8-10-12-14-16-18-20-22-24-26-28-30	100,59	164,70
AVC40BM18B	6,0	37,0	10,0	100	12	6-9-12,5-15,2-18,6-20,4-22,5-26-28,3-30,5-34-37	205,94	309,27

## BROCAS ESCALONADAS DE CANALES RECTOS HSS SDS-PLUS



Ref. AV40BMSDS



BMSDS1 BMSDS2 BMSDS3 BMSDS4

AV40BMSDS

	D mín. mm	D máx. mm	D2 mm	L1 mm	Z	Ø Z mm menor-mayor	HSS €	TiN €
AV40BMSDS1B	4,0	12,0	8,8	95,5	5	4-6-8-10-12	43,16	68,11
AV40BMSDS2B	4,0	12,0	8,8	95,5	9	4-5-6-7-8-9-10-11-12	44,27	68,50
AV40BMSDS3B	4,0	20,0	8,8	104,0	9	4-6-8-10-12-14-16-18-20	56,76	87,43
AV40BMSDS4B	4,0	30,0	8,8	126,0	14	4-6-8-10-12-14-16-18-20-22-24-26-28-30	93,11	141,93

## BROCAS ESCALONADAS DE CANALES HELICOIDALES HSS

HSS

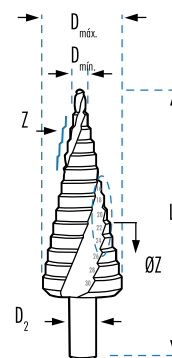
Ref. AV42



BM2

BM3

BM4



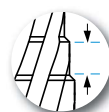
								AV42	
	D mín. mm	D máx. mm	D2 mm	L1 mm	Z	Ø Z mm menor-mayor		HSS €	TiN €
AV42BM1B	4,0	12,0	6,0	65	5	4-6-8-10-12		45,71	65,46
AV42BM2B	4,0	12,0	6,0	68	9	4-5-6-7-8-9-10-11-12		46,17	68,17
AV42BM3B	4,0	20,0	8,0	69	9	4-6-8-10-12-14-16-18-20		61,59	95,30
AV42BM4B	4,0	30,0	10,0	96	14	4-6-8-10-12-14-16-18-20-22-24-26-28-30		101,51	151,72
AV42BM5B	6,0	38,0	10,0	96	12	6-9-13-16-19-21-23-26-29-32-35-38		218,71	285,25
AV42BM11B	6,0	25,0	10,0	65	7	6-9-12-16-20-22,50-25		85,98	119,36
AV42BM12B	6,0	32,0	10,0	75	9	6-9-12-16-20-22,5-25-28,5-32		124,60	159,36
AV42BM13	6,0	40,0	13,0	105	16	6-11-17-23-29-30-31-32-33-34-35-36-37-38-39-40		288,78	326,36
AV42BM8B	8,5	32,5	10,0	70	12	8,5-10,5-12,5-14,5-16,5-18,5-20,5-23,5 25,5-28-30,5-32,5		113,18	155,25
AV42BM9B	8,5	40,5	12,0	84	16	8,5-10,5-12,5-14,5-16,5-18,5-20,5-23,5 25,5-28-30,5-32,5-34,5-36,5-38,5-40,5		177,98	231,55

## BROCAS MEGA ESCALONADAS DE CANALES HELICOIDALES HSS

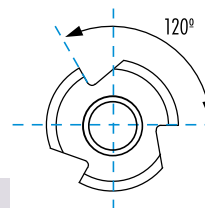
NEW

HSS

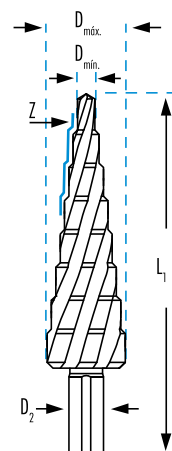
Ref. AV42BM7



ESCALÓN 10 mm



AV42BM702B AV42BM703B AV42BM704B

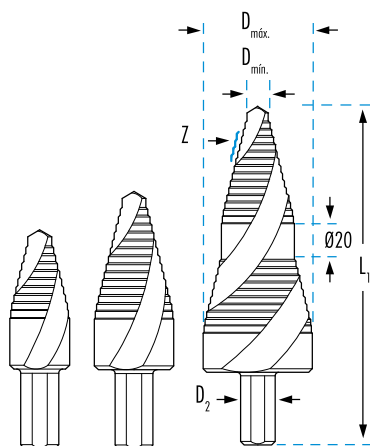


								AV42	
	D mín. mm	D máx. mm	D2 mm	L1 mm	Z	Ø Z mm menor-mayor		HSS €	TiN €
AV42BM702B	6,0	12,0	6,0	105	7	6-7-8-9-10-11-12		45,95	51,05
AV42BM703B	6,0	20,0	10,0	120	8	6-8-10-12-14-16-18-20		72,11	80,12
AV42BM704B	6,0	27,0	12,0	125	8	6-9-12-15-18-21-24-27		94,88	105,42

BROCA MICROESCALONADAS HSS



STEP CUT



ESCALÓN 2 mm



AV40BM37

AV40BM38

AV40BM36

AV40BM								
	D mín. mm	D máx. mm	D <sub>2</sub> mm	L1 mm	Z	Ø Z mm menor-mayor	HSS €	TiN €
AV40BM37B	6,0	15,0	9,5	55	11	6-7-8-9-10-11-12-13-14-14,5-15	27,75	36,42
AV40BM38B	6,0	20,0	9,5	65	16	6-7-8-9-10-11-12-13-14-15-16-17-18-19-19,5-20	41,49	57,02
AV40BM36B	6,0	30,0	9,5	93	27	6-7-8-9-10-11-12-13-14-15-16-17-18-19-19,5-20-21-22-23-24-25-26-27-28-29-29,5-30	102,31	147,33

MANGO HEXAGONAL 1/4"

AV41								
	D mín. mm	D máx. mm	Hexágono	L1 mm	Z	Ø Z mm menor-mayor	HSS €	TiN €
AV41BM2B	4,0	12,0	1/4"	72	9	4-5-6-7-8-9-10-11-12	46,17	68,17
AV41BM3B	4,0	20,0	1/4"	81	9	4-6-8-10-12-14-16-18-20	61,59	95,30
AV41BM4B	4,0	30,0	1/4"	105	14	4-6-8-10-12-14-16-18-20-22-24-26-28-30	101,51	151,72



Ref. AV41BM2B

SERIE CORTA Máximo 2 mm de espesor

AV41C								
	D mín. mm	D máx. mm	D <sub>2</sub> mm	L1 mm	Z	Ø Z mm menor-mayor	HSS €	TiN €
AV41CBM2B	4,0	12,0	6,0	48	9	4-5-6-7-8-9-10-11-12	50,94	68,37
AV41CBM3B	4,0	20,0	8,0	58	9	4-6-8-10-12-14-16-18-20	63,24	88,36
AV41CBM4B	4,0	30,0	10,0	72	14	4-6-8-10-12-14-16-18-20-22-24-26-28-30	103,10	158,74



Ref. AV41CBM3B



## BROCAS ESCALONADAS HSS CARACTERÍSTICAS ESPECIALES

HSS

## ATORNILLAMIENTOS MÉTRICOS DE CABLE

	DIN	D mín. mm	D máx. mm	D2 mm	L1 mm	Z	Ø Z mm menor-mayor	AV45	
								HSS €	TiN €
AV45BM0B	60423	5,3	30,5	10,0	79	9	5,3-7-9-10,5-14,5-18,5-23,5-27-30,5	180,94	233,33
AV45BM2B	60423	5,3	38,5	10,0	96	11	5,3-7-9-10,5-14,5-18,5-23,5-27-30,5-34,5-38,5	217,59	274,91



Ref. AV45BM2B

## ESCALONADA RECTA CON 3 CORTES

	D mín. mm	D máx. mm	D2 mm	L1 mm	Z	Ø Z mm menor-mayor	AV43	
							HSS €	TiN €
AV43BM1B	4,0	12,0	6,0	65	9	4-5-6-7-8-9-10-11-12	47,58	75,36
AV43BM2B	4,0	20,0	8,0	75	9	4-6-8-10-12-14-16-18-20	65,23	101,07
AV43BM3B	4,0	30,0	10,0	100	14	4-6-8-10-12-14-16-18-20-22-24-26-28-30	100,54	164,44



Ref. AV43BM3B

## BROCA ESCALONADA CON BROCA GUÍA INTERCAMBIABLE

	D mín. mm	D máx. mm	D2 mm	L1 mm	Z	Ø Z mm menor-mayor	AV4	
							HSS €	
AV4BM3040	30,0	40,0	13,0	76	11	30-31-32-33-34-35-36-37-38-39-40	165,83	
AV4BM4050	40,0	50,0	13,0	76	11	40-41-42-43-44-45-46-47-48-49-50	239,52	
AV4BM5060	50,0	60,0	13,0	76	11	50-51-52-53-54-55-56-57-58-59-60	304,05	



Ref. AV4BM3040

## BROCA GUÍA



	DESCRIPCIÓN	BAV4BM €
BAV4BM	10X35mm	10,73

## BROCAS AVELLANADORAS PARA TUBO Y CHAPA HSS Y HSSCO

HSS

HSSCo

Ref. AV30

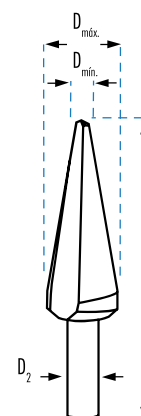
Ref. AVC30



118°



AV30						AVC30			
D mín. mm	D máx. mm	D2 mm	L1 mm		HSS €	TiN €		HSSCo €	TiN €
3,0	14,0	6,0	58	AV30BM0B	20,13	40,23	AVC30BM0B	37,26	48,67
3,0	22,5	8,0	85	AV30BM8B	55,65	100,85			
3,0	31,0	10,0	102	AV30BM5B	88,99	133,36			
5,0	25,4	10,0	87	AV30BM9B	63,28	120,89			
6,0	20,0	8,0	63	AV30BM1B	28,40	58,71	AVC30BM1B	49,40	75,03
16,0	30,0	10,0	79	AV30BM2B	54,93	97,15	AVC30BM2B	81,51	108,68
26,0	40,0	13,0	86	AV30BM3B	113,65	177,97	AVC30BM3B	164,73	228,88
36,0	50,0	13,0	89	AV30BM4	167,40	258,22			
40,0	61,0	13,0	98	AV30BM6	277,32	431,87			



\*Las referencias acabadas en B, se suministran en blíster.

## BROCAS AVELLANADORAS PARA CHAPA HSS CARACTERISTICAS ESPECIALES

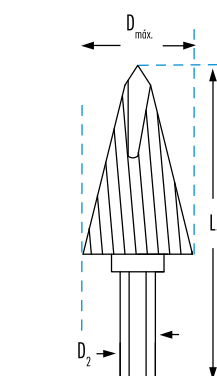
HSS

Ref. AG

Broca-avellanadora para cortar tubo y chapa de acero y aleaciones ligeras, materiales plásticos. Indicado hasta 5 mm de profundidad.

HSS

Ref. AV31



### FRESA PARA TUBO Y CHAPA

AG					
	D mín. mm	D2 mm	L1 mm	Nº dientes	HSS €
AG2500	25,0	8,0	72	20	28,42
AG3200	32,0	10,0	81	30	42,67
AG4500	45,0	10,0	94	36	70,48

### TOPE DE PROFUNDIDAD

AV31						
	D mín. mm	D máx. mm	D2 mm	L1 mm	HSS €	TiN €
AV31BM0B	3,0	7,8	6,0	48	32,26	48,82
AV31BM1B	3,0	10,2	6,0	52	42,36	66,41
AV31BM2B	3,0	11,8	6,0	56	47,14	83,31