Flexifer

by SANCHES BLANES

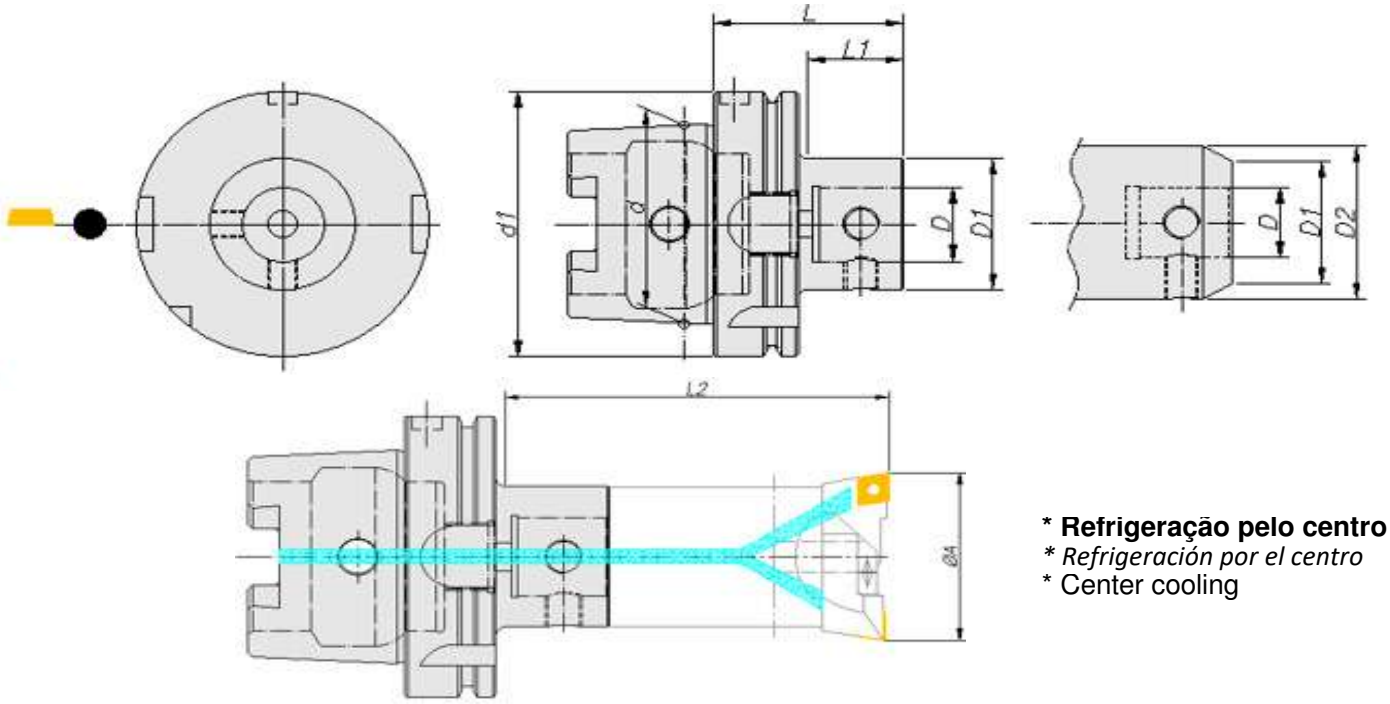


SISTEMA MODULAR DE FERRAMENTAS

PORTAHERRAMIENTAS MODULARES

MODULAR TOOL HOLDERS

MULTI-FIX



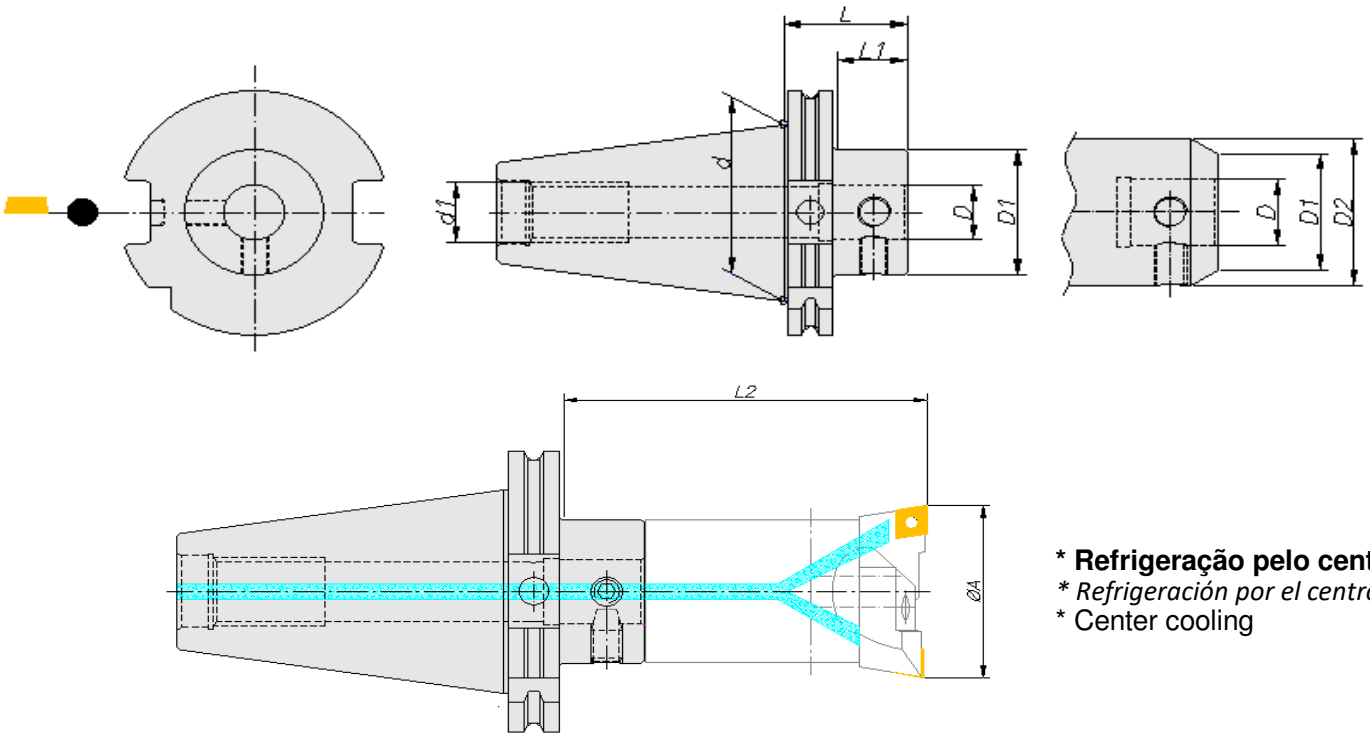
*** Refrigeração pelo centro**
** Refrigeración por el centro*
* Center cooling

CONE BÁSICO HSK-A/C - DIN 69893

CONO BÁSICO HSK-A/C - DIN 69893

HSK-A/C BASIC SHANK - DIN 6989

CÓDIGO CODE	**REF. FLEXIFER** FLEXIFER REF.	**ØA**	**HSK-A/C**	**d**	**d1**	**D**	**D1**	**D2**	**L**	**L1**	**L2**	**PESO** WEIGTH **(Kg)**
40.050.60.525	**50.810.025.14**	29 - 37	50	38	50	**14**	**25**	-	**44**	16	72	0,5
40.050.60.632	**50.810.032.14**	36 - 44						32				0,6
40.050.60.532	**50.810.032.18**	43 - 54				**18**	**32**	40	**64**	36	102	0,7
40.050.60.540	**50.810.040.22**	53 - 66				**22**	**40**	50	**65**	37	112	0,8
40.050.60.550	**50.810.050.28**	65 - 83				**28**	**50**	-				0,9
40.063.60.525	**63.810.025.14**	29 - 37	63	48	63	**14**	**25**	-	**44**	16	72	0,7
40.063.60.632	**63.810.032.14**	36 - 44						32				0,8
40.063.60.532	**63.810.032.18**	43 - 54				**18**	**32**	40	**64**	36	102	0,9
40.063.60.540	**63.810.040.22**	53 - 66				**22**	**40**	50	**65**	37	112	1,0
40.063.60.550	**63.810.050.28**	65 - 83				**28**	**50**	-				1,1
40.063.60.563	**63.810.063.36**	82-103				**36**	**63**	-	**80**	52	142	1,2
40.063.60.580	**63.810.080.36**	100-130				**36**	**80**	-				1,4
40.080.60.525	**80.810.025.14**	29 - 37	80	60	80	**14**	**25**	-	**49**	21	77	1,0
40.080.60.632	**80.810.032.14**	36 - 44						32				1,1
40.080.60.532	**80.810.032.18**	43 - 54				**18**	**32**	40	**64**	36	102	1,2
40.080.60.540	**80.810.040.22**	53 - 66				**22**	**40**	50	**65**	37	112	1,3
40.080.60.550	**80.810.050.28**	65 - 83				**28**	**50**	-				1,4
40.080.60.563	**80.810.063.36**	82-103				**36**	**63**	-	**80**	52	142	1,5
40.080.60.580	**80.810.080.36**	100-205				**36**	**80**	-				1,7
40.100.60.525	**10.810.025.14**	29 - 37	100	75	100	**14**	**25**	-	**49**	18	74	1,5
40.100.60.632	**10.810.032.14**	36 - 44						32				1,5
40.100.60.532	**10.810.032.18**	43 - 54				**18**	**32**	40	**64**	33	99	1,6
40.100.60.540	**10.810.040.22**	53 - 66				**22**	**40**	50	**65**	34	109	1,7
40.100.60.550	**10.810.050.28**	65 - 83				**28**	**50**	-				2,5
40.100.60.650	**10.810.150.28**							-	**180**	149	224	4,0
40.100.60.560	**10.810.250.28**							60				5,0
40.100.60.563	**10.810.063.36**	82-103				**36**	**63**	-	**80**	49	139	2,6
40.100.60.663	**10.810.163.36**							-	**205**	174	264	6,6
40.100.60.578	**10.810.263.36**							78				7,8
40.100.60.580	**10.810.080.36**	100-205				**36**	**80**	-	**80**	49	139	2,7
40.100.60.680	**10.810.180.36**							-	**205**	174	264	10,4
40.100.60.590	**10.810.280.36**							90				12,6

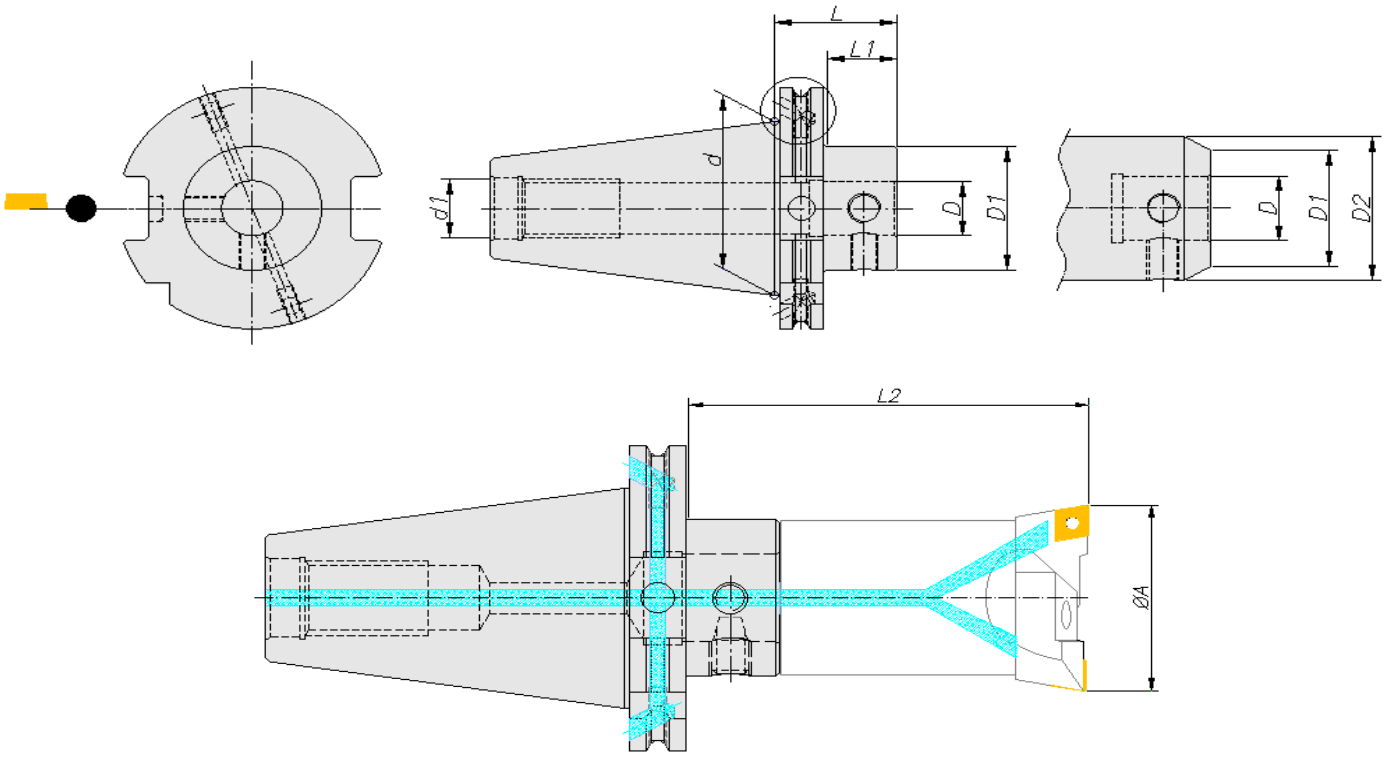


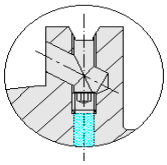
*** Refrigeração pelo centro**
** Refrigeración por el centro*
* Center cooling

*** Fornecido com furo para chip**
** Suministrado con orificio de viruta*
* Supplied with chip hole

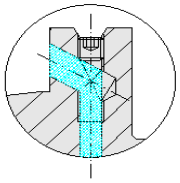
CONE BÁSICO - DIN 69871 - AD
CONO BÁSICO - DIN 69871 - AD
BASIC SHANK - DIN 69871 - AD

CÓDIGO CODE	REF. FLEXIFER FLEXIFER REF.	ØA	ISO	d	d1	D	D1	D2	L	L1	L2	PESO WEIGTH (Kg)
03.60.050.28	**30.010.050.28**	65 - 83	30	31,75	M12	**28**	**50**	-	**58**	37	112	0,5
06.60.025.14	**40.010.025.14**	29 - 37	40	44,45	M16	**14**	**25**	-	**46**	25	81	1,1
06.60.032.14	**40.010.032.14**	36 - 44						32				1,2
06.60.032.18	**40.010.032.18**	43 - 54				**18**	**32**	40			91	1,4
06.60.040.22	**40.010.022.40**	53 - 66				**22**	**40**	50			100	1,4
06.60.050.28	**40.010.050.28**	65 - 83				**28**	**50**	-				1,5
06.60.063.36	**40.010.063.36**	82-103				**36**	**63**	-	**66**	45	135	1,7
11.60.025.14	**50.010.025.14**	29 - 37	50	69,85	M24	**14**	**25**	-	**46**	25	81	2,5
11.60.032.14	**50.010.032.14**	36 - 44						32				2,6
11.60.032.18	**50.010.032.18**	43 - 54				**18**	**32**	40			91	2,7
11.60.040.22	**50.010.040.22**	53 - 66				**22**	**40**	50			100	2,8
11.60.050.28	**50.010.050.28**	65 - 83				**28**	**50**	-				2,9
11.60.250.28	**50.010.150.28**							-	**116**	95	170	3,9
11.60.350.28	**50.010.250.28**							-	**186**	165	240	4,9
11.60.060.28	**50.010.350.28**							60				6,0
11.60.063.36	**50.010.063.36**	82-103				**36**	**63**	-	**56**	35	125	3,5
11.60.263.36	**50.010.163.36**							-	**136**	115	205	4,4
11.60.363.36	**50.010.263.36**							-	**206**	185	275	6,9
11.60.078.36	**50.010.363.36**							78				8,9
11.60.080.36	**50.010.080.36**	100-205				**36**	**80**	-	**56**	35	125	4,0
11.60.280.36	**50.010.180.36**							-	**136**	115	205	6,8
11.60.380.36	**50.010.280.36**							-	**256**	235	325	11,5
11.60.090.36	**50.010.380.36**							90				13,6





*** Refrigeração pelo centro**
** Refrigeración por el centro*
* Center cooling

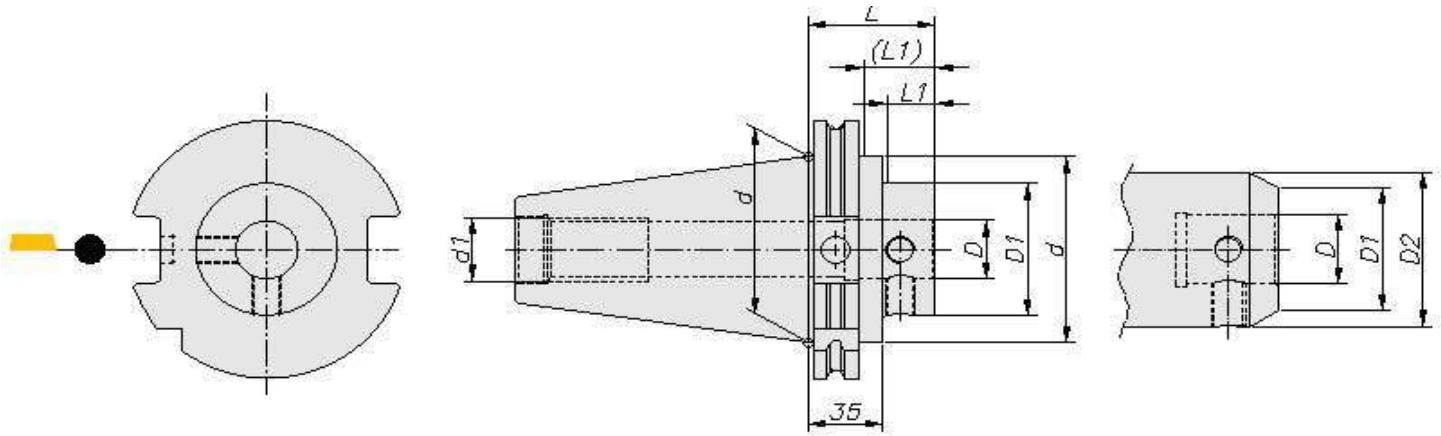


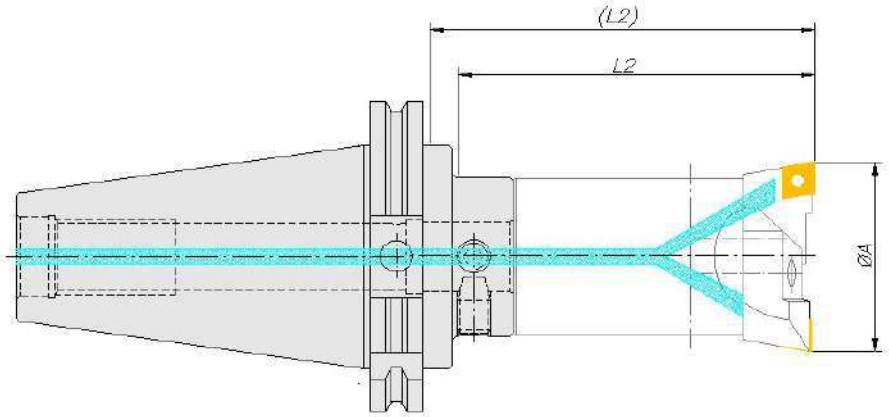
*** Refrigeração pelo flange**
** Refrigeración por el brida*
* Flange cooling

*** Fornecido com furo para chip**
** Suministrado con orificio de viruta*
* Supplied with chip hole

CONE BÁSICO - DIN 69871 - AD + B (HÍBRIDO)
CONO BÁSICO - DIN 69871 - AD + B (HÍBRIDO)
BASIC SHANK - DIN 69871 - AD + B (HYBRID)

CÓDIGO CODE	**REF. FLEXIFER** FLEXIFER REF.	**ØA**	**ISO**	**d**	**d1**	**D**	**D1**	**D2**	**L**	**L1**	**L2**	**PESO** WEIGTH **(Kg)**
06.60.125.14	**40.032.025.14**	29 - 37	40	44,45	M16	**14**	**25**	-	**46**	25	81	1,1
06.60.132.14	**40.032.032.14**	36 - 44						32				1,2
06.60.132.18	**40.032.032.18**	43 - 54				**18**	**32**	40			91	1,4
06.60.140.22	**40.032.040.22**	53 - 66				**22**	**40**	50			100	1,4
06.60.150.28	**40.032.050.28**	65 - 83				**28**	**50**	-				1,5
06.60.163.36	**40.032.063.36**	82-103				**36**	**63**	-	**66**	45	135	1,7
11.60.125.14	**50.032.025.14**	29 - 37	50	69,85	M24	**14**	**25**	-	**46**	25	81	2,5
11.60.132.14	**50.032.032.14**	36 - 44						32				2,6
11.60.132.18	**50.032.032.18**	43 - 54				**18**	**32**	40			91	2,7
11.60.140.22	**50.032.040.22**	53 - 66				**22**	**40**	50	**56**	35	110	2,8
11.60.150.28	**50.032.050.28**	65 - 83				**28**	**50**	-				2,9
11.60.163.36	**50.032.063.36**	82-103				**36**	**63**	-			125	3,5
11.60.180.36	**50.032.080.36**	100-205				**36**	**80**	-				4,0



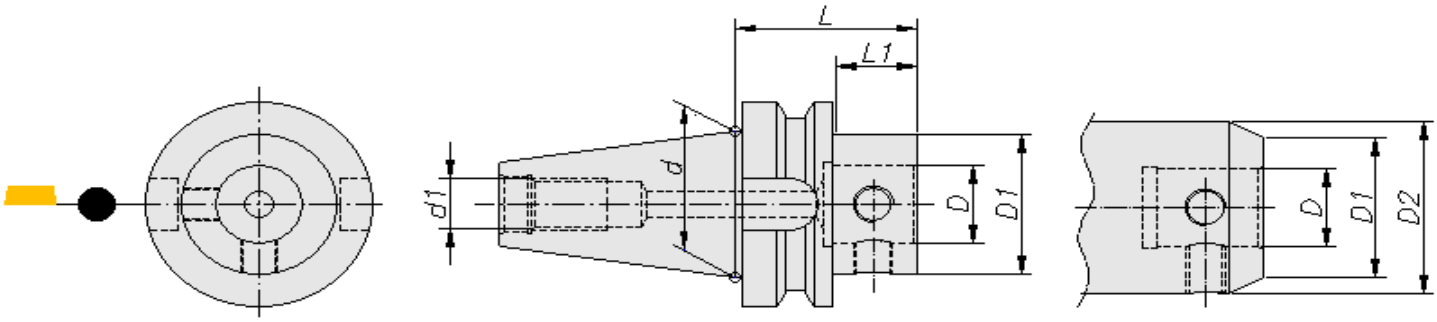


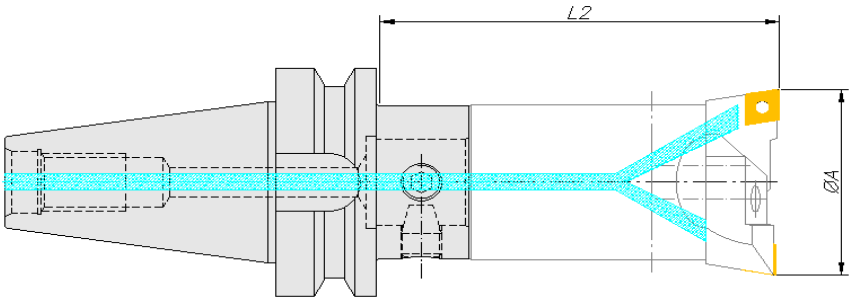
*** Refrigeração pelo centro**
** Refrigeración por el centro*
* Center cooling

*** Para cone DIN 69871-AD standard veja página 8**
* Para cono DIN 69871-AD estándar, consulte la página 8
* For standard shank DIN 69871-AD see page 8

CONE BÁSICO - DIN 69871 - AD / CAT (UNIFICADO)
CONO BÁSICO - DIN 69871 - AD / CAT (UNIFICADO)
BASIC SHANK - DIN 69871 - AD / CAT (UNIFIED)

CÓDIGO CODE	REF. FLEXIFER FLEXIFER REF.	ØA	ISO	d	d1	D	D1	D2	L	L1 (L1)	L2 (L2)	PESO WEIGTH (Kg)
24.60.025.14	**40.033.025.14**	29 - 37	40	44,45	M16	**14**	**25**	-	**62**	25	81	1,3
24.60.032.14	**40.033.032.14**	36 - 44						32				1,4
24.60.032.18	**40.033.032.18**	43 - 54				**18**	**32**	40			91	1,6
24.60.040.22	**40.033.040.22**	53 - 66				**22**	**40**	50		(41)	(116)	1,6
24.60.050.28	**40.033.050.28**	65 - 83				**28**	**50**	-				1,7
24.60.063.36	**40.033.063.36**	82-103				**36**	**63**	-	**82**	(61)	(151)	1,9
25.60.025.14	**50.033.025.14**	29 - 37	50	69,85	M24	**14**	**25**	-	**62**	25	81	2,5
25.60.032.14	**50.033.032.14**	36 - 44						32				2,6
25.60.032.18	**50.033.032.18**	43 - 54				**18**	**32**	40			91	2,7
25.60.040.22	**50.033.040.22**	53 - 66				**22**	**40**	50	**62**	25	100	2,8
25.60.050.28	**50.033.050.28**	65 - 83				**28**	**50**	-				2,9
25.60.036.36	**50.033.063.36**	82-103				**36**	**63**	-	**72**	(51)	(141)	3,5
25.60.080.36	**50.033.080.36**	100-205				**36**	**80**	-				4,0

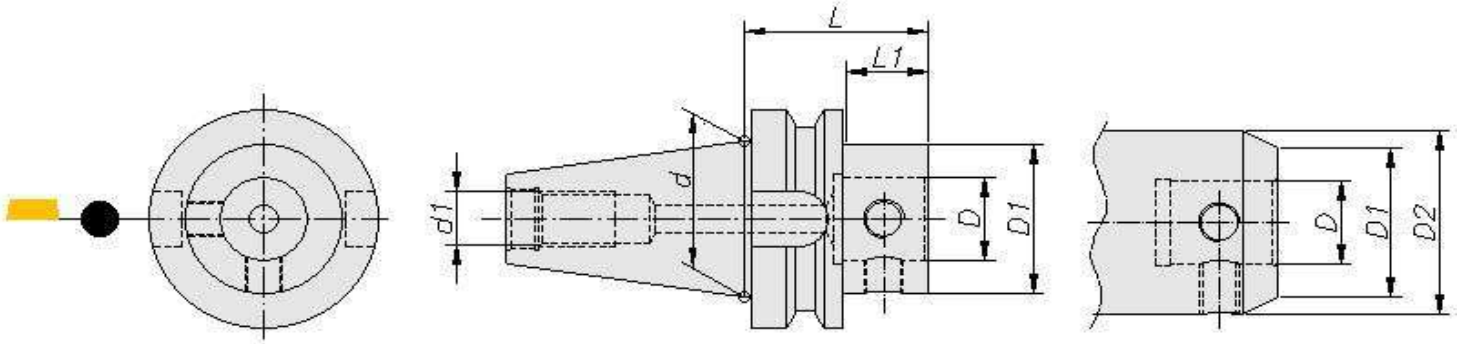


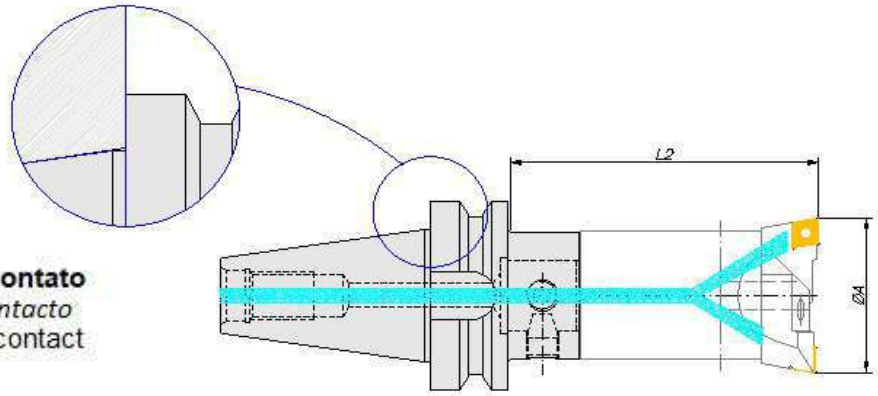


*** Refrigeração pelo centro**
** Refrigeración por el centro*
* Center cooling

CONE BÁSICO - MAS 403 - BT
CONO BÁSICO - MAS 403 - BT
BASIC SHANK - MAS 403 - BT

CÓDIGO CODE	REF. FLEXIFER FLEXIFER REF.	ØA	BT	d	d1	D	D1	D2	L	L1	L2	PESO WEIGTH (Kg)
33.60.025.14	30.017.025.14	29 - 37	30	31,75	M12	14	25	-	39	15	71	1,1
33.60.032.14	30.017.032.14	36 - 44						32				1,2
33.60.032.18	30.017.032.18	43 - 54				18	32	40	49	25	91	1,4
33.60.040.22	30.017.040.22	53 - 66				22	40	50			100	1,4
33.60.050.28	30.017.050.28	65 - 83				28	50	-				0,5
34.60.025.14	40.017.025.14	29 - 37	40	44,45	M16	14	25	-	54	25	81	1,1
34.60.032.14	40.017.032.14	36 - 44						32				1,2
34.60.032.18	40.017.032.18	43 - 54				18	32	40			91	1,4
34.60.040.22	40.017.040.22	53 - 66				22	40	50			100	1,4
34.60.050.28	40.017.050.28	65 - 83				28	50	-				1,5
34.60.063.36	40.017.063.36	82-103				36	63	-	66	37	127	1,7
35.60.025.14	50.017.025.14	29 - 37	50	69,85	M24	14	25	-	65	25	81	3,1
35.60.032.14	50.017.032.14	36 - 44						32				3,2
35.60.032.18	50.017.032.18	43 - 54				18	32	40			91	3,5
35.60.040.22	50.017.040.22	53 - 66				22	40	50			100	3,6
35.60.050.28	50.017.050.28	65 - 83				28	50	-				3,8
35.60.150.28	50.017.150.28							-	135	95	170	4,9
35.60.250.28	50.017.250.28							-	205	165	240	5,9
35.60.060.28	50.017.350.28							60				7,0
35.60.063.36	50.017.063.36	82-103				36	63	-	75	35	125	4,2
35.60.163.36	50.017.163.36							-	155	115	205	5,3
35.60.263.36	50.017.263.36							-	225	185	275	7,8
35.60.078.36	50.017.363.36							78				9,9
35.60.080.36	50.017.080.36	100-205				36	80	-	75	35	125	4,7
35.60.180.36	50.017.180.36							-	155	115	205	8,0
35.60.280.36	50.017.280.36							-	275	235	325	12,7
35.60.090.36	50.017.380.36							90				14,8





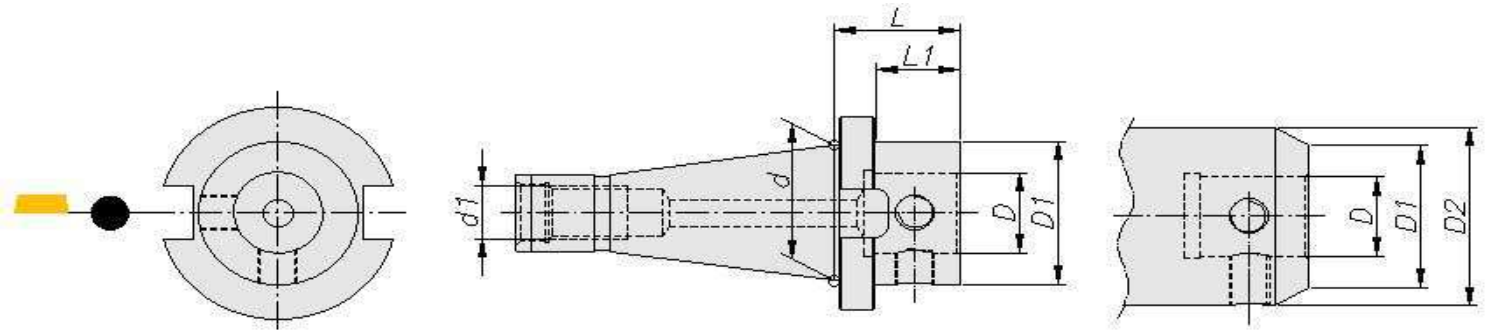
BBT

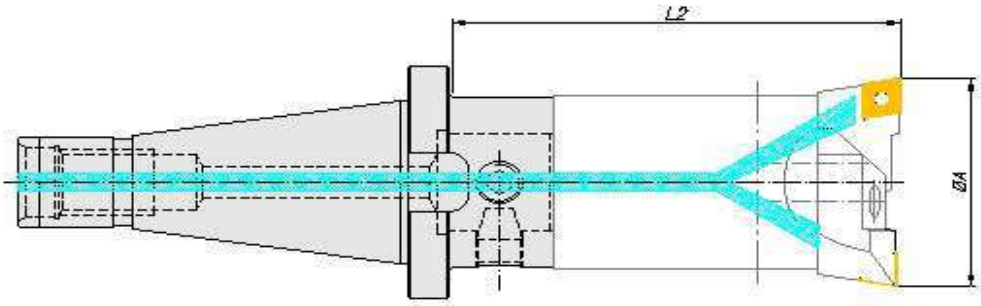
*** Duplo contato**
** Doble contacto*
* Double contact

*** Refrigeração pelo centro**
** Refrigeración por el centro*
* Center cooling

CONE BÁSICO - MAS 403 - BBT
CONO BÁSICO - MAS 403 - BBT
BASIC SHANK - MAS 403 - BBT

CÓDIGO CODE	**REF. FLEXIFER** FLEXIFER REF.	**ØA**	**BBT**	**d**	**d1**	**D**	**D1**	**D2**	**L**	**L1**	**L2**	**PESO** WEIGTH **(Kg)**
33.60.025.14 BBT	**30.017.025.14 BBT**	29 - 37	30	31,75	M12	**14**	**25**	-	**39**	15	71	1,1
33.60.032.14 BBT	**30.017.032.14 BBT**	36 - 44						32				1,2
33.60.032.18 BBT	**30.017.032.18 BBT**	43 - 54				**18**	**32**	40	**49**	25	91	1,4
33.60.040.22 BBT	**30.017.040.22 BBT**	53 - 66				**22**	**40**	50			100	1,4
33.60.050.28 BBT	**30.017.050.28 BBT**	65 - 83				**28**	**50**	-				0,5
34.60.025.14 BBT	**40.017.025.14 BBT**	29 - 37	40	44,45	M16	**14**	**25**	-	**54**	25	81	1,1
34.60.032.14 BBT	**40.017.032.14 BBT**	36 - 44						32				1,2
34.60.032.18 BBT	**40.017.032.18 BBT**	43 - 54				**18**	**32**	40			91	1,4
34.60.040.22 BBT	**40.017.040.22 BBT**	53 - 66				**22**	**40**	50			100	1,4
34.60.050.28 BBT	**40.017.050.28 BBT**	65 - 83				**28**	**50**	-				1,5
34.60.063.36 BBT	**40.017.063.36 BBT**	82-103				**36**	**63**	-	**66**	37	127	1,7
35.60.025.14 BBT	**50.017.025.14 BBT**	29 - 37	50	69,85	M24	**14**	**25**	-	**65**	25	81	3,1
35.60.032.14 BBT	**50.017.032.14 BBT**	36 - 44						32				3,2
35.60.032.18 BBT	**50.017.032.18 BBT**	43 - 54				**18**	**32**	40			91	3,5
35.60.040.22 BBT	**50.017.040.22 BBT**	53 - 66				**22**	**40**	50			100	3,6
35.60.050.28 BBT	**50.017.050.28 BBT**	65 - 83				**28**	**50**	-				3,8
35.60.150.28 BBT	**50.017.150.28 BBT**							-	**135**	95	170	4,9
35.60.250.28 BBT	**50.017.250.28 BBT**							-	**205**	165	240	5,9
35.60.060.28 BBT	**50.017.350.28 BBT**							60				7,0
35.60.063.36 BBT	**50.017.063.36 BBT**	82-103				**36**	**63**	-	**75**	35	125	4,2
35.60.163.36 BBT	**50.017.163.36 BBT**							-	**155**	115	205	5,3
35.60.263.36 BBT	**50.017.263.36 BBT**							-	**225**	185	275	7,8
35.60.078.36 BBT	**50.017.363.36 BBT**							78				9,9
35.60.080.36 BBT	**50.017.080.36 BBT**	100-205				**36**	**80**	-	**75**	35	125	4,7
35.60.180.36 BBT	**50.017.180.36 BBT**							-	**155**	115	205	8,0
35.60.280.36 BBT	**50.017.280.36 BBT**							-	**275**	235	325	12,7
35.60.090.36 BBT	**50.017.380.36 BBT**							90				14,8

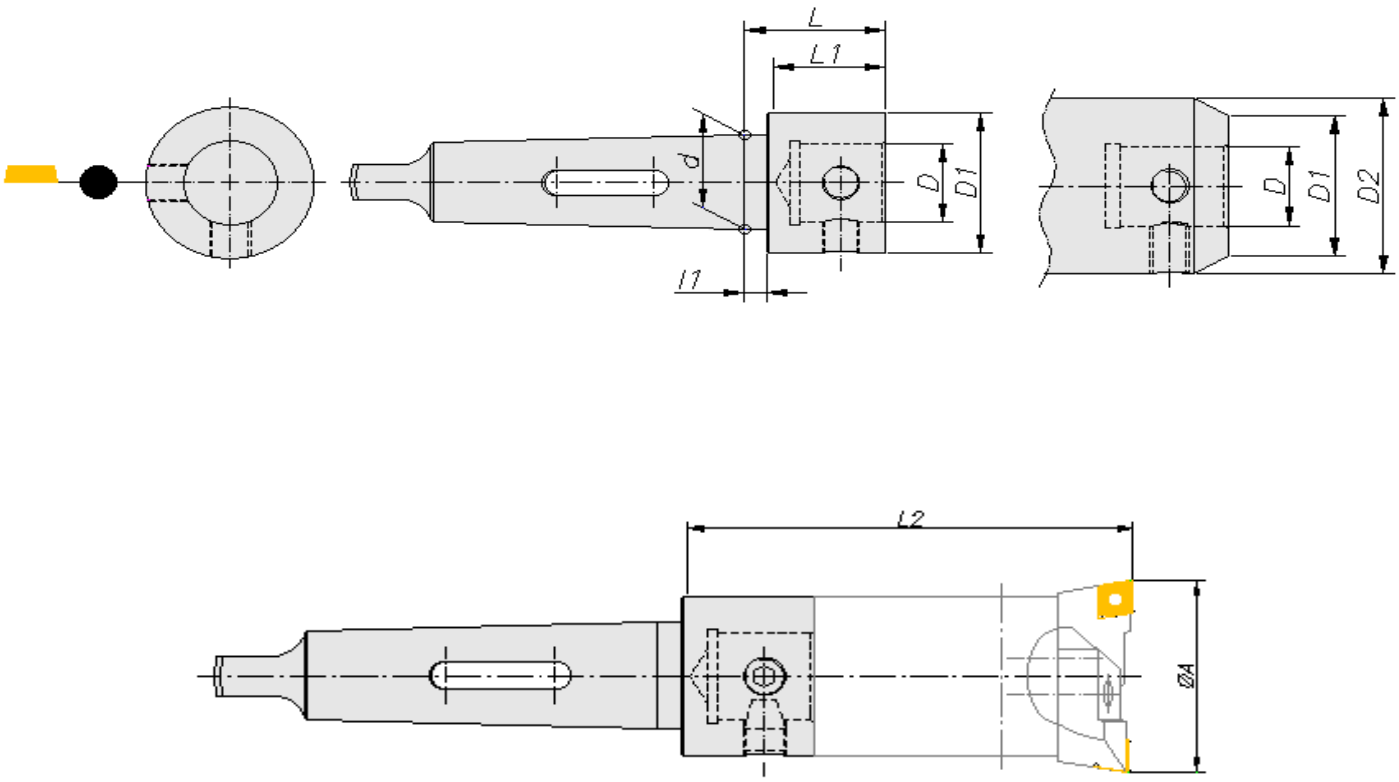




*** Refrigeração pelo centro**
** Refrigeración por el centro*
* Center cooling

CONE BÁSICO - DIN 2080
CONO BÁSICO - DIN 2080
BASIC SHANK - DIN 2080

CÓDIGO CODE	**REF. FLEXIFER** FLEXIFER REF.	**ØA**	**ISO**	**d**	**d1**	**D**	**D1**	**D2**	**L**	**L1**	**L2**	**PESO** WEIGTH **(Kg)**
43.60.025.14	**30.610.025.14**	29 - 37	30	31,75	M12	**14**	**25**	-	**32**	20	76	0,4
43.60.032.14	**30.610.032.14**	36 - 44						32				0,4
43.60.032.18	**30.610.032.18**	43 - 54				**18**	**32**	40	**38**	26	92	0,5
43.60.040.22	**30.610.040.22**	53 - 66				**22**	**40**	50			101	0,6
43.60.050.28	**30.610.050.28**	65 - 83				**28**	**50**	-				0,7
44.60.025.14	**40.610.025.14**	29 - 37	40	44,45	M16	**14**	**25**	-	**32**	18	74	1,0
44.60.032.14	**40.610.032.14**	36 - 44						32				1
44.60.032.18	**40.610.032.18**	43 - 54				**18**	**32**	40	**38**	24	90	1,1
44.60.040.22	**40.610.040.22**	53 - 66				**22**	**40**	50			99	1,2
44.60.050.28	**40.610.050.28**	65 - 83				**28**	**50**	-				1,3
44.60.063.36	**40.610.063.36**	82-103				**36**	**63**	-	**48**	34	124	1,5
45.60.025.14	**50.610.025.14**	29 - 37	50	69,85	M24	**14**	**25**	-	**32**	15	71	1,5
45.60.032.14	**50.610.032.14**	36 - 44						32				1,6
45.60.032.18	**50.610.032.18**	43 - 54				**18**	**32**	40	**38**	21	87	2,0
45.60.040.22	**50.610.040.22**	53 - 66				**22**	**40**	50			96	2,5
45.60.050.28	**50.610.050.28**	65 - 83				**28**	**50**	-	**42**	25	100	3,0
45.60.063.36	**50.610.063.36**	82-103				**36**	**63**	-	**52**	35	125	3,5
45.60.080.36	**50.610.080.36**	100-205				**36**	**80**	-				4,0

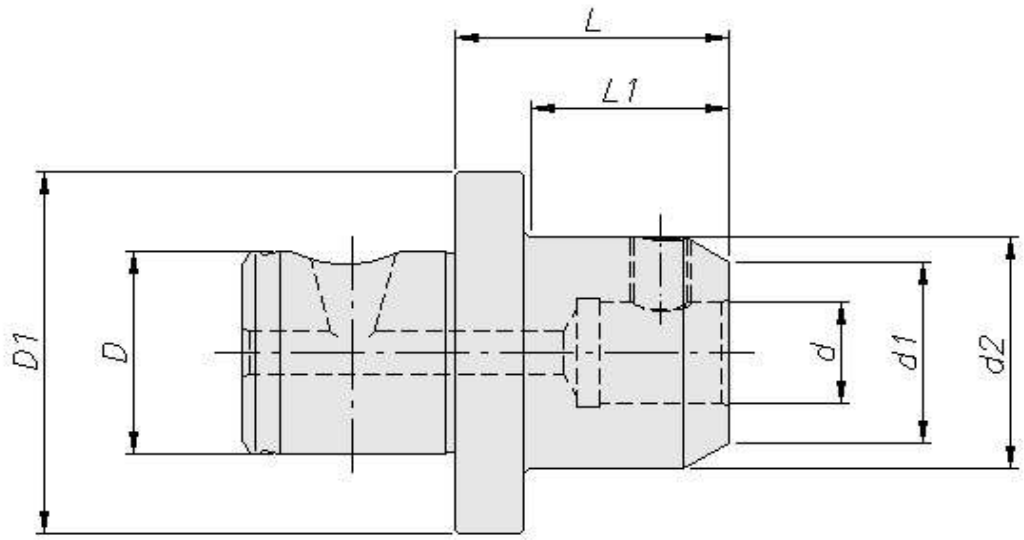


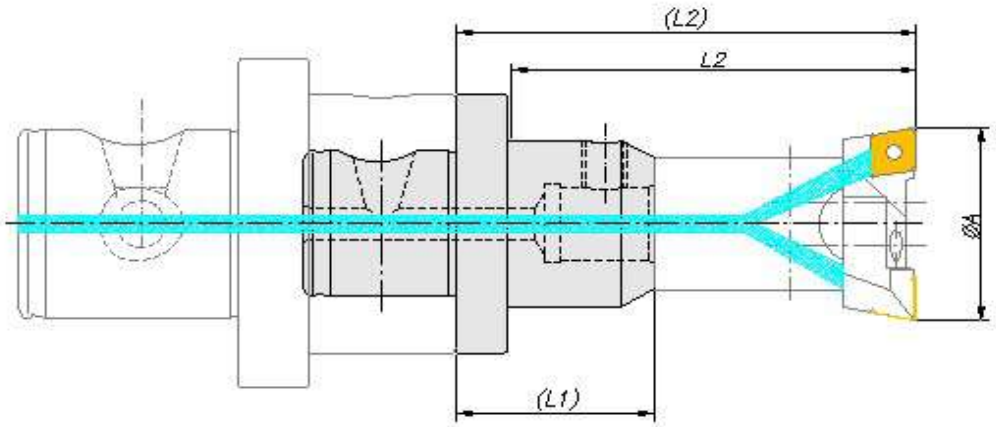
CONE BÁSICO - DIN 228-B

CONO BÁSICO - DIN 228-B

BASIC SHANK - DIN 228-B

CÓDIGO CODE	**REF. FLEXIFER** FLEXIFER REF.	**ØA**	**CONE MORSE**	**d**	**l1**	**D**	**D1**	**D2**	**L**	**L1**	**L2**	**PESO** WEIGTH **(Kg)**
52.60.025.04	**04.206.025.14**	29 - 37	4	31,267	6,5	**14**	**25**	-	**43**	36	92	0,5
52.60.132.04	**04.206.032.14**	36 - 44						32				0,6
52.60.032.04	**04.206.032.18**	43 - 54				**18**	**32**	40			102	0,7
52.60.040.04	**04.206.040.22**	53 - 66				**22**	**40**	50			111	0,9
52.60.050.04	**04.206.050.28**	65 - 83				**28**	**50**	-				1,1
52.60.063.04	**04.206.063.36**	82-103				**36**	**63**	-	**53**	46	136	1,5
52.60.025.05	**05.206.025.14**	29 - 37	5	44,399	6,5	**14**	**25**	-	**33**	26	82	1,0
52.60.132.05	**05.206.032.14**	36 - 44						32				1,2
52.60.032.05	**05.206.032.18**	43 - 54				**18**	**32**	40			92	1,3
52.60.040.05	**05.206.040.22**	53 - 66				**22**	**40**	50			101	1,5
52.60.050.05	**05.206.050.28**	65 - 83				**28**	**50**	-				1,8
52.60.063.05	**05.206.063.36**	82-103				**36**	**63**	-	**53**	46	136	2,2
52.60.080.05	**05.206.080.36**	100-205				**36**	**80**	-				2,7
52.60.025.06	**06.206.025.14**	29 - 37	6	63,348	8	**14**	**25**	-	**34**	26	82	2,0
52.60.132.06	**06.206.032.14**	36 - 44						32				2,2
52.60.032.06	**06.206.032.18**	43 - 54				**18**	**32**	40			92	2,3
52.60.040.06	**06.206.040.22**	53 - 66				**22**	**40**	50			101	2,5
52.60.050.06	**06.206.050.28**	65 - 83				**28**	**50**	-				2,7
52.60.063.06	**06.206.063.36**	82-103				**36**	**63**	-	**44**	36	126	4,1
52.60.080.06	**06.206.080.36**	100-205				**36**	**80**	-				4,6



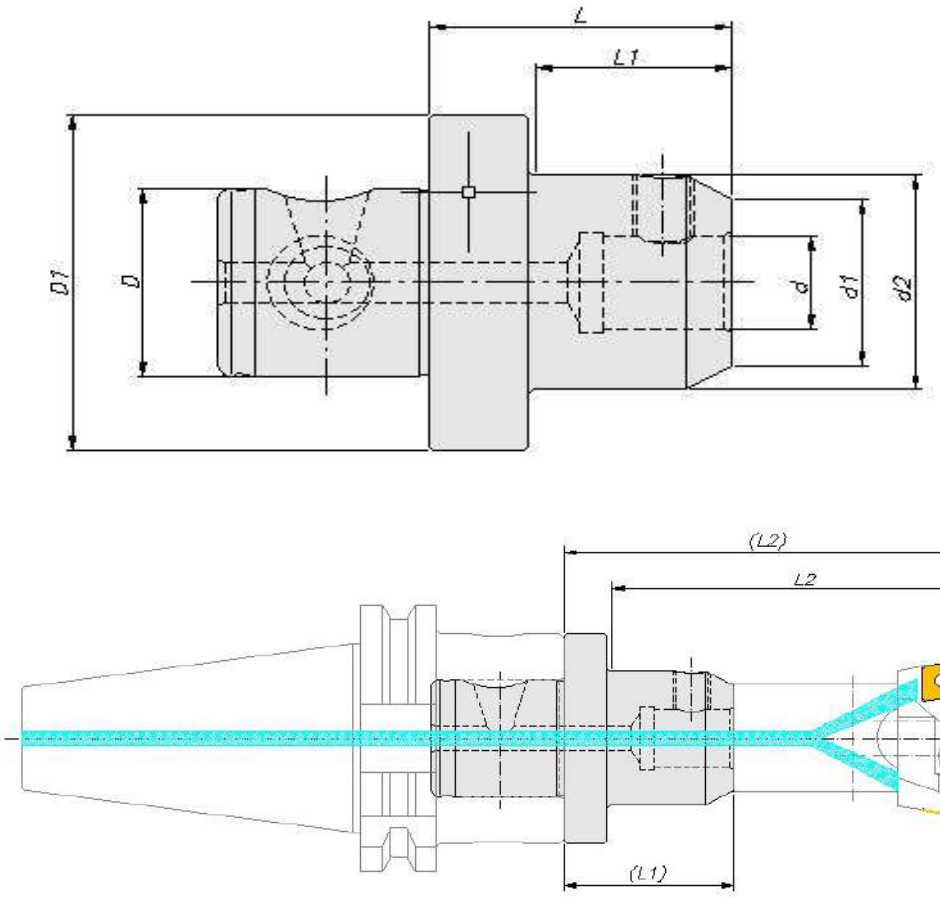


REDUÇÃO (CONEXÕES BASE 14-25 , 18-32 E 22-40)

REDUCTOR (CONEXIONES BASE 14-25, 18-32 Y 22-40)

REDUCTION (BASE CONNECTIONS 14-25, 18-32 AND 22-40)

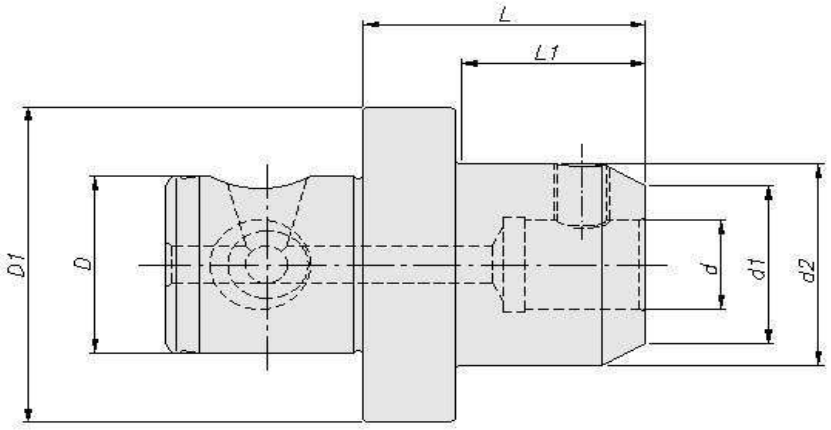
CÓDIGO CODE	**REF. FLEXIFER** FLEXIFER REF.	**ØA**	**D**	**D1**	**d**	**d1**	**d2**	**L**	**L1 (L1)**	**L2 (L2)**	**PESO** WEIGTH **(Kg)**
54.05.025.20	**RFA-001**	20 - 24	**14**	**25**	11	19,5	-	**30**	19	59	0,2
54.05.025.22	**RFA-002**	24 - 29			11	22	-				0,2
54.05.032.22	**REA-001**	20 - 24 24 - 29	**18**	**32**	11	22	-	**12**	1	41	0,2
54.05.032.25	**REB-001**	29 - 37 36 - 44			14	25	-	**30**	19 (30)	75 (86)	0,4
54.05.040.22	**RDA-001**	20 - 24 24 - 29	**22**	**40**	11	22	-	**12**	1	41	0,3
54.05.040.25	**RDB-001**	29 - 37 36 - 44			14	25	-	**30**	19	75	0,4
54.05.040.32	**RDC-001**	43 - 54			18	32	40	**30**	(30)	(96)	0,5

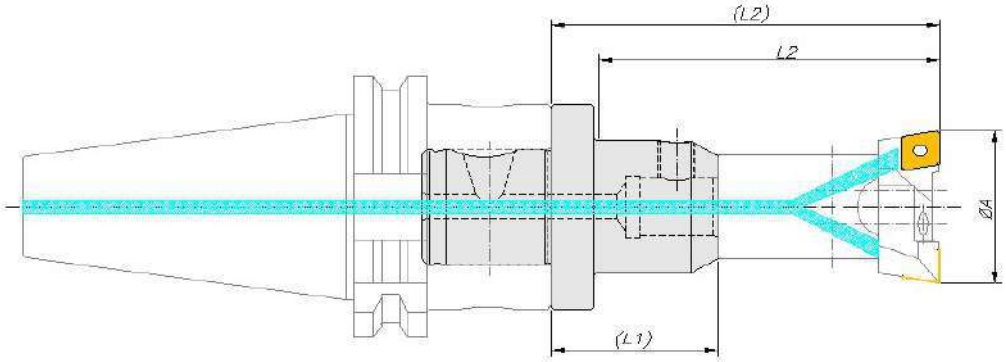


*** VERSAO REFORÇADA**
** VERSION MEJORADA*
* ENHANCED VERSION

REDUÇÃO (CONEXÃO BASE 28-50)
REDUCTOR (CONEXION BASE 28-50)
REDUCTION (BASE CONNECTION 28-50)

CÓDIGO CODE	**REF. FLEXIFER** FLEXIFER REF.	**ØA**	**D**	**D1**	**d**	**d1**	**d2**	**L**	**L1 (L1)**	**L2 (L2)**	**PESO** WEIGTH **(Kg)**
54.05.150.20	**RCA-001**	20 - 24	**28**	**50**	11	19,5	19,5	**54**	40	80	0,6
54.05.050.22	**RCA-002**				11	22	22	**14**	-	40	0,5
54.05.150.22	**RCA-003**	24 - 29			11	22	22	**54**	40	80	0,6
54.05.050.22	**RCA-002**							**14**	-	40	0,5
54.05.050.25	**RCB-001**	29 - 37			14	25	25	**14**	-	56	0,3
54.05.150.25	**RCB-002**							**59**	44	100	0,4
54.05.050.25	**RCB-001**	36 - 44			14	25	25	**14**	-	56	0,3
54.05.650.25	**RCB-003**						32	**59**	44	100	0,7
54.05.750.25	**RCB-004**							**119**	104	160	0,9
54.05.850.25	**RCB-005***	38 - 44					36	**119**	104	160	1,1
54.05.050.32	**RCC-001**	43 - 54			18	32	40	**49**	34	100	1,0
54.05.150.32	**RCC-002**							**109**	94	160	1,1
54.05.450.32	**RCC-003***	48 - 54					46	**109**	94	160	1,4
54.05.050.40	**RCD-001**	53 - 66			22	40	50	**40**	(40)	(115)	1,2
54.05.150.40	**RCD-002**							**100**	(100)	(175)	1,4

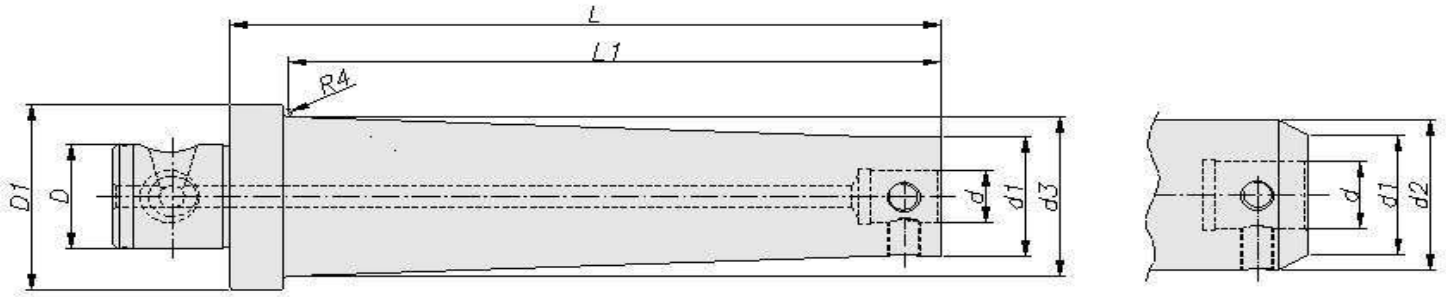


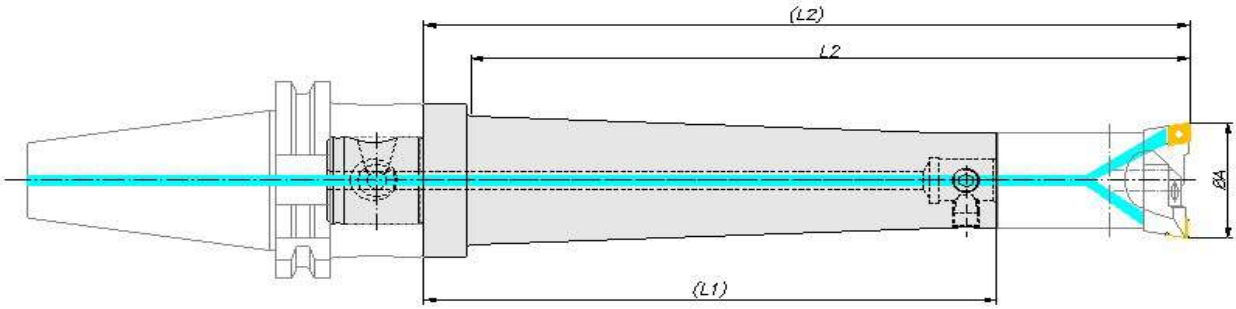


*** VERSAO REFORÇADA**
** VERSION MEJORADA*
* ENHANCED VERSION

REDUÇÃO (CONEXÕES BASE 36-63 E 36-80)
REDUCTOR (CONEXIONES BASE 36-63 Y 36-80)
REDUCTION (BASE CONNECTIONS 36-63 AND 36-80)

CÓDIGO CODE	REF. FLEXIFER FLEXIFER REF.	ØA	D	D1	d	d1	d2	L	L1 (L1)	L2 (L2)	PESO WEIGTH (Kg)
54.05.163.20	**RAA-001**	20 - 24			11	19,5	19,5	**54**	40	80	0,6
54.05.063.20	**RAA-002**				11	22	22	**14**	-	40	0,5
54.05.263.22	**RAA-003**	24 - 29			11	22	22	**54**	40	80	0,6
54.05.063.20	**RAA-002**							**14**	-	40	0,5
54.05.063.25	**RAB-001**	29 - 37			14	25	25	**14**	-	56	0,5
54.05.163.25	**RAB-002**							**59**	44	100	0,7
54.05.063.25	**RAB-001**	36 - 44			14	25	25	**14**	-	56	0,5
54.05.463.25	**RAB-003**						32	**59**	44	100	0,9
54.05.263.25	**RAB-004**							**119**	104	160	1,2
54.05.363.25	**RAB-005***	38 - 44	**36**	**63**			36	**119**	104	160	1,7
54.05.063.32	**RAC-001**	43 - 54			18	32	40	**49**	34	100	0,8
54.05.163.32	**RAC-002**							**109**	94	160	1,4
54.05.263.32	**RAC-003***	48 - 54					46	**109**	94	160	1,7
54.05.063.40	**RAD-001**	53 - 66			22	40	50	**40**	25	100	0,9
54.05.163.40	**RAD-002**							**100**	85	160	1,8
54.05.263.40	**RAD-003**							**150**	135	210	2,6
54.05.263.50	**RAE-001**	65 - 83			28	50	63	**40**	(40)	(115)	1,0
54.05.063.50	**RAE-002**						50				0,9
54.05.363.50	**RAE-003**						63	**100**	(100)	(175)	2,4
54.05.163.50	**RAE-004**						50				2,3
54.05.080.63	**RBA-001**	82 - 205	**36**	**80**	36	63	80	**50**	(50)	(140)	1,4



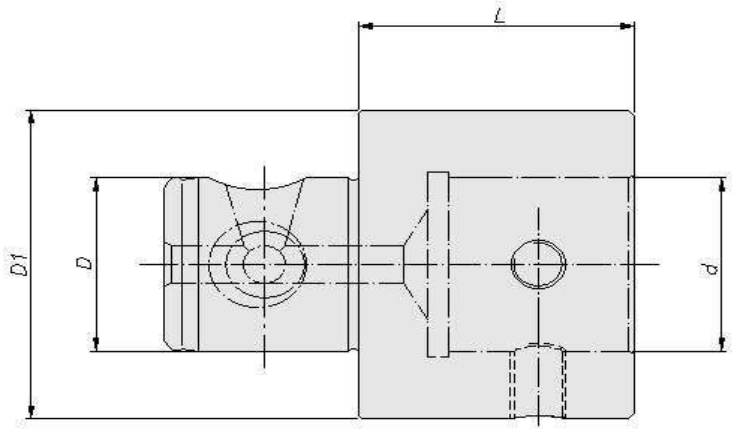


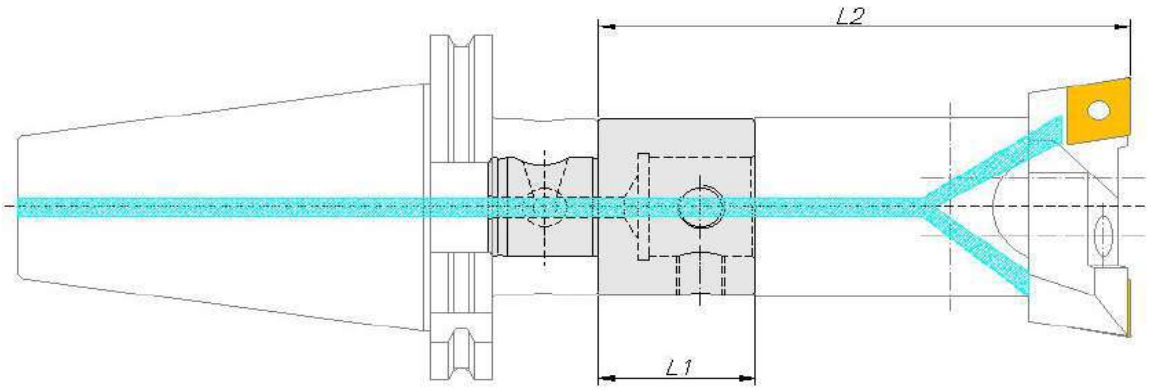
REDUÇÃO LONGA (CONEXÕES BASE 28-50 E 36-63)

REDUCTOR LARGA (CONEXIONES BASE 28-50 Y 36-63)

LONG REDUCTION (BASE CONNECTIONS 28-50 AND 36-63)

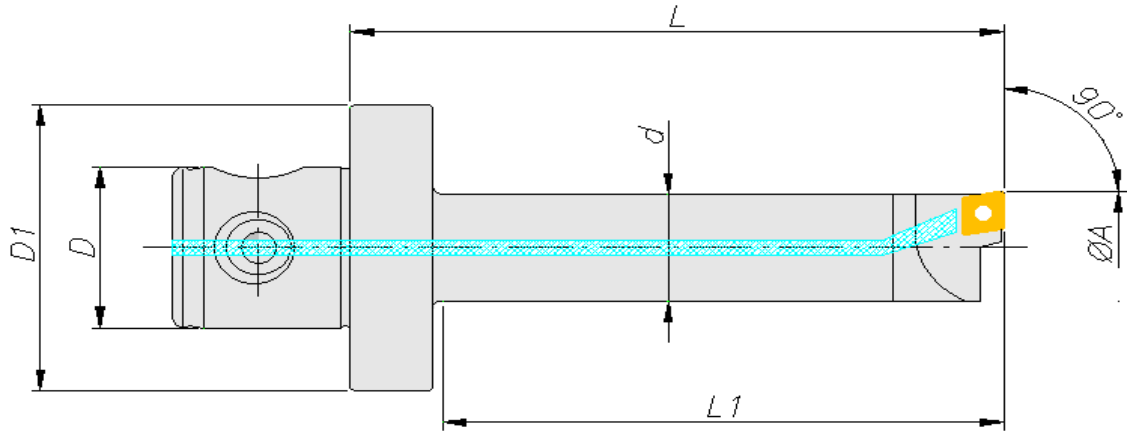
CÓDIGO CODE	REF. FLEXIFER FLEXIFER REF.	ØA	D	D1	d	d1	d2	d3	L	L1 (L1)	L2 (L2)	PESO WEIGTH (Kg)
54.05.250.22	**RCA-021**	24 - 29	**28**	**50**	11	22	22	23,5	**97**	80	120	0,6
54.05.350.22	**RCA-022**								**137**	120	160	0,7
54.05.250.25	**RCB-021**	29 - 37			14	25	25	28,5	**117**	100	156	0,8
54.05.350.25	**RCB-022**								**167**	150	206	1,0
54.05.450.25	**RCB-023**	36 - 44			14	25	32	35,5	**117**	100	156	1,1
54.05.550.25	**RCB-024**								**167**	150	206	1,4
54.05.250.32	**RCC-021**	43 - 54			18	32	40	42,5	**147**	130	196	1,7
54.05.350.32	**RCC-022**								**207**	190	256	2,3
54.05.250.40	**RCD-021**	53 - 66			22	40	50	50	**177**	(177)	(252)	2,9
54.05.350.40	**RCD-022**								**257**	(257)	(332)	4,2
54.05.163.22	**RAA-021**	24 - 29	**36**	**63**	11	22	22	23,5	**97**	80	120	0,9
54.05.363.22	**RAA-022**								**137**	120	160	1,0
54.05.563.25	**RAB-021**	29 - 37			14	25	25	28,5	**117**	100	156	1,1
54.05.663.25	**RAB-022**								**167**	150	206	1,3
54.05.763.25	**RAB-023**	36 - 44			14	25	32	35,5	**117**	100	156	1,4
54.05.863.25	**RAB-024**								**167**	150	206	1,7
54.05.363.32	**RAC-021**	43 - 54			18	32	40	42,5	**147**	130	196	2,0
54.05.463.32	**RAC-022**								**207**	190	256	2,6
54.05.363.40	**RAD-021**	53 - 66			22	40	50	52,5	**177**	160	235	3,2
54.05.463.40	**RAD-022**								**257**	240	315	4,5
54.05.463.50	**RAE-021**	65 - 83			28	50	50	63	**177**	(177)	(252)	3,9
54.05.563.50	**RAE-022**								**257**	(257)	(332)	5,5





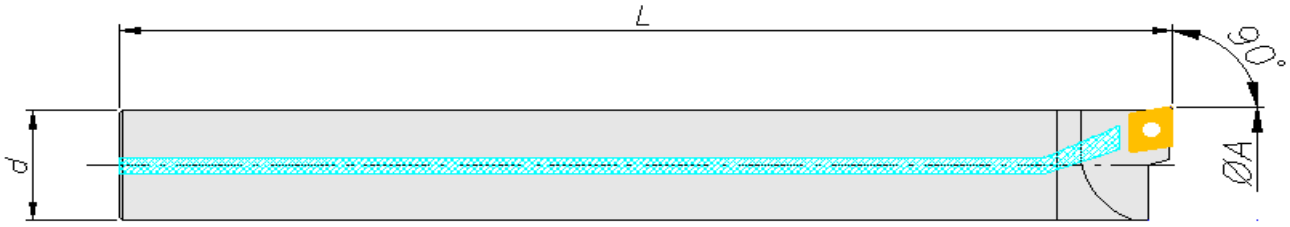
PROLONGADOR
PROLONGADOR
EXTENSION

CÓDIGO CODE	**REF. FLEXIFER** FLEXIFER REF.	**ØA**	**d**	**D**	**D1**	**L** L1	**L2**	**PESO** WEIGTH **(Kg)**
54.10.020.11	**PRA-001**	20 - 24	**11**	**11**	**19,5**	**40**	80	0,1
54.10.022.11	**PRA-002**	24 - 29	**11**	**11**	**22**	**40**	80	0,1
54.10.025.14	**PRB-001**	29 - 37 / 36 - 44	**14**	**14**	**25**	**40**	96	0,1
54.10.032.18	**PRC-001**	43 - 54	**18**	**18**	**32**	**40**	106	0,2
54.10.040.22	**PRD-001**	53 - 66	**22**	**22**	**40**	**40**	115	0,4
54.10.050.28	**PRE-001**	65 - 83	**28**	**28**	**50**	**40**	115	0,6
54.10.250.28	**PRE-003**					**80**	155	1,2
54.10.150.28	**PRE-002**					**100**	175	1,5
54.10.063.36	**PRF-001**	82 - 103	**36**	**36**	**63**	**50**	140	1,1
54.10.263.36	**PRF-003**					**80**	170	1,8
54.10.363.36	**PRF-004**					**100**	190	2,1
54.10.163.36	**PRF-002**					**125**	215	3,0
54.10.080.36	**PRG-001**	100 -205	**36**	**36**	**80**	**50**	140	1,8
54.10.380.36	**PRG-004**					**80**	170	3,0
54.10.480.36	**PRG-005**					**100**	190	3,9
54.10.180.36	**PRG-002**					**125**	215	4,8
54.10.280.36	**PRG-003**					**275**	365	10,7



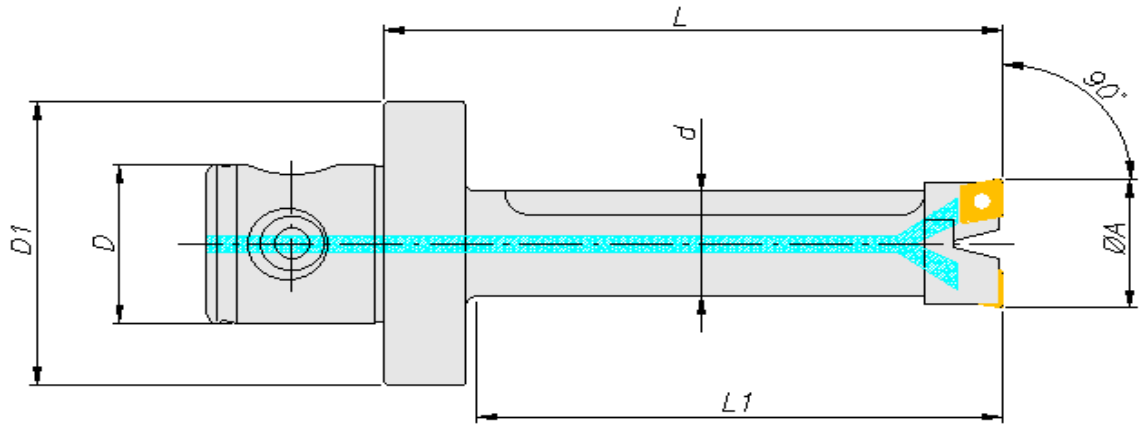
BARRA DE MANDRILAR DESBASTE 1 CORTE - CAPACIDADE Ø20 a 30mm
BARRA DE MANDRINAR DESBASTE 1 CORTE - CAPACIDAD Ø20 a 30mm
ROUGH BORING BAR 1 CUTTER - CAPACITY Ø20 to 30mm

ØA	D	D1	d	L	L1	PESO WEIGTH (Kg)	CÓDIGO CODE			
							CORPO SERRILHADO *CUERPO MOLETADO* TOOL BODY	PORTA INSERTO *PORTA PLAQUITAS* INSERT HOLDERS	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
20 - 24,5	28	50	18	95	80	0,6	CBA-001	FBA-001	CCMT 0602	BDA-001
24 - 30			20			0,6	CBA-002	FBA-002		BDA-002
20 - 24,5	36	63	18	95	80	0,8	CBA-003	FBA-001	CCMT 0602	BDA-003
24 - 30			20			0,8	CBA-004	FBA-002		BDA-004



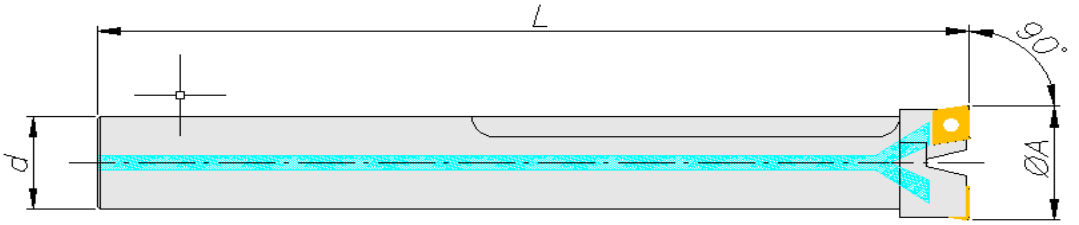
BARRA DE MANDRILAR DESBASTE 1 CORTE - CAPACIDADE Ø20 a 30mm
BARRA DE MANDRINAR DESBASTE 1 CORTE - CAPACIDAD Ø20 a 30mm
ROUGH BORING BAR 1 CUTTER - CAPACITY Ø20 to 30mm

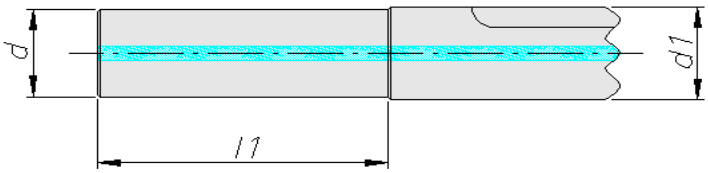
ØA	d	L	PESO WEIGTH (Kg)	CÓDIGO CODE			
				CORPO SERRILHADO *CUERPO MOLETADO* TOOL BODY	PORTA INSERTO *PORTA PLAQUITAS* INSERT HOLDERS	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
20 - 24,5	16	125	0,2	CBB-001	FBA-001	CCMT 0602	BDB-001
	18	160	0,3	CBB-002			BDB-002
24 - 30	16	125	0,2	CBB-003	FBA-002	CCMT 0602	BDB-003
	20	160	0,3	CBB-004			BDB-004



BARRA DE MANDRILAR DESBASTE 2 CORTES - CAPACIDADE Ø19,5 a 30mm
BARRA DE MANDRINAR DESBASTE 2 CORTES - CAPACIDAD Ø19,5 a 30mm
ROUGH BORING BAR 2 CUTTERS - CAPACITY Ø19,5 to 30mm

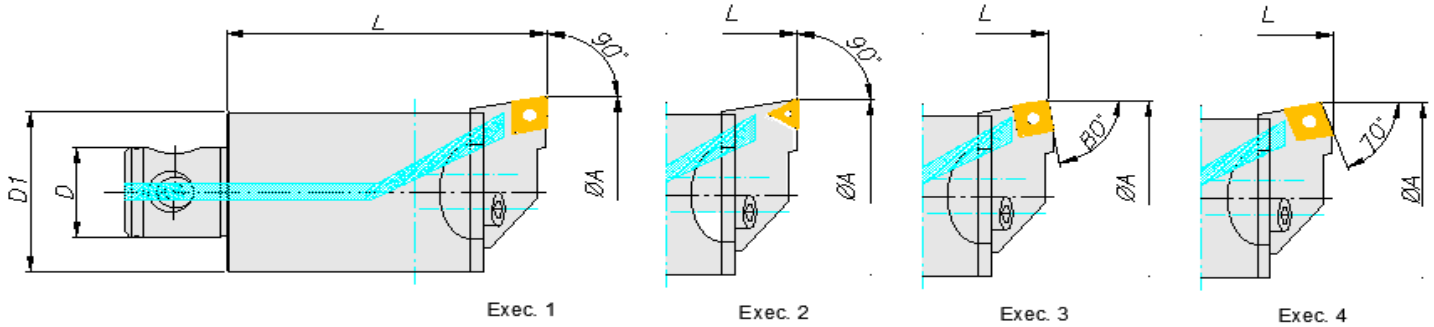
ØA	D	D1	d	L	L1	PESO WEIGTH (Kg)	CÓDIGO CODE			
							CORPO SERRILHADO *CUERPO MOLETADO* TOOL BODY	PORTA INSERTO *PORTA PLAQUITAS* INSERT HOLDERS	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
19,5 - 23	28	50	18	**95**	80	0,5	CBA-011	FBA-011	CCMT 0602	**BDA-281**
22,5 - 26			20			0,6	CBA-012	FBA-012		**BDA-282**
25,5 - 30			23			0,7	CBA-013	FBA-013		**BDA-283**





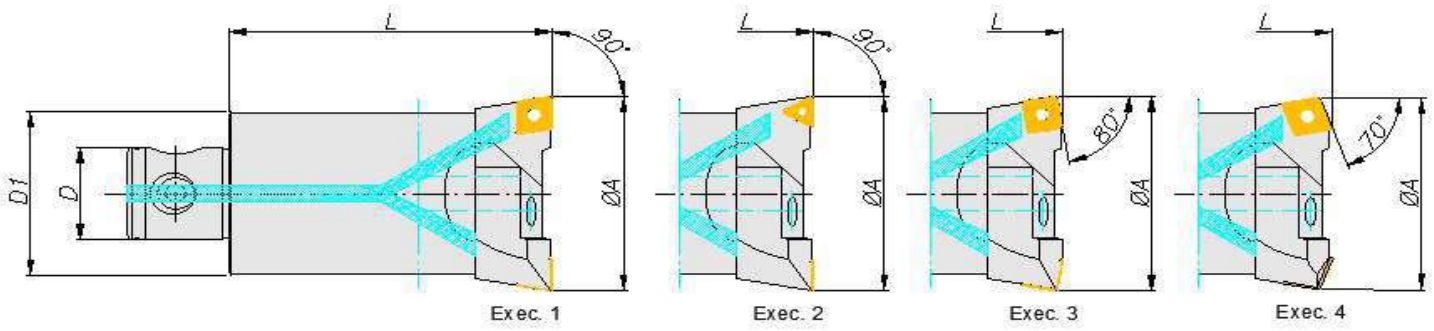
BARRA DE MANDRILAR DESBASTE 2 CORTES - CAPACIDADE Ø19,5 a 30mm
BARRA DE MANDRINAR DESBASTE 2 CORTES - CAPACIDAD Ø19,5 a 30mm
ROUGH BORING BAR 2 CUTTERS - CAPACITY Ø19,5 to 30mm

ØA	d	d1	L	l1	PESO WEIGTH (Kg)	CÓDIGO CODE			
						CORPO SERRILHADO *CUERPO MOLETADO* TOOL BODY	PORTA INSERTO *PORTA PLAQUITAS* INSERT HOLDERS	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
19,5 - 23	18	-	**150**	-	0,2	CBB-011	FBA-011	CCMT 0602	**BDB-201**
22,5 - 26	20	-	**150**	-	0,3	CBB-012	FBA-012		**BDB-202**
25,5 - 30	20	23	**160**	55	0,3	CBB-013	FBA-013		**BDB-203**



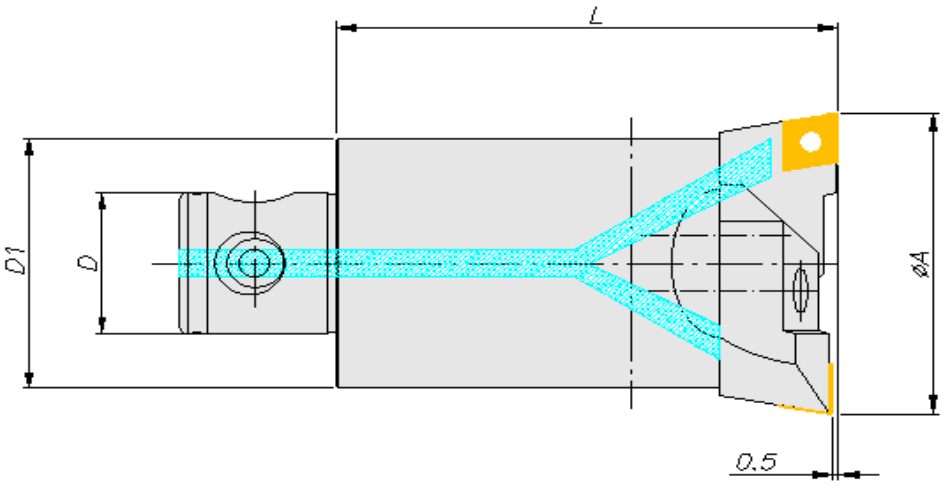
CABEÇOTE DE MANDRILAR DESBASTE 1 CORTE - CAPACIDADE Ø29 a 205mm
CABEZALE DE MANDRINADO DESBASTE 1 CORTE - CAPACIDAD Ø29 a 205mm
ROUGH BORING HEAD 1 CUTTER - CAPACITY Ø29 to 205mm

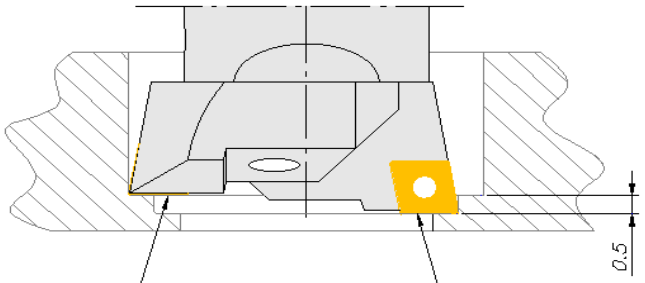
ØA	D	D1	L	PESO WEIGTH (Kg)	CÓDIGO CODE					
					CORPO SERRILHADO *CUERPO MOLETADO* TOOL BODY	PORTA INSERTO *PORTA PLAQUITAS* INSERT HOLDERS	EXEC	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	PLACA PROTEÇÃO *PLACA PROTECCIÓN* COVER PLATE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
29 - 37	14	25	**56**	0,2	CPD-001	FDA-001	1	CCMT 09T3	753.01	**MDB-001**
						FDC-001	2	TCMT 0902		**MDD-001**
						FDD-001	3	SCMT 09T3		**MDF-001**
						FDA-101	4	CCMT 09T3		**MDB-101**
36 - 44				0,3	CPD-002	FDA-002	1	CCMT 09T3	753.02	**MDB-002**
						FDC-002	2	TCMT 0902		**MDD-002**
						FDD-002	3	SCMT 09T3		**MDF-002**
						FDA-102	4	CCMT 09T3		**MDB-102**
43 - 54	18	32	**66**	0,4	CPD-003	FDA-003	1	CCMT 1204	753.03	**MDB-003**
						FDC-003	2	TCMT 1102		**MDD-003**
						FDD-003	3	SCMT 1204		**MDF-003**
						FDA-103	4	CCMT 1204		**MDB-103**
53 - 66	22	40	**75**	0,7	CPD-004	FDA-004	1	CCMT 1204	753.04	**MDB-004**
						FDC-004	2	TCMT 1102		**MDD-004**
						FDD-004	3	SCMT 1204		**MDF-004**
						FDA-104	4	CCMT 1204		**MDB-004**
65 - 83	28	50	**75**	1,0	CPD-005	FDA-005	1	CCMT 1204	753.05	**MDB-005**
						FDC-005	2	TCMT 1102		**MDD-005**
						FDD-005	3	SCMT 1204		**MDF-005**
						FDA-105	4	CCMT 1204		**MDB-105**
82 - 103	36	63	**90**	2,0	CPD-006	FDA-006	1	CCMT 1204	753.06	**MDB-006**
						FDA-016	1	CCMT 1605		**MDB-016**
						FDC-006	2	TCMT 16T3		**MDD-006**
						FDD-006	3	SCMT 1204		**MDF-006**
						FDA-106	4	CCMT 1204		**MDB-106**
						FDA-116	4	CCMT 1605		**MDB-116**
100 - 130	36	80	**90**	2,9	CPD-007	FDA-007	1	CCMT 1204	753.07	**MDB-007**
						FDA-017	1	CCMT 1605		**MDB-017**
						FDC-007	2	TCMT 16T3		**MDD-007**
						FDD-007	3	SCMT 1204		**MDF-007**
						FDA-107	4	CCMT 1204		**MDB-107**
						FDA-117	4	CCMT 1605		**MDB-117**
125 - 155				3,0		FDA-008	1	CCMT 1204		**MDB-008**
						FDA-018	1	CCMT 1605		**MDB-018**
						FDC-008	2	TCMT 16T3		**MDD-008**
						FDD-008	3	SCMT 1204		**MDF-008**
						FDA-108	4	CCMT 1204		**MDB-108**
						FDA-118	4	CCMT 1605		**MDB-118**
150 - 205				4,0	CPD-008	FDA-008	1	CCMT 1204	753.08	**MDB-009**
						FDA-018	1	CCMT 1605		**MDB-019**
						FDC-008	2	TCMT 16T3		**MDD-009**
						FDD-008	3	SCMT 1204		**MDF-009**
						FDA-108	4	CCMT 1204		**MDB-109**
						FDA-118	4	CCMT 1605		**MDB-119**



9PANI R I 9GI 9 ADG) 2LA) 9GI 1NA1 I 9Ç9PR) I 19¶PASAP2GAGI 9 Ç 9¶9ÇY ØØ
CABE9A5E DE MANDRINADO DESBASTE ØCORTES - CAPACIDAD ZØ a Ø0 mm
9 R 9NR) 2D 9 I AG9Ç9P I) 19¶PASAP2 9 Ç 9C9ÇY ØØ

A	G	GT	L	SI 1R , FIŠIT 65K7	PUG2 R9 ODEF				
					PR) SR 11)) 2L AGR *CUERPO MOLETADO* I DDL-NDE	SR) A9D11) R *PORTA PLAQUITAS* UCHFGI -TDLEFGH	I ol P	2D11) R9 2SR *PLAQUITA TIPO* UCHFGI -I F	NA)) A9PR SLI A *BARRA COMPLETA* ODB LFI F-I DDLH
Ç 9¶9	47	58		305	O E1334	REA1334	4	OOBI -3 I 6	GAHYYT
						REO1334	5	I OBI -3 35	GPHYYT
						REE1334	6	HOBI -3 I 6	GI HYYT
						REA1434	7	OOBI -3 I 6	GAHTYT
9¶9				306	O E1335	REA1335	4	OOBI -3 I 6	GAHYYÇ
						REO1335	5	I OBI -3 35	GPHYYÇ
						REE1335	6	HOBI -3 I 6	GI HYYÇ
						REA1435	7	OOBI -3 I 6	GAHTYÇ
9¶9	4P	65		307	O E1336	REA1336	4	OOBI -4537	GAHYY
						REO1336	5	I OBI -4435	GPHYY
						REE1336	6	HOBI -4537	GI HYY
						REA1436	7	OOBI -4537	GAHTY
9¶9	55	73		30Y	O E1337	REA1337	4	OOBI -4537	GAHYY
						REO1337	5	I OBI -4435	GPHYY
						REE1337	6	HOBI -4537	GI HYY
						REA1437	7	OOBI -4537	GAHTY
9¶9	5P	83		403	O E1338	REA1338	4	OOBI -4537	GAHYY
						REO1338	5	I OBI -4435	GPHYY
						REE1338	6	HOBI -4537	GI HYY
						REA1438	7	OOBI -4537	GAHTY
Ç9¶9TY	69	96	Y	503	O E1339	REA1339	4	OOBI -4537	GAHYY
						REA1349	4	OOBI -4938	GAHYT
						REO1339	5	I OBI -491 6	GPHYY
						REE1339	6	HOBI -4537	GI HYY
						REA1439	7	OOBI -4537	GAHTY
						REA1449	7	OOBI -4938	GAHTT
TYY9¶9T Y	69	P3	Y	50	O E133Y	REA133Y	4	OOBI -4537	GAHYY
						REA134Y	4	OOBI -4938	GAHYT
						REO133Y	5	I OBI -491 6	GPHYY
						REE133Y	6	HOBI -4537	GI HYY
						REA143Y	7	OOBI -4537	GAHTY
						REA144Y	7	OOBI -4938	GAHTT
TÇ 9¶9T				603		REA133P	4	OOBI -4537	GAHYY
						REA134P	4	OOBI -4938	GAHYT
						REO133P	5	I OBI -491 6	GPHYY
						REE133P	6	HOBI -4537	GI HYY
						REA143P	7	OOBI -4537	GAHTY
						REA144P	7	OOBI -4938	GAHTT
T Y9¶9ÇY				703	O E133P	REA133P	4	OOBI -4537	GAHYY
						REA134P	4	OOBI -4938	GAHYT
						REO133P	5	I OBI -491 6	GPHYY
						REE133P	6	HOBI -4537	GI HYY
						REA143P	7	OOBI -4537	GAHTY
						REA144P	7	OOBI -4938	GAHTT



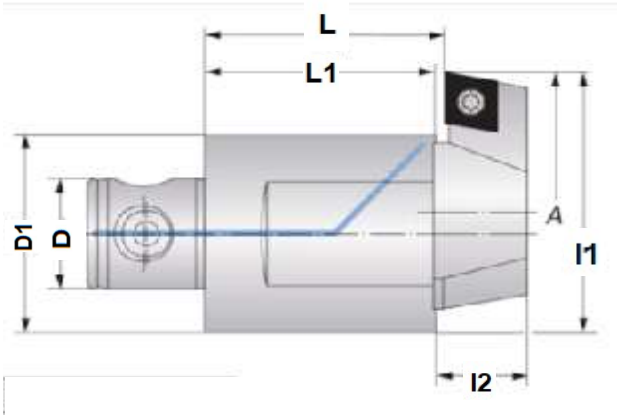


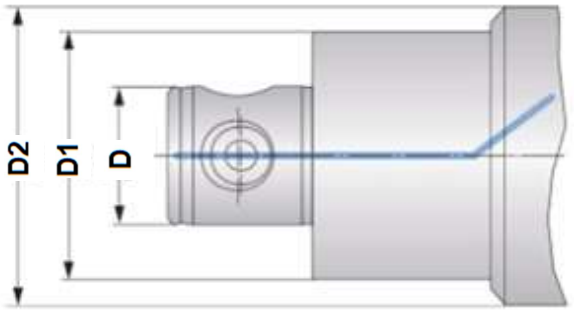
PORTA INSERTO EXTERNO
PORTA PLAQUITA EXTERNO
INSERT HPLDER EXTERNAL

PORTA INSERTO CENTRAL
PORTA PLAQUITA CENTRAL
INSERT HPLDER CENTRAL

CABEÇOTE DE MANDRILAR DESBASTE ESCALONADO 2 CORTES - CAPACIDADE Ø29 a 205mm
CABEZALE DE MANDRINADO DESBASTE ESCALONADO 2 CORTES - CAPACIDAD Ø29 a 205mm
STEP ROUGH BORING HEAD 2 CUTTERS - CAPACITY Ø29 to 205mm

ØA	D	D1	L	PESO WEIGTH (Kg)	CÓDIGO CODE					
					CORPO SERRILHADO *CUERPO MOLETADO* TOOL BODY	PORTA INSERTO CENTRAL *PORTA PLAQUITA CENTRAL* INSERT HOLDER CENTRAL	PORTA INSERTO EXTERNO *PORTA PLAQUITA EXTERNO* INSERT HOLDER EXTERNAL	EXEC	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
29 - 37	14	25	56	0,2	CPD-001	FDA-001	FDA-001A	1	CCMT 09T3	MDA-201
36 - 44				0,3	CPD-002	FDA-002	FDA-002A	1		MDA-202
43 - 54	18	32	66	0,4	CPD-003	FDA-003	FDA-003A	1	CCMT 1204	MDA-203
53 - 66	22	40	75	0,7	CPD-004	FDA-004	FDA-004A	1		MDA-204
65 - 83	28	50	75	1,0	CPD-005	FDA-005	FDA-005A	1		MDA-205
82 - 103	36	63	90	2,0	CPD-006	FDA-006	FDA-006A	1		MDA-206
						FDA-016	FDA-016A	1	CCMT 1605	MDA-216
100 - 130	36	80	90	2,9	CPD-007	FDA-007	FDA-007A	1	CCMT 1204	MDA-207
						FDA-017	FDA-017A	1	CCMT 1605	MDA-217
125 - 155				3,0		FDA-008	FDA-008A	1	CCMT 1204	MDA-208
						FDA-018	FDA-018A	1	CCMT 1605	MDA-218
150 - 205				4,0	CPD-008	FDA-008	FDA-008A	1	CCMT 1204	MDA-209
						FDA-018	FDA-018A	1	CCMT 1605	MDA-219

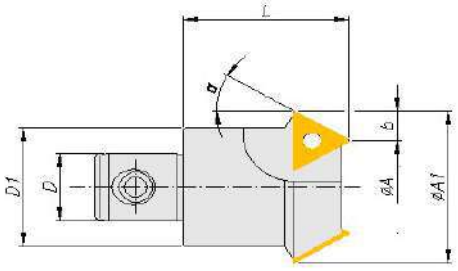




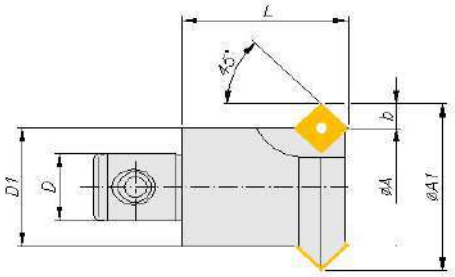
$$I1 = \frac{D1 \text{ ou } D2}{2} + \frac{A}{2} + 0{,}5mm$$

CABEÇOTE DE MANDRILAR DESBASTE RETORNO 1 CORTE - CAPACIDADE Ø29 a 245mm
CABEZALE DE MANDRINADO DESBASTE RETORNO 1 CORTE - CAPACIDAD Ø29 a 245mm
ROUGH BORING HEAD FOR RETURN 1 CUT - CAPACITY Ø29 to 245mm

ØA	D	D1	D2	L	L1	I2	PESO WEIGTH (Kg)	CÓDIGO CODE			
								CORPO SERRILHADO *CUERPO MOLETADO* TOOL BODY	PORTA INSERTO EXTERNO *PORTA PLAQUITA EXTERNO* INSERT HOLDER EXTERNAL	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
29 - 37	14	25	-	**40**	39	14	0,2	CPR-001	FDR-001	CCMT 09T3	**MDR-001**
34 - 42									FDR-002		**MDR-011**
36 - 44								CPR-002			**MDR-002**
44 - 52						18	0,2		FDR-003	CCMT 1204	**MDR-012**
43 - 54	18	32	-	**40**	39	18	0,3	CPR-003			**MDR-003**
55 - 66							0,4		FDR-004		**MDR-013**
53 - 72	22	40	-	**40**	39	18	0,5	CPR-004			**MDR-004**
66 - 85									FDR-014		**MDR-014**
70 - 95	28	50	-	**56**	55	22	1,1	CPR-005	FDR-005		**MDR-005**
92 - 117							1,3		FDR-006		**MDR-015**
92 - 122	36	63	-	**56**	55	22	1,7	CPR-006			**MDR-006**
120 - 150	36	80	-	**62**	60	26	2,7	CPD-007	FDR-007		**MDR-007**
166 - 196							2,9		FDR-008		**MDR-017**
145 - 200			125				3,6	CPD-008	FDR-007		**MDR-008**
190 - 245							3,7		FDR-008		**MDR-018**



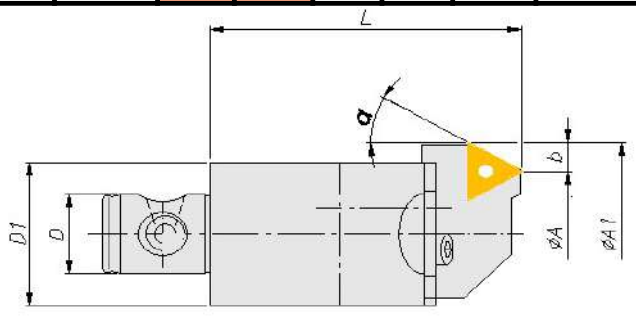
Execução 1



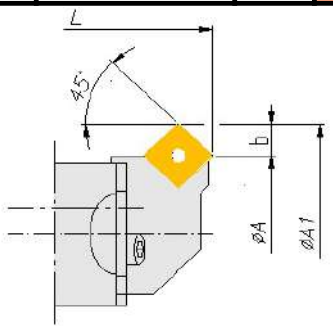
Execução 2

CABEÇOTE PARA CHANFRAR 15º, 30º E 45º
CABEZALE PARA BISELADO 15º, 30º E 45º
BORING HEAD FOR CHANFER 15º, 30º E 45º

ÂNGULO DE TRABALHO *ÁNGULO DE TRABAJO* WORKING ANGLE α	ØA	ØA1	D	D1	L	b	PESO WEIGTH (Kg)	CÓDIGO CODE N° CORTES Z / Nº CORTES / Nº CUTTERS	INSERTO TIPO / PLAQUITA TIPO / INSERT TYPE	EXEC	BARRA COMPLETA / BARRA COMPLETA / COMPLETE TOOLS
15°	25	33	14	25	31	4	0,2	2	TCMT 16T3	1	CFF-001
30°	25	41	18	32	41	8	0,3	2			CFA-001
45°	20	33	14	25	31	6,5	0,2	2	SCMT 09T3	2	CFB-001
	32	45	18	32	41	6,5	0,3	3			CFB-002



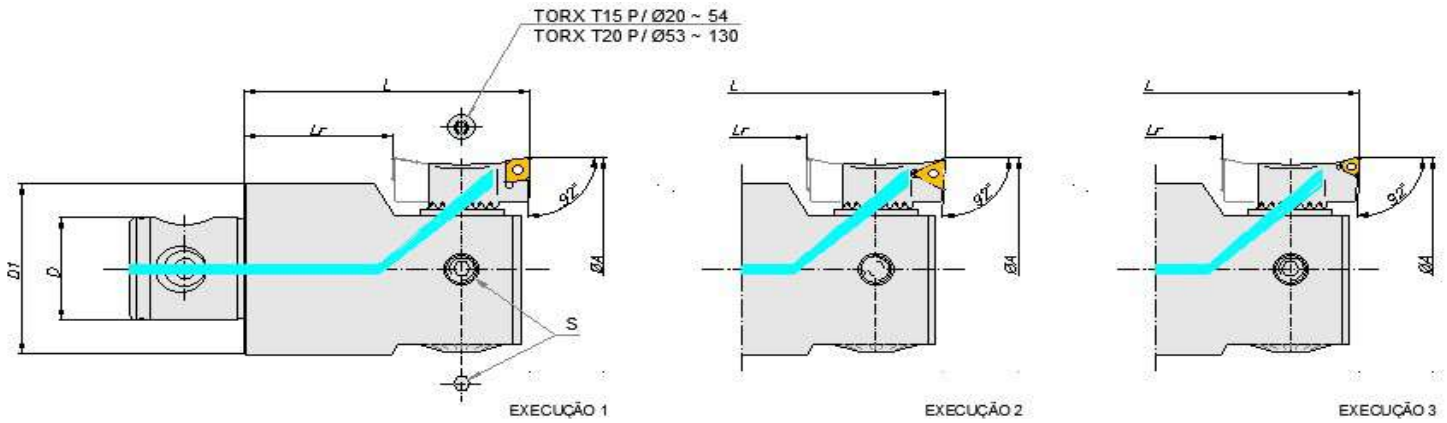
Execução 1



Execução 2

CABEÇOTE PARA CHANFRAR 15º, 30º E 45º
CABEZALE PARA BISELADO 15º, 30º E 45º
BORING HEAD FOR CHANFER 15º, 30º E 45º

ÂNGULO DE TRABALHO *ÁNGULO DE TRABAJO* WORKING ANGLE α	ØA	ØA1	D	D1	L	b	PESO WEIGTH (Kg)	CÓDIGO CODE CORPO SERRILHADO / CUERPO MOLETADO / TOOL BODY	PORTA INSERTO / PORTA PLAQUITA / INSERT HOLDER	EXEC	INSERTO TIPO / PLAQUITA TIPO / INSERT TYPE	BARRA COMPLETA / BARRA COMPLETA / COMPLETE TOOLS
15º	37-50	45-58	22	40	80	4	0,7	CPD-004	FDG-001	1	TCMT 16T3	CFG-001
	50-68	58-76	28	50			1,0	CPD-005	FDG-002			CFG-002
	68-89	76-97	36	63	90		2,0	CPD-006	FDG-003			CFG-003
	89-119	97-127	36	80	90		2,9	CPD-007	FDG-004			CFG-004
	119-149	127-159					3,0		FDG-005			CFG-005
	144-199	152-207	36	80/125	90		4,0	CPD-008				CFG-006
30°	37-50	52-65	22	40	80	8	0,7	CPD-004	FDF-001	1	TCMT 16T3	CFC-001
	50-68	65-83	28	50			1,0	CPD-005	FDF-002			CFC-002
	68-89	83-104	36	63	90		2,0	CPD-006	FDF-003			CFC-003
	89-119	104-134	36	80	90		2,9	CPD-007	FDF-004			CFC-004
	119-149	134-164					3,0		FDF-005			CFC-005
	144-199	159-214	36	80/125	90		4,0	CPD-008				CFC-006
45°	43-56	58-71	22	40	80	8	0,7	CPD-004	FDB-001	2	SCMT 1204	CFD-001
	55-73	70-88	28	50			1,0	CPD-005	FDB-002			CFD-002
	72-93	87-108	36	63	90		2,0	CPD-006	FDB-003			CFD-003
	92-122	107-137	36	80	90		2,9	CPD-007	FDB-004			CFD-004
	121-151	136-166					3,0		FDB-005			CFD-005
	146-201	161-216	36	80/125	90		4,0	CPD-008				CFD-006



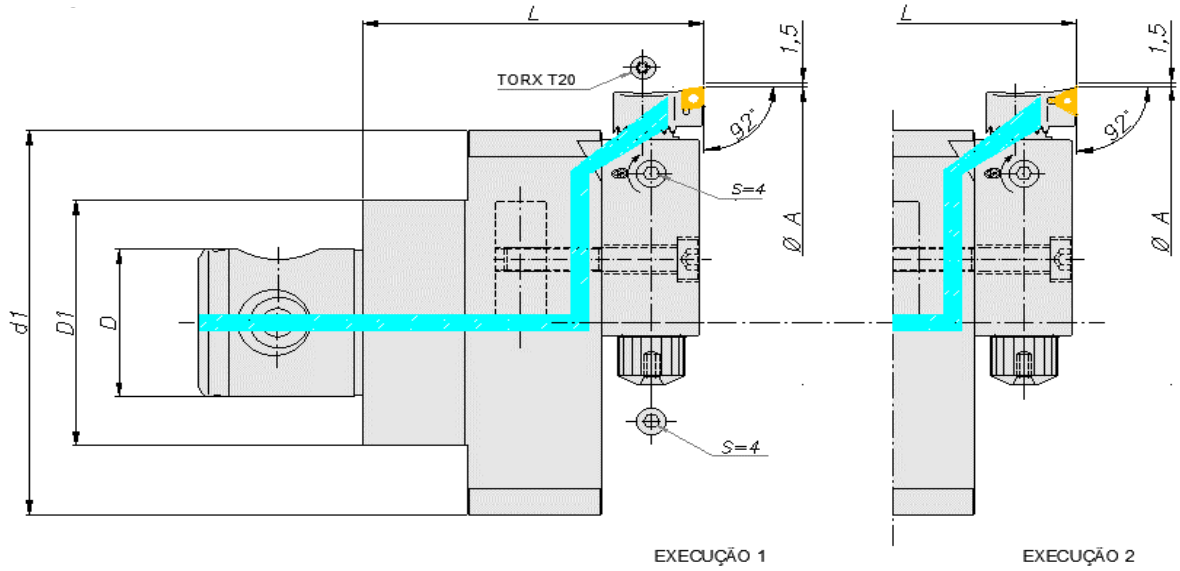
REGULAGEM MICROMÉTRICA (mm)		= 0,50Ø
REGULACIÕN MICROMETRICA (mm)		= 0,01Ø
FINE ADJUSTMENT (mm)	nônio	= 0,002Ø

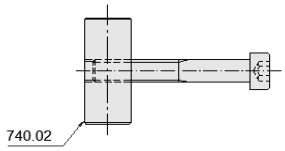
CABEÇOTE MICROMÉTRICO - CAPACIDADE Ø20 a 130mm
CABEZALE DE PRECISION - CAPACIDAD Ø20 a 130mm
FINE BORING TOOLS - CAPACITY Ø20 to 130mm

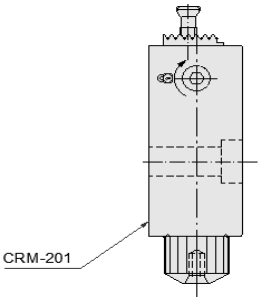
ØA	D	D1	L	Lr	S	PESO WEIGTH (Kg)	CÓDIGO CODE				
							CORPO SERRILHAD *CUERPO MOLETADO* TOOL BODY	PORTA INSERTO *PORTA PLAQUITAS* INSERT HOLDERS	EXEC	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
20 - 24	11	18	**40**	-	2,5	0,1	CPM-108	FMA-014	1	CCMT 0602	**CMA-028**
								FMW-004	3	WBGT 0201	**CMW-028**
24 - 29	11	22	**40**	-	2,5	0,1	CPM-109	FMA-011	1	CCMT 0602	**CMA-029**
								FMW-011	3	WBGT 0201	**CMW-029**
29 - 37	14	26	**56**	-	2,5	0,2	CPM-101	FMA-011	1	CCMT 0602	**CMA-021**
								FMW-011	3	WBGT 0201	**CMW-021**
36 - 44				28				FMA-012	1	CCMT 0602	**CMA-022**
								FMC-012	2	TCMT 0902	**CMA-032**
								FMW-012	3	WBGT 0201	**CMW-022**
43 - 54	18	32	**66**	38	4	0,4	CPM-103	FMA-012	1	CCMT 0602	**CMA-023**
								FMC-012	2	TCMT 0902	**CMA-033**
								FMW-012	3	WBGT 0201	**CMW-023**
53 - 66	22	40	**75**	39	4	0,7	CPM-104	FMA-013	1	CCMT 0602	**CMA-024**
								FMA-023		CCMT 09T3	**CMA-124**
								FMC-013	2	TCMT 0902	**CMA-034**
								FMC-023		TCMT 1102	**CMA-134**
65 - 83	28	50	**75**	39	4	1,1	CPM-105	FMA-013	1	CCMT 0602	**CMA-025**
								FMA-023		CCMT 09T3	**CMA-125**
								FMC-013	2	TCMT 0902	**CMA-035**
								FMC-023		TCMT 1102	**CMA-135**
82 - 103	36	63	**90**	54	4	2,2	CPM-106	FMA-013	1	CCMT 0602	**CMA-026**
								FMA-023		CCMT 09T3	**CMA-126**
								FMC-013	2	TCMT 0902	**CMA-036**
								FMC-023		TCMT 1102	**CMA-136**
100 - 130	36	80	**90**	54	4	3,5	CPM-107	FMA-013	1	CCMT 0602	**CMA-027**
								FMA-023		CCMT 09T3	**CMA-127**
								FMC-013	2	TCMT 0902	**CMA-037**
								FMC-023		TCMT 1102	**CMA-137**

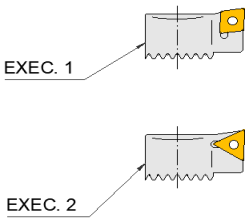
REGULAGEM MICROMÉTRICA (mm) *REGULACIÖN MICROMETRICA (mm)* FINE ADJUSTMENT (mm)	= 0,20Ø = 0,01Ø

CURSO MÁXIMO (mm) *RECORRIDO MÁXIMO (mm)* FINE STROKE (mm)	1,5 (r) 3,0 (Ø)





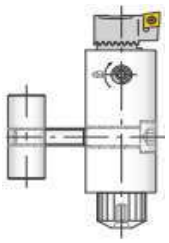




CABEÇOTE MICROMÉTRICO - CAPACIDADE Ø100 a 205mm
CABEZALE DE PRECISION - CAPACIDAD Ø100 a 205mm
FINE BORING TOOLS - CAPACITY Ø100 to 205mm

ØA	D	D1	d1	L	S	PESO WEIGTH (Kg)	CÓDIGO CODE CORPO SERRILHADO *CUERPO MOLETADO* TOOL BODY	ELEMENTO FIXAÇÃO ELEMENTO FIJACIÓN CLAMPING ELEMENT	CORPO MICROMÉTRICO *CUERPO DE PRECISION* PRECISION BORING TOOLS	PORTA INSERTO *PORTA PLAQUITAS* INSERT HOLDERS	EXEC	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
100 - 155	36	80	-	90	4	3,6	CPD-007	740.02	CRM-201	FMA-013	1	CCMT 0602	**CMC-001**
										FMA-023		CCMT 09T3	**CMC-021**
										FMC-013	2	TCMT 0902	**CMC-011**
										FMC-023		TCMT 1102	**CMC-031**
150 - 205			125			4,6	CPD-008	740.02	CRM-201	FMA-013	1	CCMT 0602	**CMC-002**
										FMA-023		CCMT 09T3	**CMC-022**
										FMC-013	2	TCMT 0902	**CMC-012**
										FMC-023		TCMT 1102	**CMC-032**

CARTUCHO MICROMÉTRICO - CAPACIDADE Ø100 a 205mm
CUERPO DE PRECISION - CAPACIDAD Ø100 a 205mm
PRECISION BORING TOOLS - CAPACITY Ø100 to 205mm



ØA	PESO WEIGTH (Kg)	CÓDIGO *CÓDIGO* CODE CORPO MICROMÉTRICO *CUERPO DE PRECISION* PRECISION BORING TOOLS	ELEMENTO FIXAÇÃO *ELEMENTO FIJACIÓN* CLAMPING ELEMENT	PORTA INSERTO *PORTA PLAQUITA* INSERT HOLDER	EXEC	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
100 - 205	0,5	CRM-201	740.02	FMA-013	1	CCMT 0602	**CRM-202**
				FMA-023		CCMT 09T3	**CRM-212**
				FMC-013	2	TCMT 0902	**CRM-203**
				FMC-023		TCMT 1102	**CRM-213**

CABEÇOTE MICROMÉTRICO - CAPACIDADE Ø3 - 150mm MODELO CMB-201

*** Utilizando todo Know-How adquirido durante anos na fabricação de ferramentas, apresentamos uma nova família deste produto, com capacidade para mandrilamento com resolução milesimal de Ø3 - 150mm.**
*** Possui um anel de reforço frontal, além de um novo sextavado para regulagem de 4mm.**
*** Com a mesma chave de 4mm, solta-se o parafuso de trava e realiza a regulagem micrométrica.**
*** Possui acoplamento modular Ø28/50**
*** Foi projetado para a utilização numa gama de diametro de Ø3-150mm, onde os corpos serrilhados para a faixa de Ø32 a 52mm e Ø100 a 150mm, são construídos em Alumínio, resultando em uma montagem leve e precisa.**
*** Todas as barras e porta insertos da linha standard utilizam insertos de metal duro da norma ISO.**
*** Possui passagem de liquido refrigerante para todas as barras do conjunto (exceto para Ø52 - 102).**
*** Todas as barras da versão anterior CMB-001 são compatíveis com este novo modelo.**
*** Disponível em várias opções de Kits em pratica embalagem.**





CABEZALE DE PRECISION - CAPACIDAD Ø3 - 150mm MODELO CMB-201

** Com uso de todo nuestro conocimiento alcanzado de años em la fabricación de cabezales de precision, que introduce uma nueva família de este producto, com capacidad a mandrinamiento de precision Ø3 - 150mm.*
** Tiene un anillo de refuerzo frontal, además de un nuevo hexágono para un ajuste de 4 mm.*
** Con la misma llave de 4 mm, afloje el tornillo de bloqueo y realice el ajuste micrométrico.*
** Tiene un tamaño de acoplamiento modular Ø28/50*
** Deseñado para uso em uma amplia gama de diâmetros, donde los cuerpos moletados para Ø32 a 52mm e Ø100 a 150mm, son fabricados em alumínio, resultando em uma assamblea luz y precisa.*
** Todas las barres y porta-plaquitas de la línea estándar utilizam plaquitas de metal duro de acuerdo com la estandár ISO.*
** Há la aprobación del fluido refrigerante para todas las barras de la linea (excepto por Ø52 - 102).*
** Todas las barras de la versión anterior CMB-001 son compatibles con este nuevo modelo.*
** Disponible em muchas opciones de KIT's em practica embalaje.*

FINE BORING TOOLS - CAPACITY Ø3 - 150mm MODEL CMB-201

* Using all our know-how acquired for years in manufacture of fine boring tools, we present a new family of this product with work capacity to fine boring Ø3 - 150mm.
* It has a front reinforcement ring, in addition to a new hexagon for 4mm adjustment.
* Using the same 4mm wrench, loosen the locking screw and perform micrometric adjustment.
* Has modular coupling size Ø28/50
* It was designed for use in a diameter range of Ø3-150mm, where the serrated bodies for the range of Ø32 to 52mm and Ø100 to 150mm, are constructed in Aluminum, resulting in a light and precise assembly.
* All bars and insert holders of standard line use carbide inserts according to ISO standard.
* Has coolant passage for all bars in the set (except for Ø52 - 102).
* All bars of the previous version CMB-001 are compatible with this new model.
* Available in several options of kits in practical packaging.

CABEÇOTE MICROMÉTRICO - CAPACIDADE Ø3 - 150mm MODELO CMB-201
CABEZALE DE PRECISION - CAPACIDAD Ø3 - 150mm MODELO CMB-201
FINE BORING TOOLS - CAPACITY Ø3 - 150mm MODEL CMB-201









CABEÇOTE MICROMÉTRICO - CAPACIDADE Ø3 - 208mm MODELO CMB-301

*** Utilizando todo Know-How adquirido durante anos na fabricação de ferramentas, apresentamos uma nova família deste produto, com capacidade para mandrilamento com resolução milesimal de Ø3 - 208mm.**
*** Possui um anel de reforço frontal, além de um novo sextavado para regulagem de 4mm.**
*** Com a mesma chave de 4mm, solta-se o parafuso de trava e realiza a regulagem micrométrica.**
*** Possui acoplamento modular tamanho Ø36/63**
*** Foi projetado para a utilização numa gama de diametro de Ø3-208mm, onde os corpos serrilhados para a faixa de Ø32 a 208mm, são construídos em Alumínio, resultando em uma montagem leve e precisa.**
*** Todas as barras e porta insertos da linha standard utilizam insertos de metal duro da norma ISO.**
*** Possui passagem de liquido refrigerante para todas as barras do conjunto.**
*** Disponível em várias opções de Kits em pratica embalagem.**

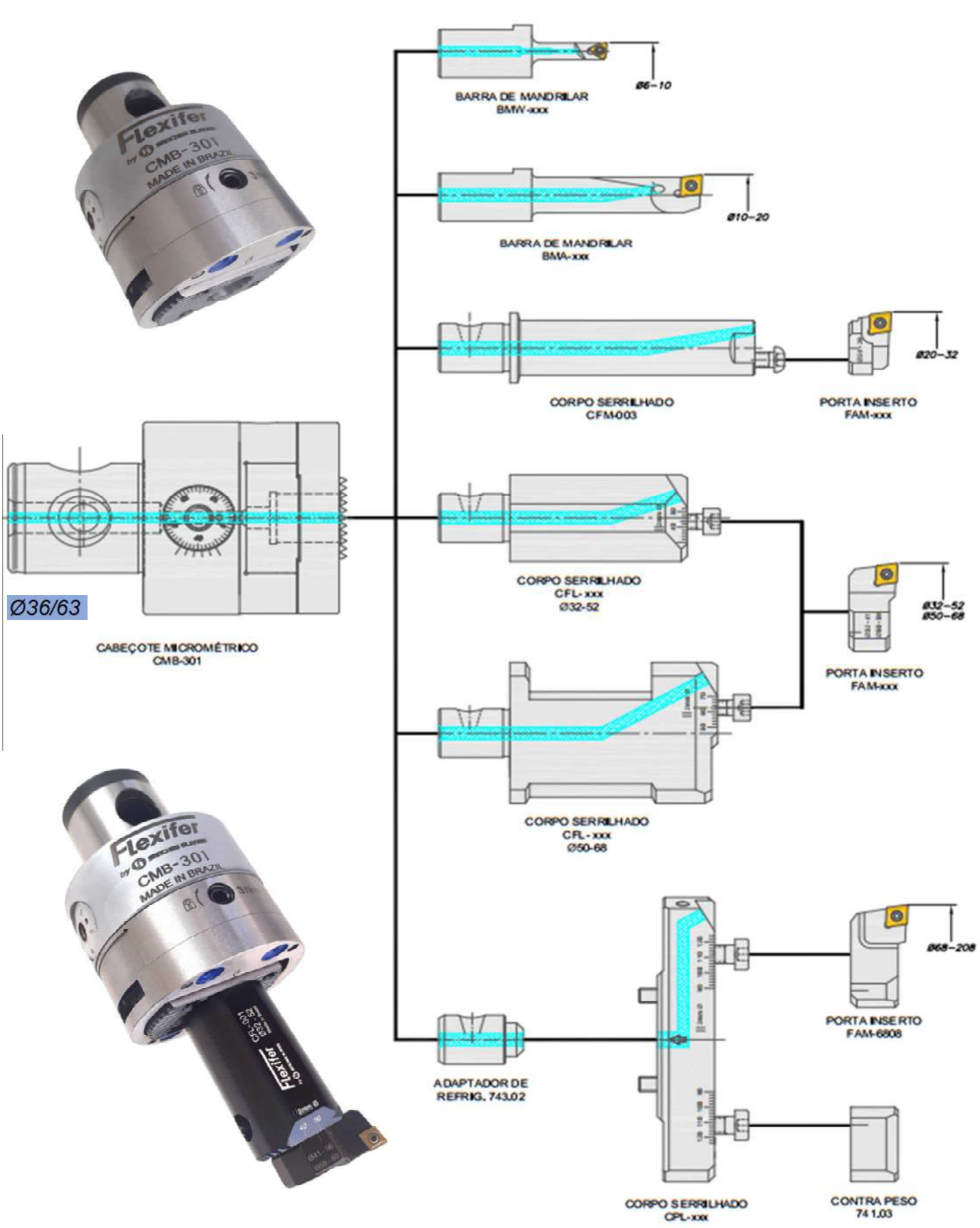
CABEZALE DE PRECISION - CAPACIDAD Ø3 - 208mm MODELO CMB-301

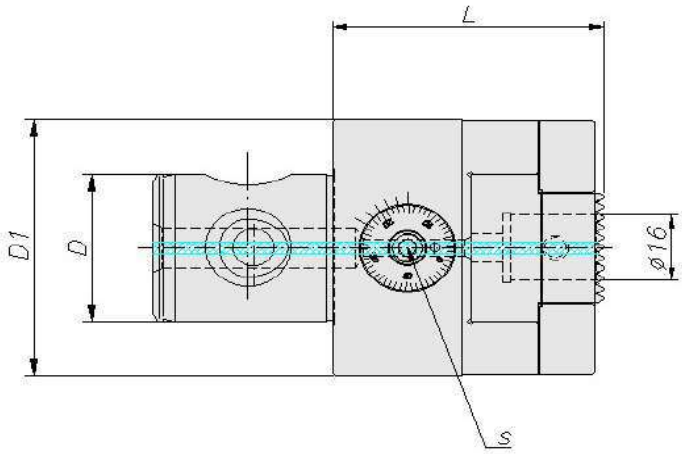
** Com uso de todo nuestro conocimiento alcanzado de años em la fabricación de cabezales de precision, que introduce uma nueva família de este producto, com capacidad a mandrinamiento de precision Ø3 - 208mm.*
** Tiene un anillo de refuerzo frontal, además de un nuevo hexágono para un ajuste de 4 mm.*
** Con la misma llave de 4 mm, afloje el tornillo de bloqueo y realice el ajuste micrométrico.*
** Tiene un tamaño de acoplamiento modular Ø36/63*
** Deseñado para uso em uma amplia gama de diâmetros, donde los cuerpos moletados para Ø32 a 208mm, son fabricados em alumínio, resultando em uma assamblea luz y precisa.*
** Todas las barres y porta-plaquitas de la línea estándar utilizam plaquitas de metal duro de acuerdo com la estandár ISO.*
** Há la aprobación del fluido refrigerante para todas las barras de la linea.*
** Disponible em muchas opciones de KIT's em practica embalaje.*

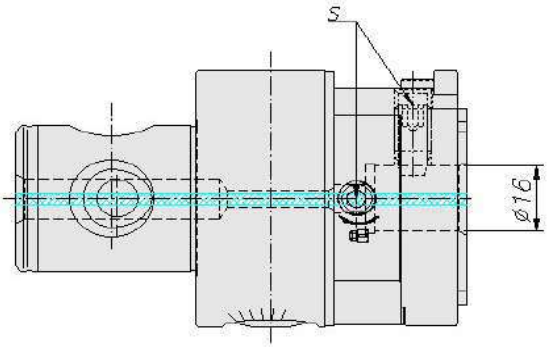
FINE BORING TOOLS - CAPACITY Ø3 - 208mm MODEL CMB-301

* Using all our know-how acquired for years in manufacture of fine boring tools, we present a new family of this product with work capacity to fine boring Ø3 - 208mm.
* It has a front reinforcement ring, in addition to a new hexagon for 4mm adjustment.
* Using the same 4mm wrench, loosen the locking screw and perform micrometric adjustment.
* Has modular coupling size Ø36/63
* It was designed for use in a diameter range of Ø3-208mm, where the serrated bodies for the range of Ø32 to 208mm, are constructed in Aluminum, resulting in a light and precise assembly.
* All bars and insert holders of standard line use carbide inserts according to ISO standard.
* Has coolant passage for all bars in the set.
* Available in several options of kits in practical packaging.

CABEÇOTE MICROMÉTRICO - CAPACIDADE Ø3 - 208mm MODELO CMB-301
CABEZALE DE PRECISION - CAPACIDAD Ø3 - 208mm MODELO CMB-301
FINE BORING TOOLS - CAPACITY Ø3 - 208mm MODEL CMB-301











REGULAGEM MICROMÉTRICA (mm)	○	= 0,50Ø
REGULACIÕN MICROMETRICA (mm)	→|←	= 0,01Ø
FINE ADJUSTMENT (mm)	nônio	= 0,002Ø

IMPORTANTE

Cuidados para não danificar o cabeçote micrométrico:

Antes de iniciar qualquer ajuste no cabeçote micrométrico, soltar o parafuso de trava do sistema e trava-lo ao término do ajuste.

Prestar atenção aos limites do campo de trabalho do cabeçote micrométrico, não forçando quando o mesmo chegar ao fim de curso.

IMPORTANTE

Cuidado de no dañar el Cabezale de Precisión:

Antes de iniciar cualquier ajuste en el Cabezale de Precisión, aflojar el tornillo de seguridad y trabar al final del ajuste.

Preste atención a los limites del campo de trabajo del Cabezale de Precisión, non forzar cuando se alcanza el límite.

IMPORTANT

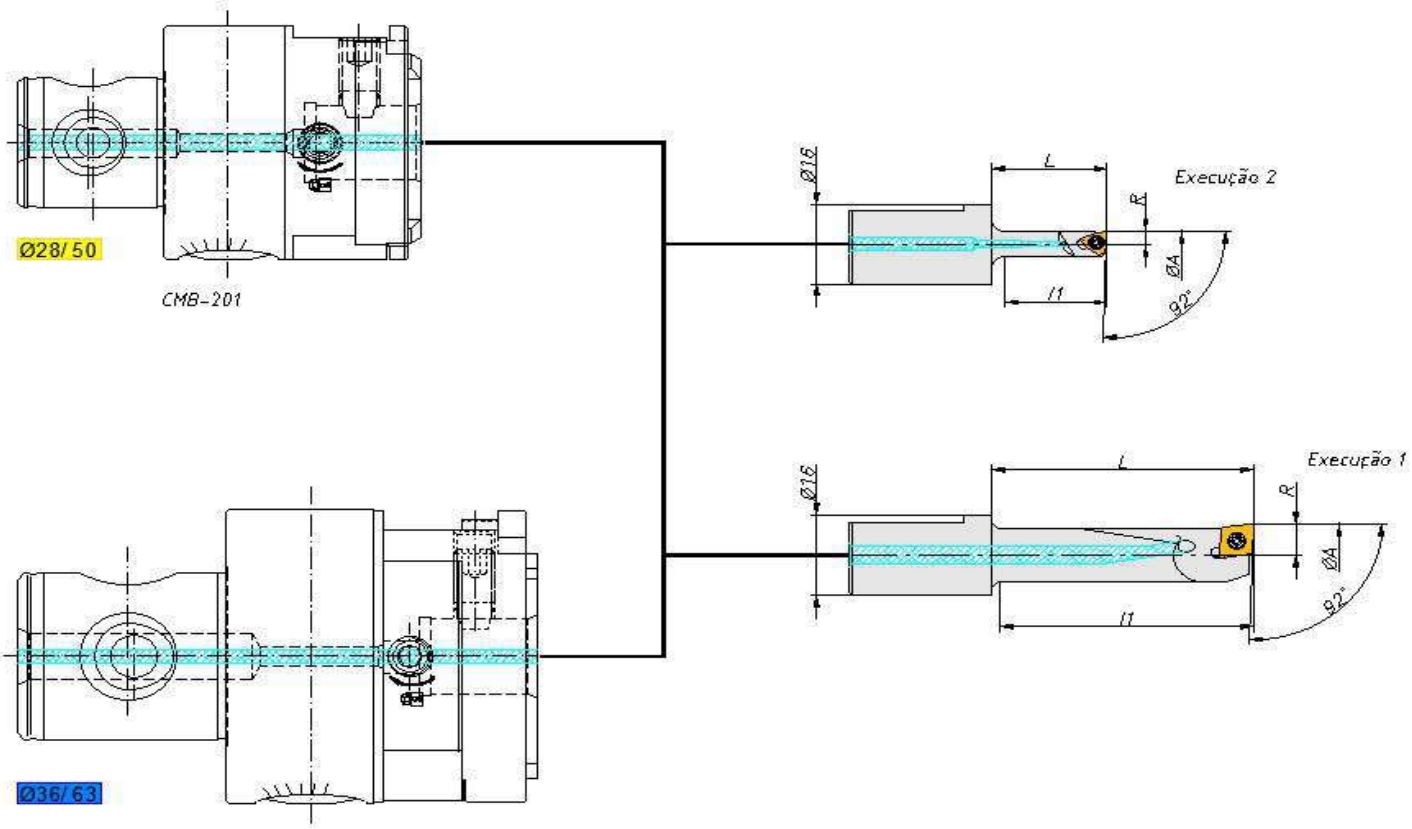
Precautions not to damage the Fine Boring Tool:

Before start wherever adjust on Fine Boring Tool, loosen screw safety catch and close on the end of adjust.

Be careful to the Fine Boring Tool field work limits, don't forcing when come on the final stroke.

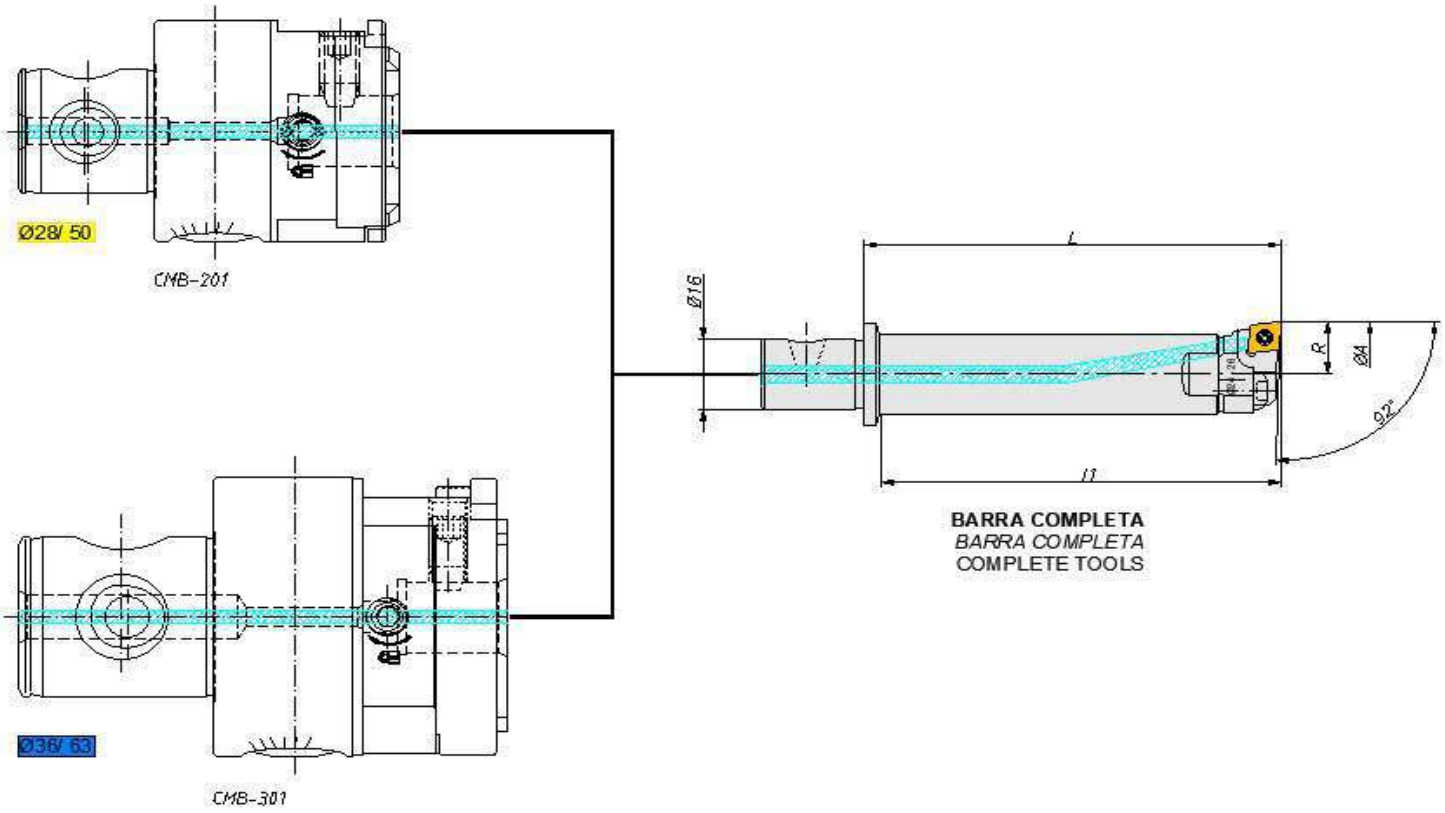
CABEÇOTE MICROMÉTRICO - CMB
CABEZALE DE PRECISION - CMB
FINE BORING TOOLS - CMB

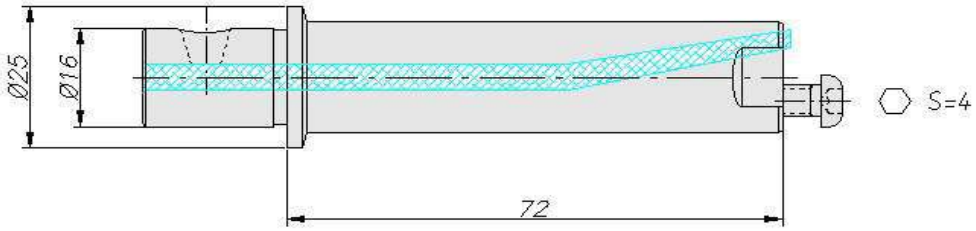
ØA	D	D1	L	S	CURSO MÁXIMO *CURSO MÁXIMO* MAXIMUM COURSE	PESO WEIGTH (Kg)	CÓDIGO CODE
3 - 150	28	50	**50**	4	2,5	0,8	**CMB-201**
3 - 208	36	63	**60**	4	3	1,3	**CMB-301**

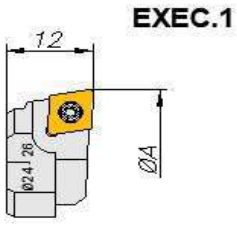


BARRA DE MANDRILAR PARA ACABAMENTO - CAPACIDADE Ø6 a 20mm
BARRES DE MANDRINAR PARA ACABAMENTO - CAPACIDAD Ø6 a 20mm
BORING BARS FOR MICROMETRIC HEAD - CAPACITY Ø6 to 20mm

ØA	L	l1	R	PESO WEIGTH (Kg)	EXEC	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	CÓDIGO CODE
6 - 8 (6 - 10)	**22**	19	2,8	0,05	2	WBGT 0201	**BMW-001**
8 - 10 (8 - 12)	**30**	27	3,8	0,05			**BMW-002**
10 - 12 (10 - 15)	**45**	42	4,8	0,07	1	CCMT 0602	**BMA-001**
12 - 14 (12 - 17)	**45**	42	5,8	0,07			**BMA-006**
14 - 16 (14 - 19)	**50**	47	6,8	0,08			**BMA-007**
15 - 17 (15 - 20)	**60**	57	7,3	0,09			**BMA-002**
16 - 18 (16 - 21)	**60**	57	7,8	0,10			**BMA-008**
18 - 20 (18 - 23)	**70**	67	8,8	0,12			**BMA-009**

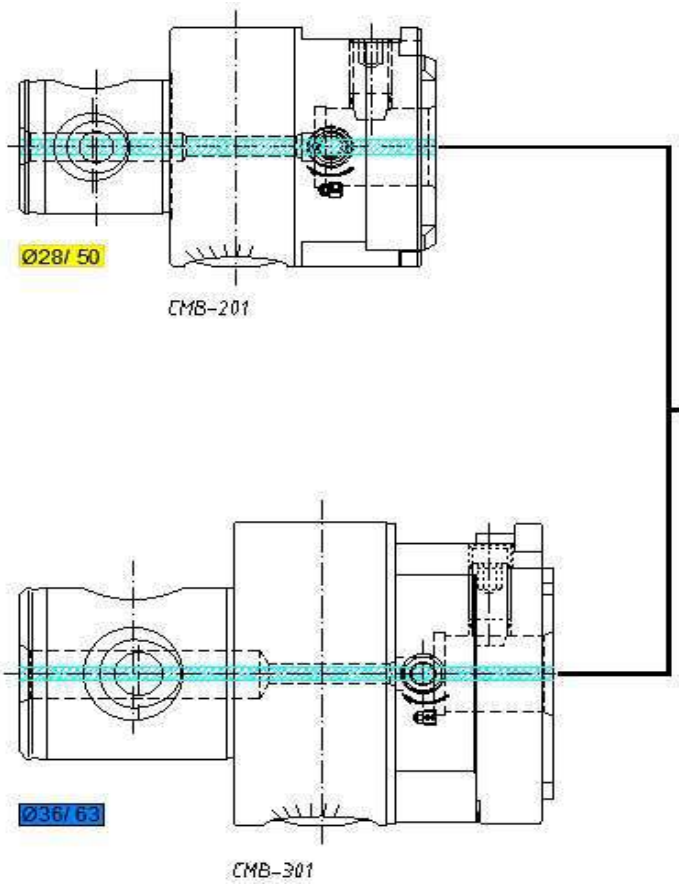


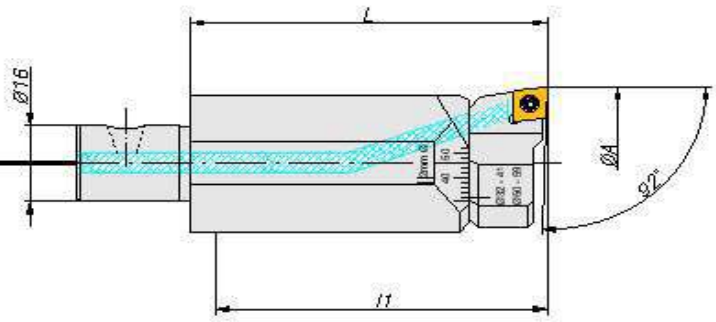




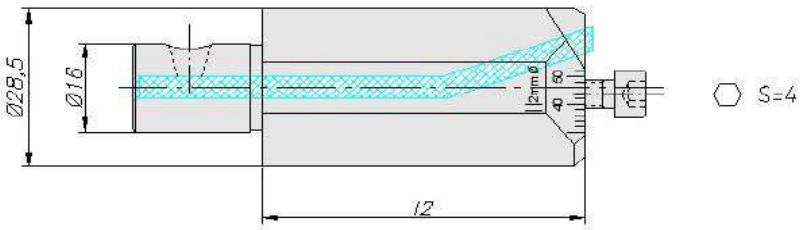
BARRA DE MANDRILAR PARA ACABAMENTO - CAPACIDADE Ø20 a 32mm
BARRES DE MANDRINAR PARA ACABAMENTO - CAPACIDAD Ø20 a 32mm
BORING BARS FOR MICROMETRIC HEAD - CAPACITY Ø20 to 32mm

ØA	L	l1	PESO WEIGTH (Kg)	CÓDIGO CODE				
				CORPO SERRILHADO *CUERPO MOLETADO* TOOL BODY	PORTA INSERTO *PORTA PLAQUITAS* INSERT HOLDERS	EXEC	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
20 - 22 (20 - 24)	**84**	77	0,25	CFM-003	FAM-2022	1	CCMT 0602	**BMA-020**
22 - 24 (22 - 26)			0,25		FAM-2224			**BMA-022**
24 - 26 (24 - 28)			0,25		FAM-2426			**BMA-024**
26 - 28 (26 - 30)			0,30		FAM-2628			**BMA-026**
28 - 30 (28 - 32)			0,30		FAM-2830			**BMA-028**
30 - 32 (30 - 34)			0,30		FAM-3032			**BMA-030**



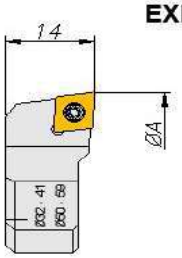


BARRA COMPLETA
BARRA COMPLETA
COMPLETE TOOLS



CORPO SERRILHADO
CUERPO MOLETADO
SERRATED TOOL BODY

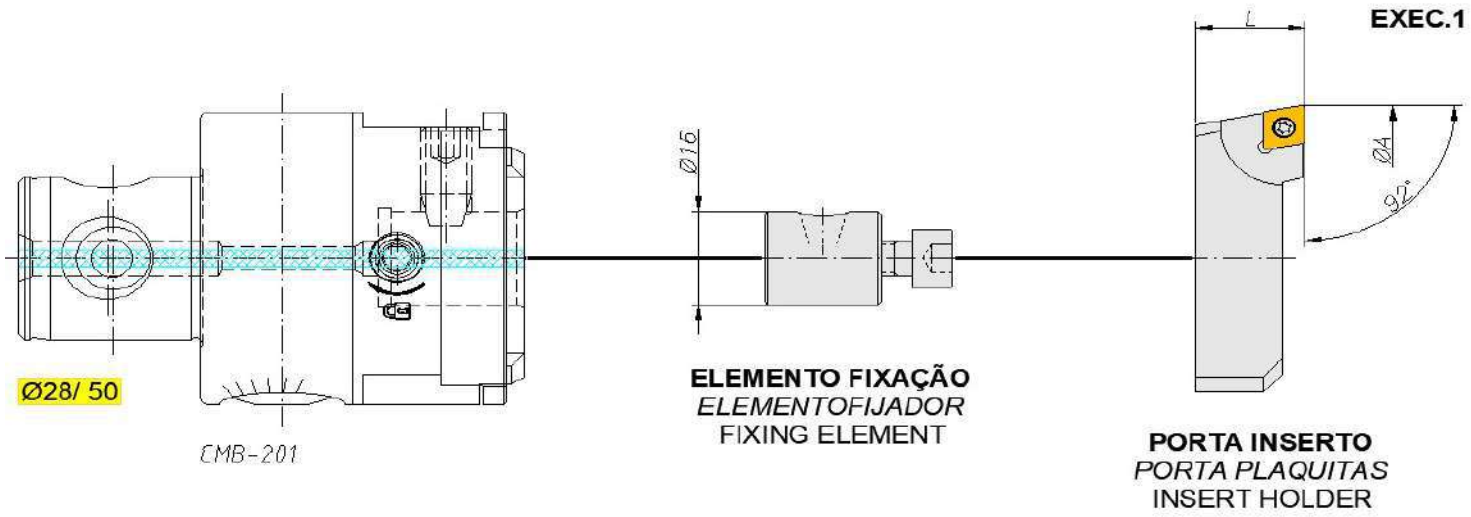
EXEC.1



PORTA INSERTO
PORTA PLAQUITAS
INSERT HOLDER

BARRA DE MANDRILAR PARA ACABAMENTO - CAPACIDADE Ø32 a 52mm
BARRES DE MANDRINAR PARA ACABAMENTO - CAPACIDAD Ø32 a 52mm
BORING BARS FOR MICROMETRIC HEAD - CAPACITY Ø32 to 52mm

ØA	L	l1	l2	PESO WEIGTH (Kg)	CÓDIGO CODE				
					CORPO SERRILHADO *CUERPO MOLETADO* TOOL BODY	PORTA INSERTO *PORTA PLAQUITAS* INSERT HOLDERS	EXEC	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
32 - 43	**66**	64	52	0,20	CFL-001	FAM-3250	1	CCMT 0602	**BMA-032**
	100	98	86	0,30	CFL-002				**BMA-132**
41 - 52	**66**	64	52	0,25	CFL-001	FAM-4159	1	CCMT 0602	**BMA-041**
	100	98	86	0,35	CFL-002				**BMA-141**



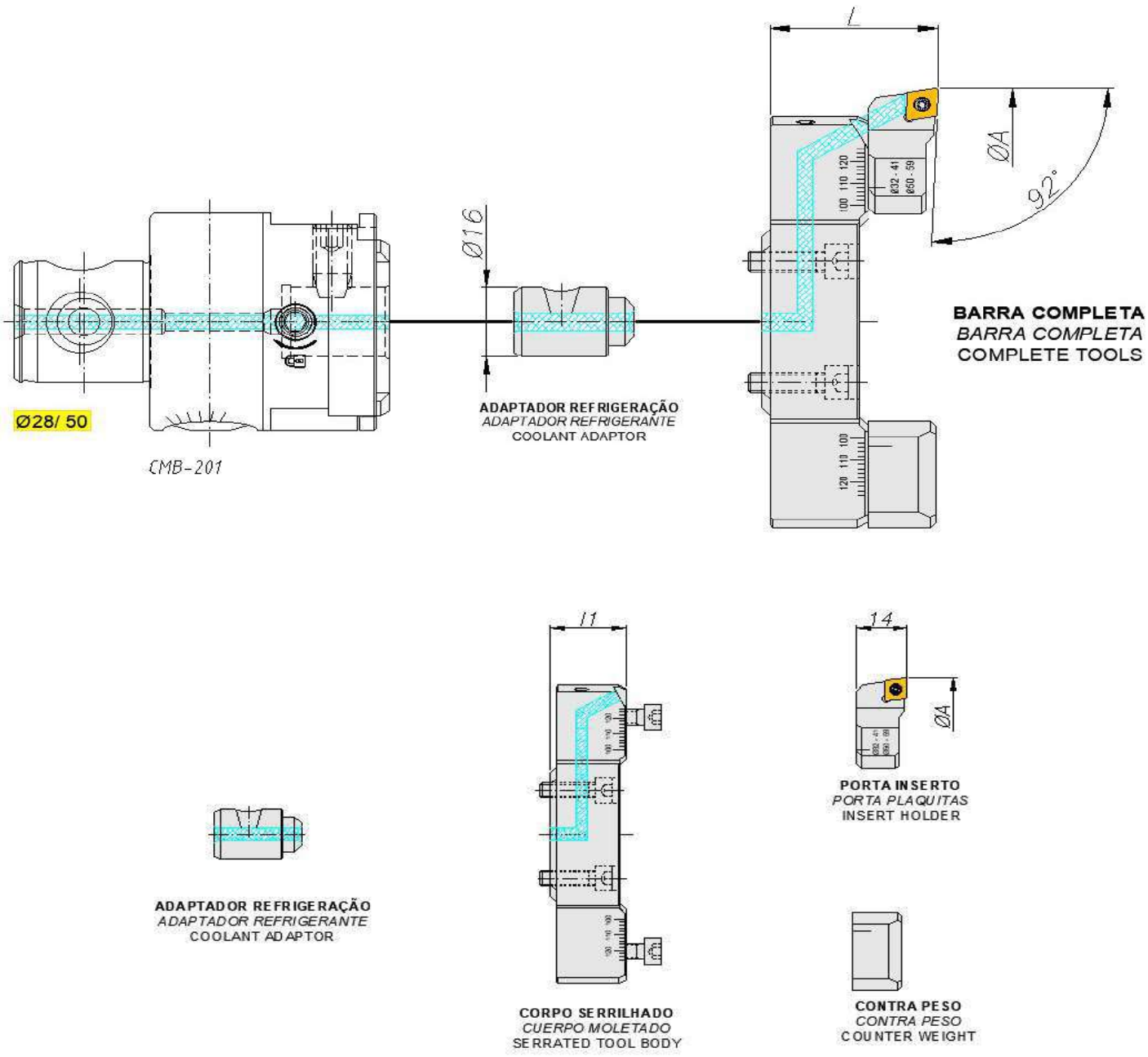
Estes itens não são compativeis para utilização no modelo CMB-301
Esta família não possui passagem de liquido refrigerante
Elemento de fixação 740.01 - Pedido feito em separado

Estos artículos no son compatibles para su uso en el modelo CMB-301
Esta familia no tiene flujo de refrigerante
Elemento de fijación 740.01 - Pedir por separado

These items are not compatible for use on the CMB-301
This family has no coolant flow
Fastening element 740.01 - Order separately

PORTA INSERTO PARA ACABAMENTO - CAPACIDADE Ø52 a 102mm
PORTA PLAQUITAS PARA ACABAMENTO - CAPACIDAD Ø52 a 102mm
INSERT HOLDERS FOR MICROMETRIC HEAD - CAPACITY Ø52 to 102mm

ØA	L	PESO WEIGTH (Kg)	CÓDIGO CODE			
			ELEMENTO FIXAÇÃO *ELEMENTO FIJADOR* FIXING ELEMENT	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	EXEC	PORTA INSERTO *PORTA PLAQUITAS* INSERT HOLDERS
52 - 77	**16**	0,06	740.01	CCMT 0602	1	**BMF-001**
76 - 102	**16**	0,10				**BMF-002**



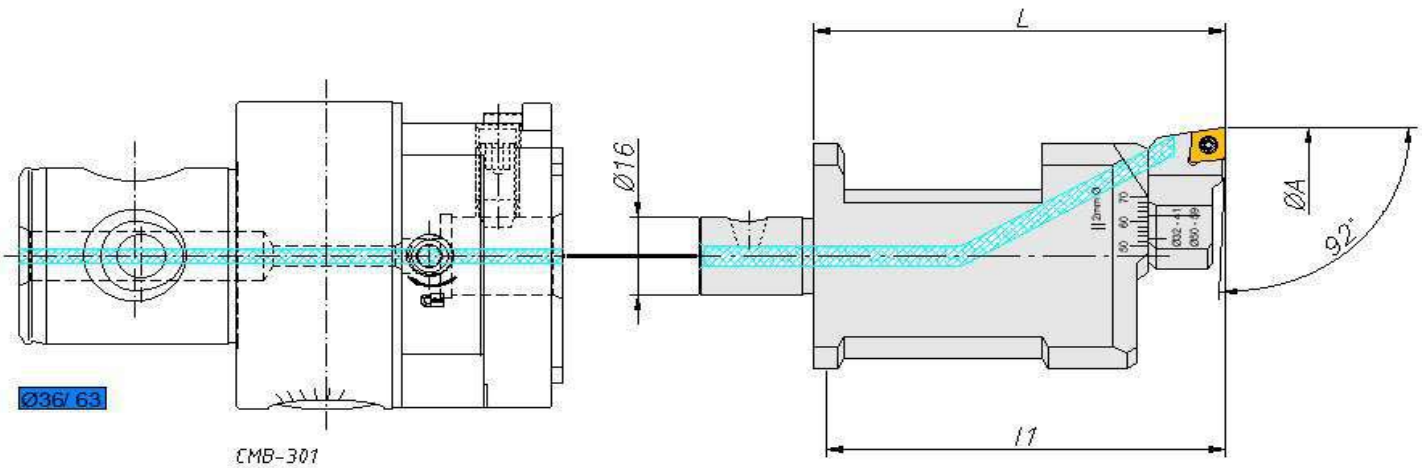
Estes itens não são compativeis para utilização no modelo CMB-301
Adaptador da refrigeração 743.02 - Pedido feito em separado

Estos artículos no son compatibles para su uso en el modelo CMB-301
Adaptador del refrigerante 743.02 - Pedir por separado

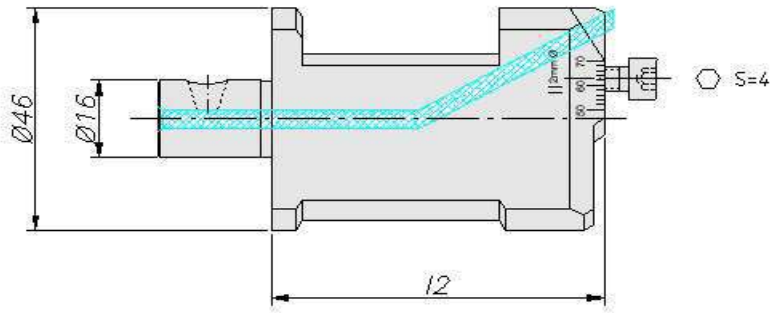
These items are not compatible for use on the CMB-301
Coolant adaptor 743.02 - Order separately

BARRA DE MANDRILAR PARA ACABAMENTO - CAPACIDADE Ø100 a 150mm
BARRES DE MANDRINAR PARA ACABAMENTO - CAPACIDAD Ø100 a 150mm
BORING BARS FOR MICROMETRIC HEAD - CAPACITY Ø100 to 150mm

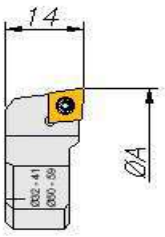
ØA	L	l1	PESO WEIGTH (Kg)	CÓDIGO CODE						
				ADAP REFR *ADAP REFR* COOL ADAPT	CORPO SERRILHADO *CUERPO MOLETADO* TOOL BODY	PORTA INSERTO *PORTA PLAQUITAS* INSERT HOLDER	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	EXEC	CONTRA PESO COUNTER WEIGTH	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
100 - 113	**34**	20	0,25	743.02	CPL-100	FAM-3250	CCMT 0602	1	741.04	**BMA-100**
112 - 125						FAM-4159				**BMA-112**
125 - 138	**34**	20	0,30	743.02	CPL-125	FAM-3250	CCMT 0602	1	741.04	**BMA-125**
137 - 150						FAM-4159				**BMA-137**



BARRA COMPLETA
BARRA COMPLETA
COMPLETE TOOLS



CORPO SERRILHADO
CUERPO MOLETADO
SERRATED TOOL BODY

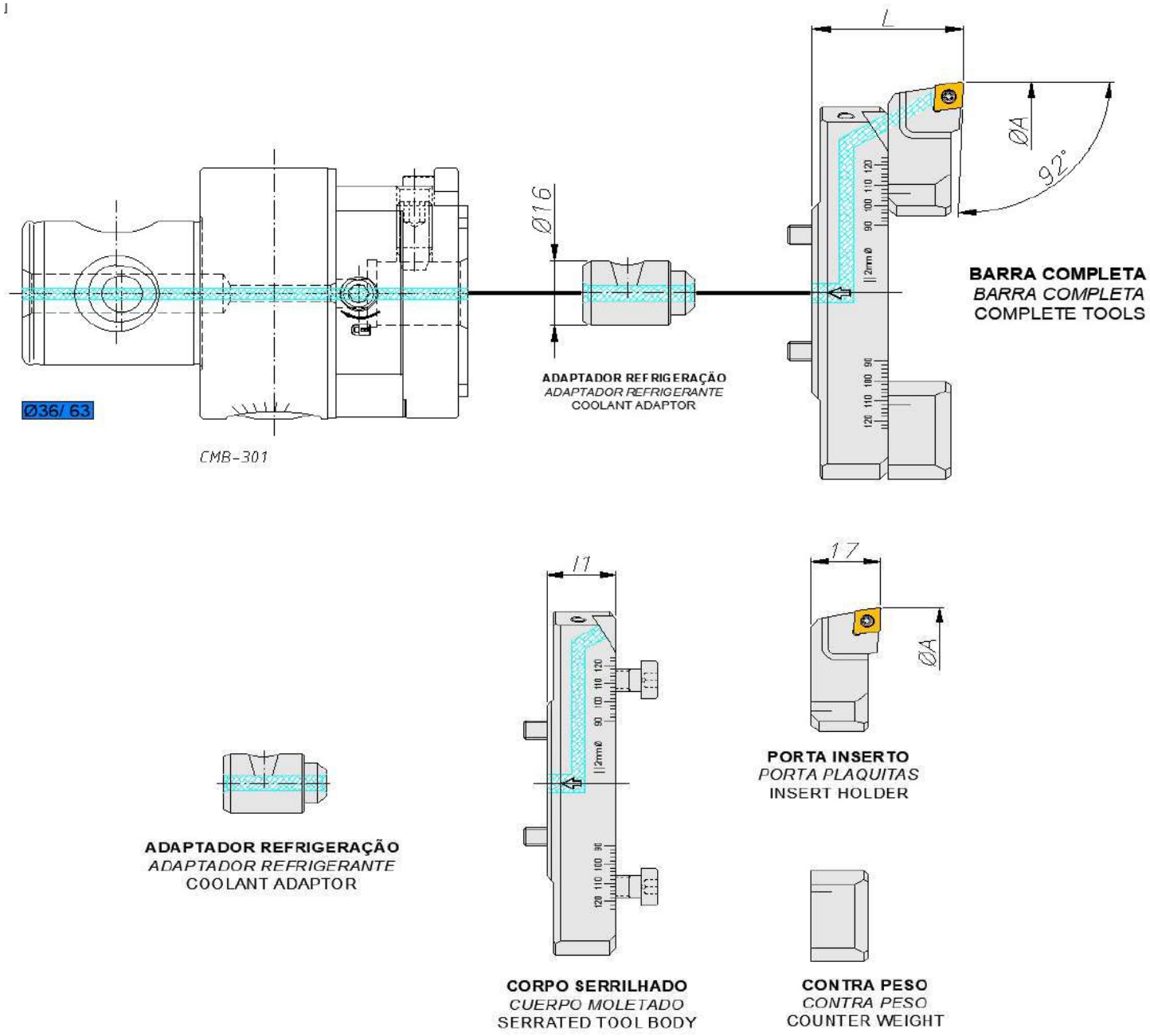


PORTA INSERTO
PORTA PLAQUITAS
INSERT HOLDER

Não recomendado a utilização destes itens no cabeçote modelo CMB-201
No se recomienda utilizar estos elementos en el modelo de cabezale CMB-201
It is not recommended to use these items on the head model CMB-201

BARRA DE MANDRILAR PARA ACABAMENTO - CAPACIDADE Ø50 a 68mm
BARRES DE MANDRINAR PARA ACABAMENTO - CAPACIDAD Ø50 a 68mm
BORING BARS FOR MICROMETRIC HEAD - CAPACITY Ø50 to 68mm

ØA	L	l1	l2	PESO WEIGTH (Kg)	CÓDIGO CODE				
					CORPO SERRILHADO *CUERPO MOLETADO* TOOL BODY	PORTA INSERTO *PORTA PLAQUITAS* INSERT HOLDERS	EXEC	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
50 - 59	**75**	72	61	0,30	CFL-003	FAM-3250	1	CCMT 0602	**BMA-050**
	100	97	86	0,40	CFL-004				**BMA-150**
59 - 68	**75**	72	61	0,35	CFL-003	FAM-4159	1	CCMT 0602	**BMA-059**
	100	97	86	0,45	CFL-004				**BMA-159**



Estes itens não são compativeis para utilização no modelo CMB-201
Adaptador da refrigeração 743.02 - Pedido feito em separado

Estos artículos no son compatibles para su uso en el modelo CMB-201
Adaptador del refrigerante 743.02 - Pedir por separado

These items are not compatible for use on the CMB-201
Coolant adaptor 743.02 - Order separately

BARRA DE MANDRILAR PARA ACABAMENTO - CAPACIDADE Ø68 a 208mm
BARRES DE MANDRINAR PARA ACABAMENTO - CAPACIDAD Ø68 a 208mm
BORING BARS FOR MICROMETRIC HEAD - CAPACITY Ø68 to 208mm

ØA	L	l1	PESO WEIGTH (Kg)	CÓDIGO CODE						
				ADAP REFR *ADAP REFR* COOL ADAPT	CORPO SERRILHADO *CUERPO MOLETADO* TOOL BODY	PORTA INSERTO *PORTA PLAQUITAS* INSERT HOLDER	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	EXEC	CONTRA PESO COUNTER WEIGTH	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
68 - 96	33	16	0,25	743.02	CPL-068	FAM-6808	CCMT 0602	1	741.03	BMA-068
96 - 124			0,28		CPL-096					BMA-096
124 - 152			0,30		CPL-124					BMA-124
152 - 180	39	22	0,35	743.02	CPL-152	FAM-6808	CCMT 0602	1	741.03	BMA-152
180 - 208			0,40		CPL-180					BMA-180



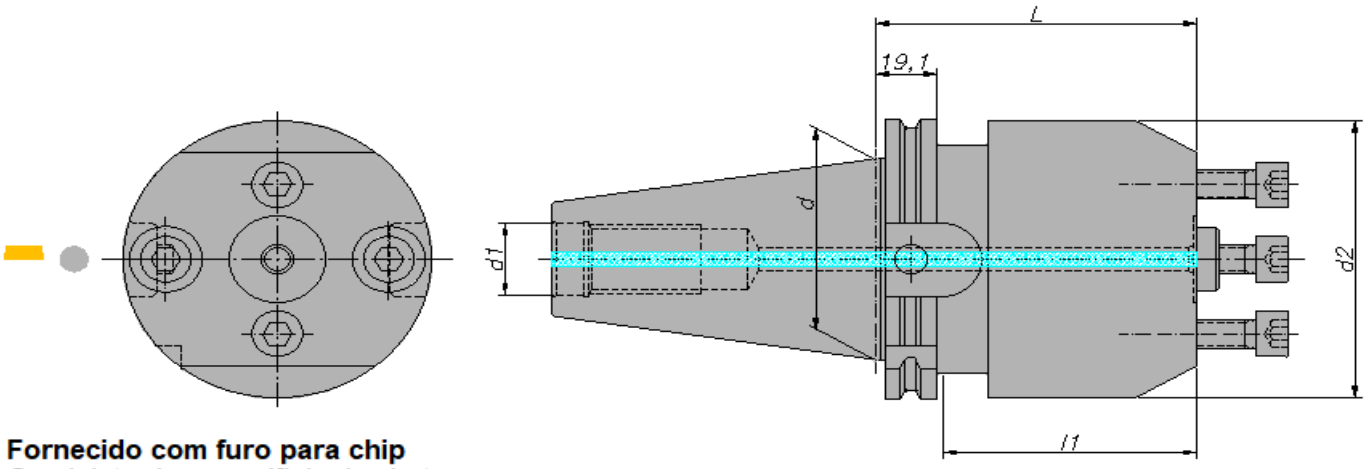
KIT MANDRILAMENTO MICROMÉTRICO CABEÇOTE CMB-201
KIT DE MANDRINADO DEL CABEZALE MICROMÉTRICO CMB-201
FINE BORING HEAD CMB-201 MICROMETRIC KIT

CONEXÃO *CONEXIÓN* CONNECTION		**28/50**		**28/50**		**28/50**	
CÓDIGO *CÓDIGO* CODE		**KIT28-1032**		**KIT28-10102**		**KIT28-10150**	
CAPACACIDADE *CAPACIDAD* RANGE	**ØA**	**Ø10 - 32**		**Ø10 - 102**		**Ø10 - 150**	
CABEÇOTE MICROMÉTRICO *CABEZALE DE PRECISION* FINE BORING TOOLS	**3 - 150**	**CMB-201**		**CMB-201**		**CMB-201**	
BARRA DE MANDRILAR *BARRES DE MANDRINAR* BORING BARS	**10 - 12** (10 - 15)	BMA-001		BMA-001		BMA-001	
	15 - 17 (15 - 20)	BMA-002		BMA-002		BMA-002	
CORPO SERRILHADO / PORTA INSERTO *CUERPO MOLETEADO / PORTA PLAQUITAS* SERRATED TOOL BODY / INSERT HOLDER	**20 - 22** (20 - 24)	CFM-003	FAM-2022	CFM-003	FAM-2022	CFM-003	FAM-2022
	24 - 26 (24 - 28)		FAM-2426		FAM-2426		FAM-2426
	28 - 30 (28 - 32)		FAM-2830		FAM-2830		FAM-2830
CORPO SERRILHADO / PORTA INSERTO *CUERPO MOLETEADO / PORTA PLAQUITAS* SERRATED TOOL BODY / INSERT HOLDER	**32 - 43**	-	-	CFL-001	FAM-3250	CFL-001	FAM-3250
	41 - 52		-		FAM-4159		FAM-4159
PORTA INSERTO *PORTA PLAQUITAS* *INSERT HOLDER*	**52 - 77**	-		BMF-001		BMF-001	
	76 - 102	-		BMF-002		BMF-002	
ELEMENTO FIXAÇÃO *ELEMENTO FIJADOR* FIXING ELEMENT	**52 - 102**	-		740.01		740.01	
CORPO SERRILHADO *CUERPO MOLETEADO* *SERRATED SLIDES*	**100 - 125**	-		-		CPL-100	
	125 - 150	-		-		CPL-125	
CONTRA-PESO *CONTRAPESO* COUNTER WEIGHT	**100 - 150**	-		-		741.04	
ADAPTADOR REFRIGERAÇÃO *ADAPTADOR DEL REFRIGERANTE* *COOLANT ADAPTOR*	**100 - 150**	-		-		743.02	
CHAVES DE TRABALHO *TRABAJO CLAVE* KEY WORKING	**Torx T7**	438.T7		438.T7		438.T7	
	S4	438.S4		438.S4		438.S4	
PESO *WEIGHT*	-	3,4		4,0		4,7	



KIT MANDRILAMENTO MICROMÉTRICO CABEÇOTE CMB-301
KIT DE MANDRINADO DEL CABEZALE MICROMÉTRICO CMB-301
FINE BORING HEAD CMB-301 MICROMETRIC KIT

CONEXÃO *CONEXIÓN* CONNECTION		**36/63**		**36/63**		**36/63**	
CÓDIGO *CÓDIGO* CODE		**KIT36-6.124**		**KIT36-6.208**		**KIT36-96.208**	
CAPACACIDADE *CAPACIDAD* RANGE	**ØA**	**Ø6 - 124**		**Ø6 - 208**		**Ø96 - 208**	
CABEÇOTE MICROMÉTRICO *CABEZALE DE PRECISION* FINE BORING TOOLS	**3 - 208**	**CMB-301**		**CMB-301**		**CMB-301**	
BARRA DE MANDRILAR *BARRES DE MANDRINAR* BORING BARS	**6 - 8** (6 - 10)	BMW-001		BMW-001		-	
	8 - 10 (8 - 12)	BMW-002		BMW-002		-	
	10 - 12 (10 - 15)	BMA-001		BMA-001		-	
	15 - 17 (15 - 20)	BMA-002		BMA-002		-	
CORPO SERRILHADO / PORTA INSERTO *CUERPO MOLETEADO / PORTA PLAQUITAS* SERRATED TOOL BODY / INSERT HOLDER	**20 - 22** (20 - 24)	CFM-003	FAM-2022	CFM-003	FAM-2022	-	-
	24 - 26 (24 - 28)		FAM-2426		FAM-2426		-
	28 - 30 (28 - 32)		FAM-2830		FAM-2830		-
CORPO SERRILHADO / PORTA INSERTO *CUERPO MOLETEADO / PORTA PLAQUITAS* SERRATED TOOL BODY / INSERT HOLDER	**32 - 43**	CFL-001	FAM-3250	CFL-001	FAM-3250	-	-
	41 - 52						-
	50 . 59	CFL-003	FAM-4159	CFL-003	FAM-4159	-	-
	59 - 68						-
CORPO SERRILHADO / PORTA INSERTO *CUERPO MOLETEADO / PORTA PLAQUITAS* SERRATED TOOL BODY / INSERT HOLDER	**68 - 96**	CPL-068	FAM-6808	CPL-068	FAM-6808	-	-
	96 - 124	CPL-096		CPL-096		CPL-096	FAM-6808
	124 - 152	-	-	CPL-124		CPL-124	
	152 - 180	-		CPL-152		CPL-152	
	180 - 208	-		CPL-180		CPL-180	
CONTRA-PESO *CONTRAPESO* COUNTER WEIGHT	**68 - 208**	741.03		741.03		741.03	
ADAPTADOR REFRIGERAÇAO *ADAPTADOR DEL REFRIGERANTE* *COOLANT ADAPTOR*	**68 - 208**	743.02		743.02		743.02	
CHAVES DE TRABALHO *TRABAJO CLAVE* KEY WORKING	**Torx T6**	438.T6		438.T6		-	
	Torx T7	438.T7		438.T7		438.T7	
	S4	438.S4		438.S4		438.S4	
PESO *WEIGHT*	-	5,4		6,3		5,0	

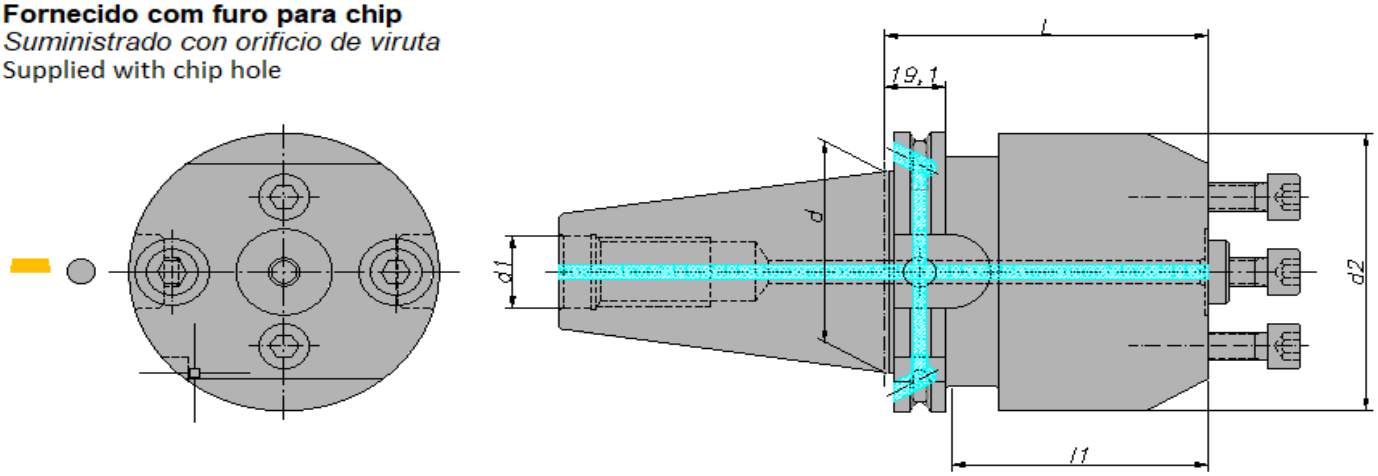


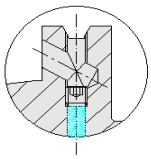
* **Fornecido com furo para chip**
* *Suministrado con orificio de viruta*
* Supplied with chip hole

CONE BÁSICO - DIN 69871 - AD
CONO BÁSICO - DIN 69871 - AD
BASIC SHANK - DIN 69871 - AD

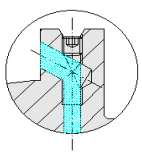
CÓDIGO CODE	ØA	ISO	CONEXÃO	d	d1	d2	L	l1	PESO WEIGTH (Kg)
50.012.101.97	200 - 505	50		69,85	M24	97	**101**	80	6,8
50.012.191.97							**191**	170	11,9
50.012.256.97							**256**	235	15,8
50.012.341.97							**341**	320	19,9

* **Fornecido com furo para chip**
* *Suministrado con orificio de viruta*
* Supplied with chip hole





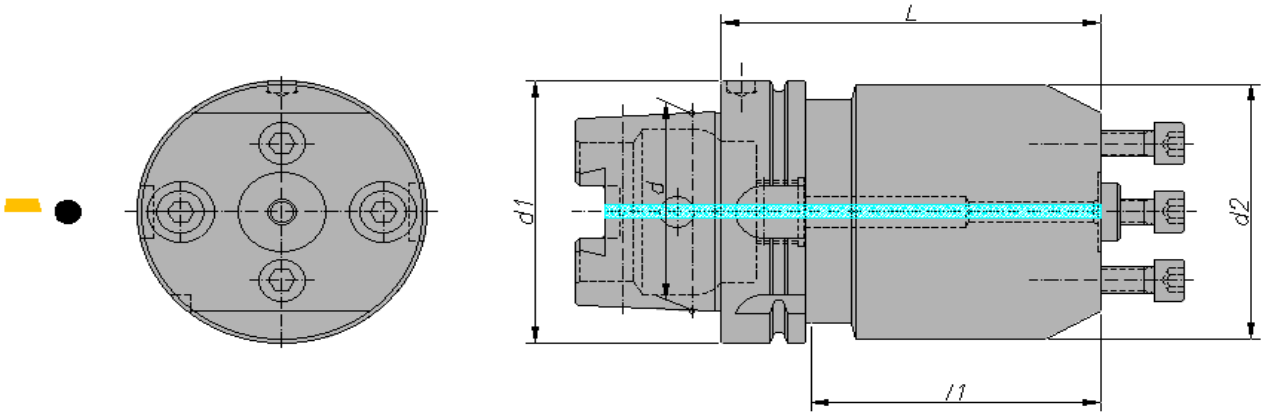
* **Refrigeração pelo centro**
* *Refrigeración por el centro*
* Center cooling



* **Refrigeração pelo flange**
* *Refrigeración por el brida*
* Flange cooling

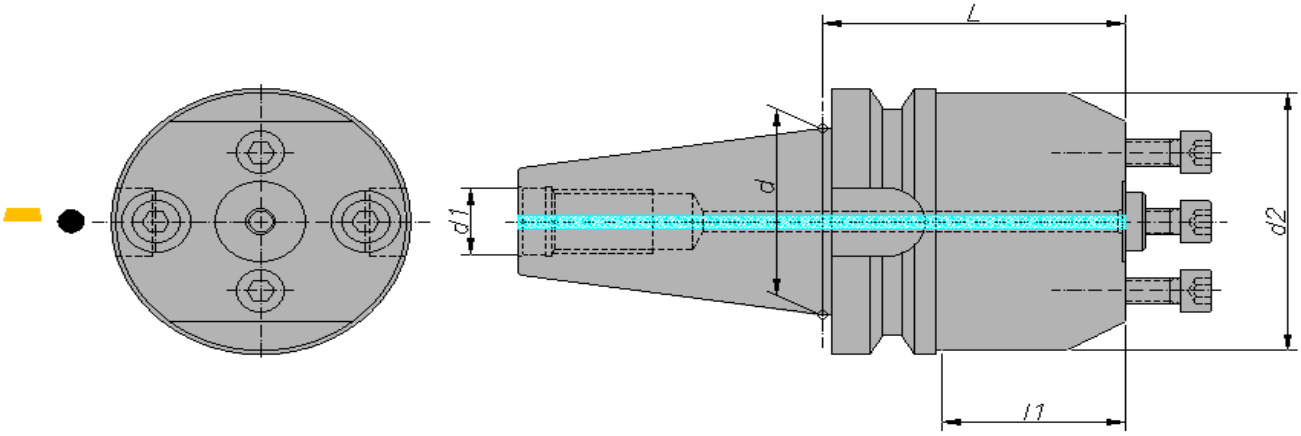
CONE BÁSICO - DIN 69871 - AD + B (HÍBRIDO)
CONO BÁSICO - DIN 69871 - AD + B (HÍBRIDO)
BASIC SHANK - DIN 69871 - AD + B (HYBRID)

CÓDIGO CODE	ØA	ISO	CONEXÃO	d	d1	d2	L	l1	PESO WEIGTH (Kg)
50.013.101.97	200 - 505	50		69,85	M24	97	**101**	80	6,8
50.013.191.97							**191**	170	11,9
50.013.256.97							**256**	235	15,8
50.013.341.97							**341**	320	19,9



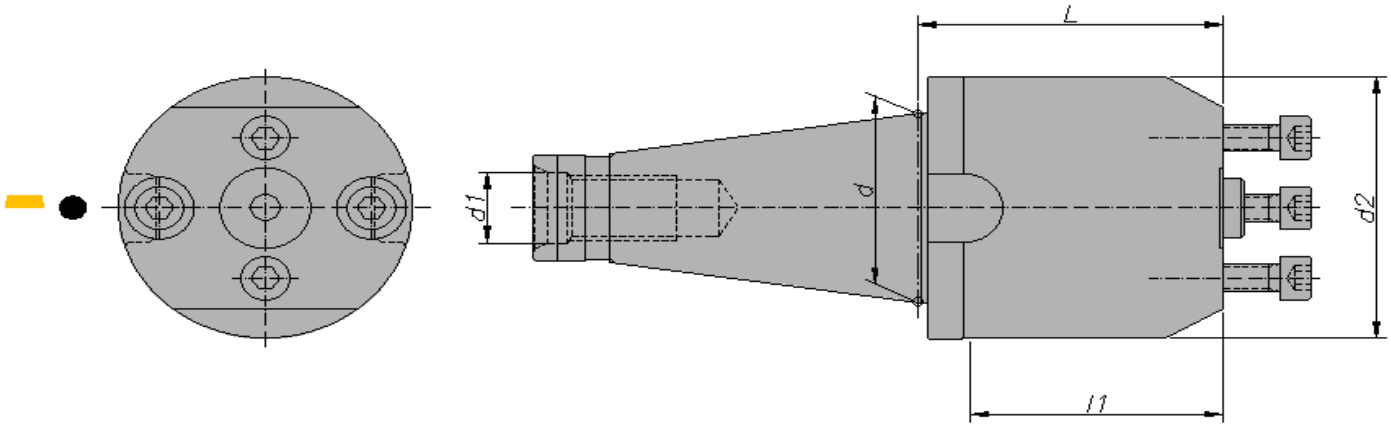
CONE BÁSICO - HSK-A/C - DIN 69893
CONO BÁSICO - HSK-A/C - DIN 69893
HSK-A/C BASIC SHANK - DIN 69893

CÓDIGO CODE	ØA	HSK-A/C	CONEXÃO	d	d1	d2	L	l1	PESO WEIGTH (Kg)
80.812.108.97	200 - 505	80		60	80	97	**108**	80	5,7
10.812.111.97		100		75	100		**111**	80	6,5



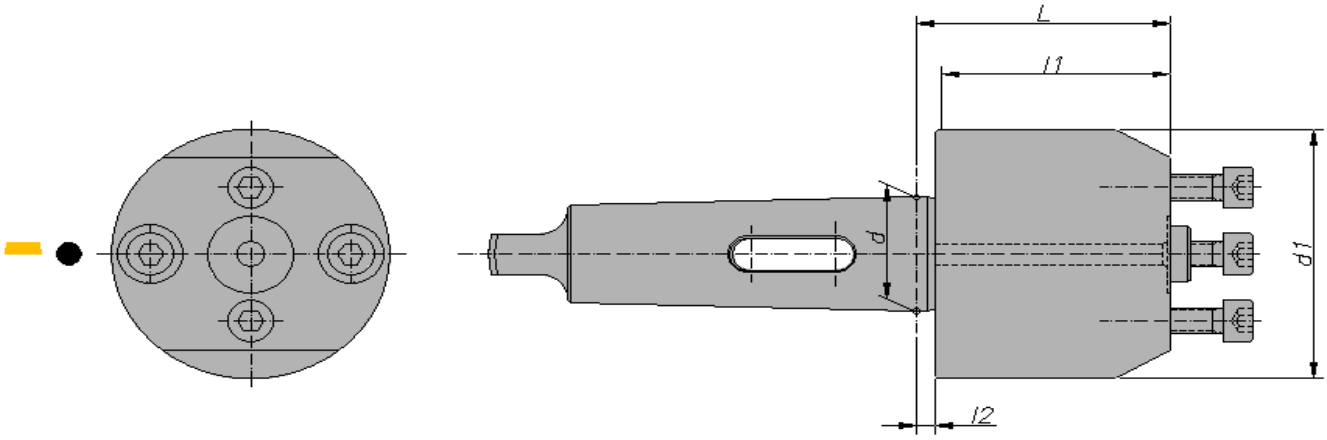
CONE BÁSICO - MAS 403 - BT
CONO BÁSICO - MAS 403 - BT
BASIC SHANK - MAS 403 - BT

CÓDIGO CODE	ØA	BT	CONEXÃO	d	d1	d2	L	l1	PESO WEIGTH (Kg)
50.018.120.97	200 - 505	50		69,85	M24	97	**120**	80	6,9
50.018.210.97							**210**	170	12,0
50.018.275.97							**275**	235	15,9
50.018.360.97							**360**	320	22,0



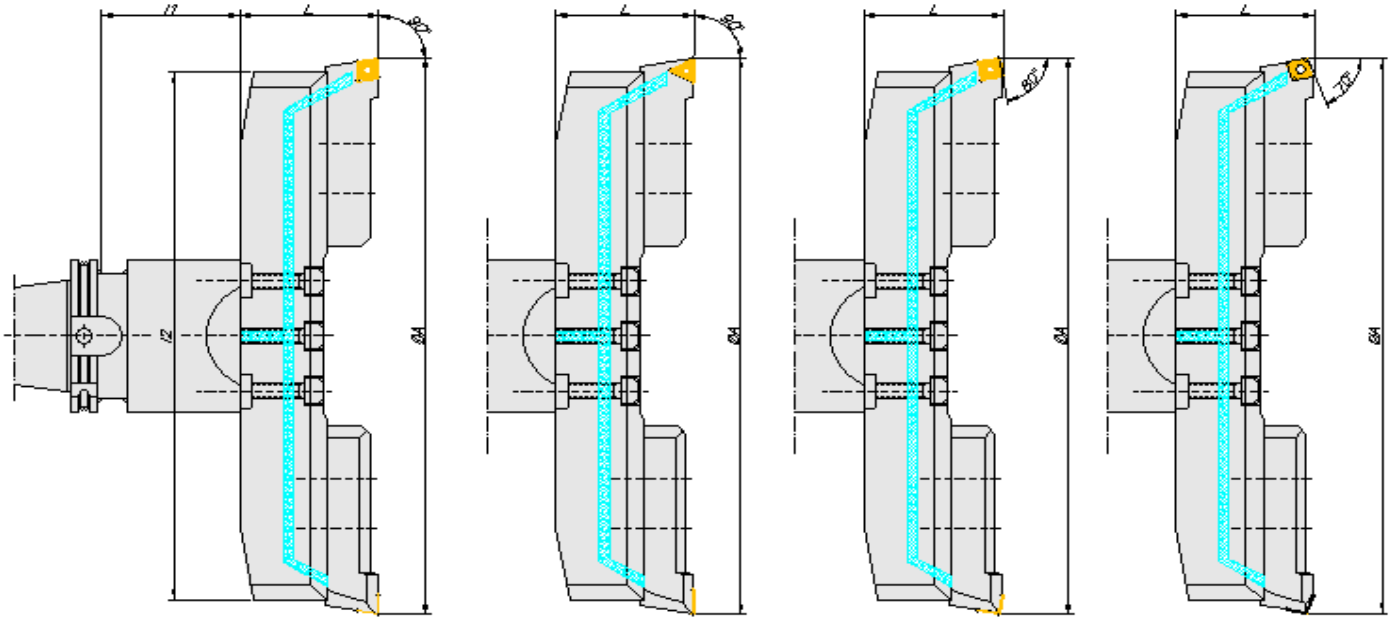
CONE BÁSICO - DIN-2080
CONO BÁSICO - DIN-2080
BASIC SHANK - DIN-2080

CÓDIGO CODE	**ØA**	**ISO**	**CONEXÃO**	**d**	**d1**	**d2**	**L**	**l1**	**PESO** WEIGTH **(Kg)**
50.611.101.97	200 - 505	50		69,85	M24	97	**101**	95	7,2
50.611.191.97							**191**	185	12,3
50.611.256.97							**256**	250	16,2
50.611.341.97							**341**	335	22,3



CONE BÁSICO - DIN-228-B
CONO BÁSICO - DIN-228-B
BASIC SHANK - DIN-228-B

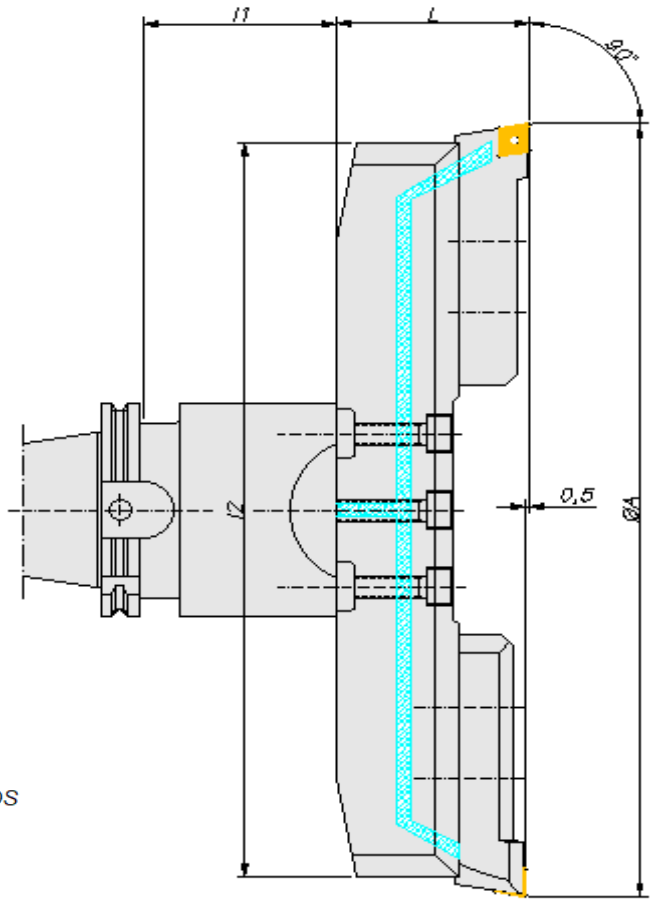
CÓDIGO CODE	**ØA**	**CONE MORSE**	**CONEXÃO**	**d**	**d1**	**L**	**l1**	**l2**	**PESO** WEIGTH **(Kg)**
05.207.090.97	200 - 505	5		44,399	97	**90**	82	6,5	6,5
05.207.180.97						**180**	172		10,7
06.207.090.97		6		63,348		**90**	80	8	6,7
06.207.180.97						**180**	170		10,9



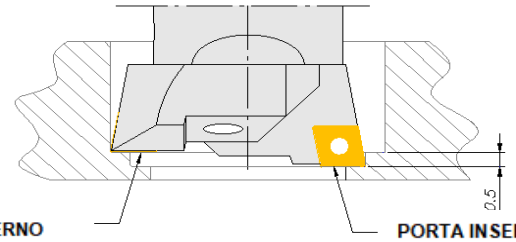
I1 = VIDE PÁGINAS DE CONE BÁSICO
I1 = VER PÁGINAS DE CONOS BÁSICOS
I1 = SEE BASIC CONE PAGES

CABEÇOTE DE MANDRILAR DESBASTE 2 CORTES - CAPACIDADE Ø200 a 505mm
CABEZALE DE MANDRINADO DESBASTE 2 CORTES - CAPACIDAD Ø200 a 505mm
ROUGH BORING HEAD 2 CUTTERS - CAPACITY Ø200 to 505mm

ØA	CONEXÃO	L	I2	PESO WEIGTH (Kg)	CÓDIGO CODE				
					CORPO SERRILHADO *CUERPO MOLETADO* TOOL BODY	PORTA INSERTO *PORTA PLAQUITAS* INSERT HOLDERS	EXEC	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
200 - 280		80	188	5,1	CPD-011	FDA-010	1	CCMT 1204	**MDJ-001**
						FDA-020	1	CCMT 1605	**MDJ-011**
						FDC-010	2	TCMT 16T3	**MDG-001**
						FDD-010	3	SCMT 1204	**MDH-001**
						FDA-110	4	CCMT 1204	**MDJ-101**
						FDA-120	4	CCMT 1605	**MDJ-111**
275 - 355			261	7,0	CPD-012	FDA-010	1	CCMT 1204	**MDJ-002**
						FDA-020	1	CCMT 1605	**MDJ-012**
						FDC-010	2	TCMT 16T3	**MDG-002**
						FDD-010	3	SCMT 1204	**MDH-002**
						FDA-110	4	CCMT 1204	**MDJ-102**
						FDA-120	4	CCMT 1605	**MDJ-112**
350 - 430			336	9,0	CPD-013	FDA-010	1	CCMT 1204	**MDJ-003**
						FDA-020	1	CCMT 1605	**MDJ-013**
						FDC-010	2	TCMT 16T3	**MDG-003**
						FDD-010	3	SCMT 1204	**MDH-003**
						FDA-110	4	CCMT 1204	**MDJ-103**
						FDA-120	4	CCMT 1605	**MDJ-113**
425 - 505			411	11,0	CPD-014	FDA-010	1	CCMT 1204	**MDJ-004**
						FDA-020	1	CCMT 1605	**MDJ-014**
						FDC-010	2	TCMT 16T3	**MDG-004**
						FDD-010	3	SCMT 1204	**MDH-004**
						FDA-110	4	CCMT 1204	**MDJ-104**
						FDA-120	4	CCMT 1605	**MDJ-114**



l1 = VIDE PÁGINAS DE CONE BÁSICO
l1 = VER PÁGINAS DE CONOS BÁSICOS
l1 = SEE BASIC CONE PAGES



PORTA INSERTO EXTERNO
PORTA PLAQUITA EXTERNO
INSERT HPLDER EXTERNAL

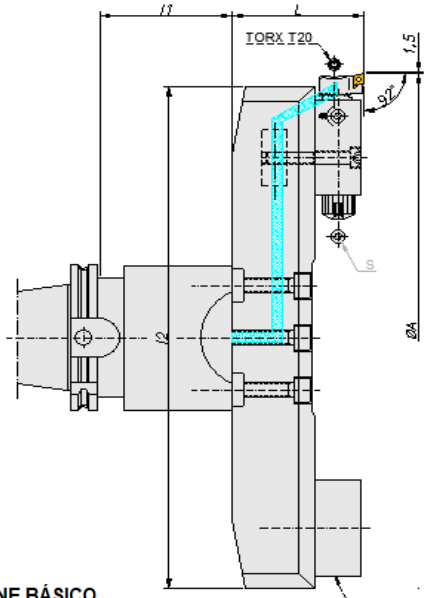
PORTA INSERTO CENTRAL
PORTA PLAQUITA CENTRAL
INSERT HPLDER CENTRAL

CABEÇOTE DE MANDRILAR DESBASTE ESCALONADO 2 CORTES - CAPACIDADE Ø200 a 505mm
CABEZALE DE MANDRINADO DESBASTE ESCALONADO 2 CORTES - CAPACIDAD Ø200 a 505mm
STEP ROUGH BORING HEAD 2 CUTTERS - CAPACITY Ø200 to 505mm

ØA	CONEXÃO	L	l2	PESO WEIGTH (Kg)	CÓDIGO CODE					
					CORPO SERRILHADO *CUERPO MOLETADO* TOOL BODY	PORTA INSERTO CENTRAL *PORTA PLAQUITA CENTRAL* INSERT HOLDER CENTRAL	PORTA INSERTO EXTERNO *PORTA PLAQUITA EXTERNO* INSERT HOLDER EXTERNAL	EXEC	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
200 - 280		80	188	5,1	CPD-011	FDA-010	FDA-010A	1	CCMT 1204	**MDJ-201**
						FDA-020	FDA-020A		CCMT 1605	**MDJ-211**
275 - 355			261	7,0	CPD-012	FDA-010	FDA-010A	1	CCMT 1204	**MDJ-202**
						FDA-020	FDA-020A		CCMT 1605	**MDJ-212**
350 - 430			336	9,0	CPD-013	FDA-010	FDA-010A	1	CCMT 1204	**MDJ-203**
						FDA-020	FDA-020A		CCMT 1605	**MDJ-213**
425 - 505			411	11,0	CPD-014	FDA-010	FDA-010A	1	CCMT 1204	**MDJ-204**
						FDA-020	FDA-020A		CCMT 1605	**MDJ-214**

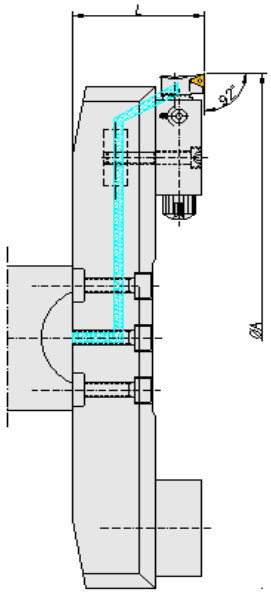
REGULAGEM MICROMÉTRICA (mm) *REGULACIÕN MICROMETRICA (mm)* FINE ADJUSTMENT (mm)	= 0,20Ø = 0,01Ø

CURSO MÁXIMO (mm) *RECORRIDO MÁXIMO (mm)* FINE STROKE (mm)	1,5 (r) 3,0 (Ø)

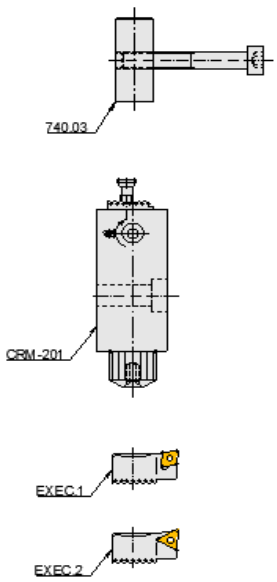


Exec. 1

CONTRA PESO CÓD.741.01
CONTRA PESO CÓD.741.01
COUNTER WEIGHT CÓD.741.01



Exec. 2

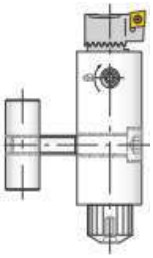


l1 = VIDE PÁGINAS DE CONE BÁSICO
l1 = VER PÁGINAS DE CONOS BÁSICOS
l1 = SEE BASIC CONE PAGES

CABEÇOTE MICROMÉTRICO - CAPACIDADE Ø200 a 505mm
CABEZALE DE PRECISION - CAPACIDAD Ø200 a 505mm
FINE BORING TOOLS - CAPACITY Ø200 to 505mm

ØA	CONEXÃO	L	l2	S	PESO WEIGTH (Kg)	CÓDIGO CODE CORPO SERRILHADO *CUERPO MOLETADO* TOOL BODY	ELEMENTO FIXAÇÃO ELEMENTO FIJACIÓN CLAMPING ELEMENT	CORPO MICROMÉTRICO *CUERPO DE PRECISION* PRECISION BORING TOOLS	PORTA INSERTO *PORTA PLAQUITAS* INSERT HOLDERS	EXEC	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
200-280		80	188	4	5,1	CPD-011	740.03	CRM-201	FMA-013	1	CCMT 0602	**CMD-001**
									FMA-023		CCMT 09T3	**CMD-021**
									FMC-013	2	TCMT 0902	**CMD-011**
									FMC-023		TCMT 1102	**CMD-031**
275-355			261		7,0	CPD-012	740.03	CRM-201	FMA-013	1	CCMT 0602	**CMD-002**
									FMA-023		CCMT 09T3	**CMD-022**
									FMC-013	2	TCMT 0902	**CMD-012**
									FMC-023		TCMT 1102	**CMD-032**
350-430			336		9,0	CPD-013	740.03	CRM-201	FMA-013	1	CCMT 0602	**CMD-003**
									FMA-023		CCMT 09T3	**CMD-023**
									FMC-013	2	TCMT 0902	**CMD-013**
									FMC-023		TCMT 1102	**CMD-033**
425-505			411		11,0	CPD-014	740.03	CRM-201	FMA-013	1	CCMT 0602	**CMD-004**
									FMA-023		CCMT 09T3	**CMD-024**
									FMC-013	2	TCMT 0902	**CMD-014**
									FMC-023		TCMT 1102	**CMD-034**

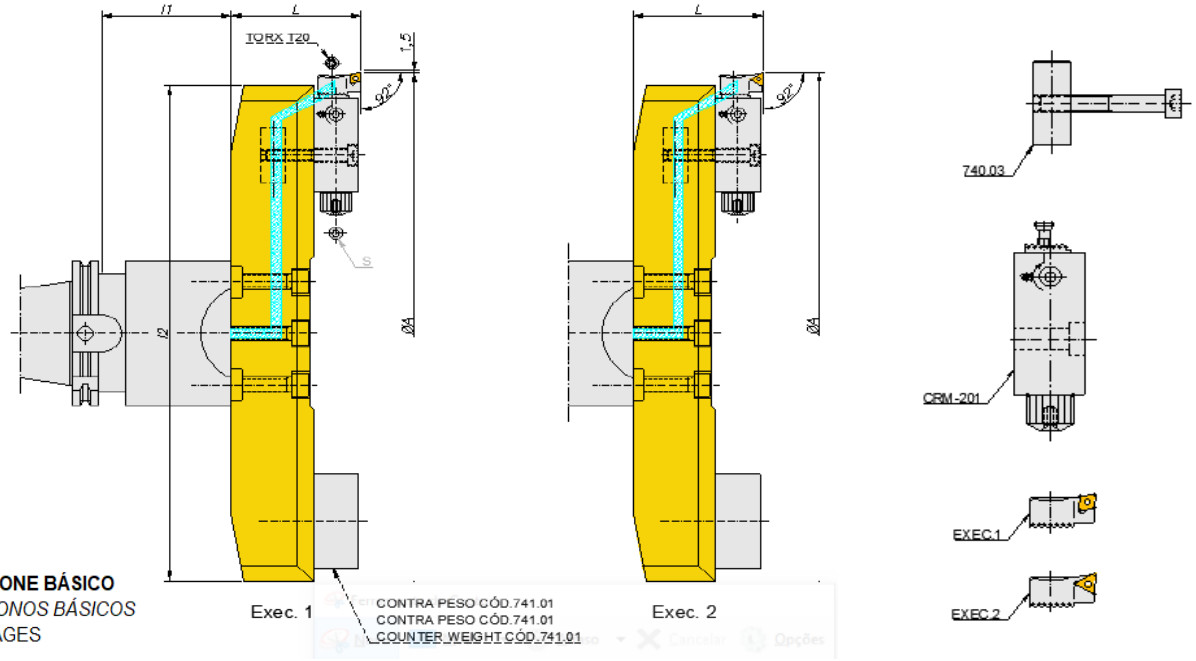
CARTUCHO MICROMÉTRICO - CAPACIDADE Ø200 a 505mm
CUERPO DE PRECISION - CAPACIDAD Ø200 a 505mm
PRECISION BORING TOOLS - CAPACITY Ø200 to 505mm



ØA	PESO WEIGTH (Kg)	CÓDIGO CODE CORPO MICROMÉTRICO *CUERPO DE PRECISION* PRECISION BORING TOOLS	ELEMENTO FIXAÇÃO *ELEMENTO FIJACIÓN* CLAMPING ELEMENT	PORTA INSERTO *PORTA PLAQUITA* INSERT HOLDER	EXEC	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
200 - 505	0,5	CRM-201	740.03	FMA-013	1	CCMT 0602	**CRM-204**
				FMA-023		CCMT 09T3	**CRM-214**
				FMC-013	2	TCMT 0902	**CRM-205**
				FMC-023		TCMT 1102	**CRM-215**

REGULAGEM MICROMÉTRICA (mm) *REGULACIÓN MICROMETRICA (mm)* FINE ADJUSTMENT (mm)	= 0,20Ø = 0,01Ø

CURSO MÁXIMO (mm) *RECORRIDO MÁXIMO (mm)* FINE STROKE (mm)	1,5 (r) 3,0 (Ø)

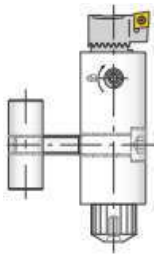


I1 = VIDE PÁGINAS DE CONE BÁSICO
I1 = VER PÁGINAS DE CONOS BÁSICOS
I1 = SEE BASIC CONE PAGES

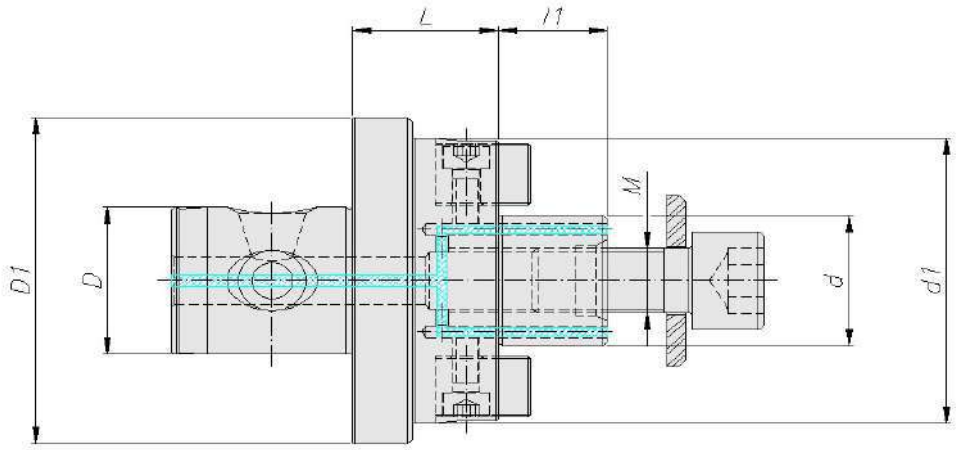
CABEÇOTE MICROMÉTRICO - CORPO ALUMÍNIO - CAPACIDADE Ø200 a 505mm
CABEZALE DE PRECISION - CUERPO ALUMINIO - CAPACIDAD Ø200 a 505mm
FINE BORING TOOLS - ALUMINIUM BODY - CAPACITY Ø200 to 505mm

ØA	CONEXÃO	L	I2	S	PESO WEIGTH (Kg)	CÓDIGO CODE						
						CORPO SERRILHADO *CUERPO MOLETADO* TOOL BODY	ELEMENTO ELEMENTO CLAMPING	CORPO MICROMÉTRIC *CUERPO DE PRECISION* PRECISION BORING TOOLS	PORTA INSERTO *PORTA PLAQUITAS* INSERT HOLDERS	EXEC	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
200-280		80	192	4	2,6	CPL-011	740.03	CRM-201	FMA-013	1	CCMT 0602	**CML-001**
									FMA-023		CCMT 09T3	**CML-021**
									FMC-013	2	TCMT 0902	**CML-011**
									FMC-023		TCMT 1102	**CML-031**
275-355			265		3,5	CPL-012	740.03	CRM-201	FMA-013	1	CCMT 0602	**CML-002**
									FMA-023		CCMT 09T3	**CML-022**
									FMC-013	2	TCMT 0902	**CML-012**
									FMC-023		TCMT 1102	**CML-032**
350-430			340		4,5	CPL-013	740.03	CRM-201	FMA-013	1	CCMT 0602	**CML-003**
									FMA-023		CCMT 09T3	**CML-023**
									FMC-013	2	TCMT 0902	**CML-013**
									FMC-023		TCMT 1102	**CML-033**
425-505			415		6,0	CPL-014	740.03	CRM-201	FMA-013	1	CCMT 0602	**CML-004**
									FMA-023		CCMT 09T3	**CML-024**
									FMC-013	2	TCMT 0902	**CML-014**
									FMC-023		TCMT 1102	**CML-034**

CARTUCHO MICROMÉTRICO - CAPACIDADE Ø200 a 505mm
CUERPO DE PRECISION - CAPACIDAD Ø200 a 505mm
PRECISION BORING TOOLS - CAPACITY Ø200 to 505mm

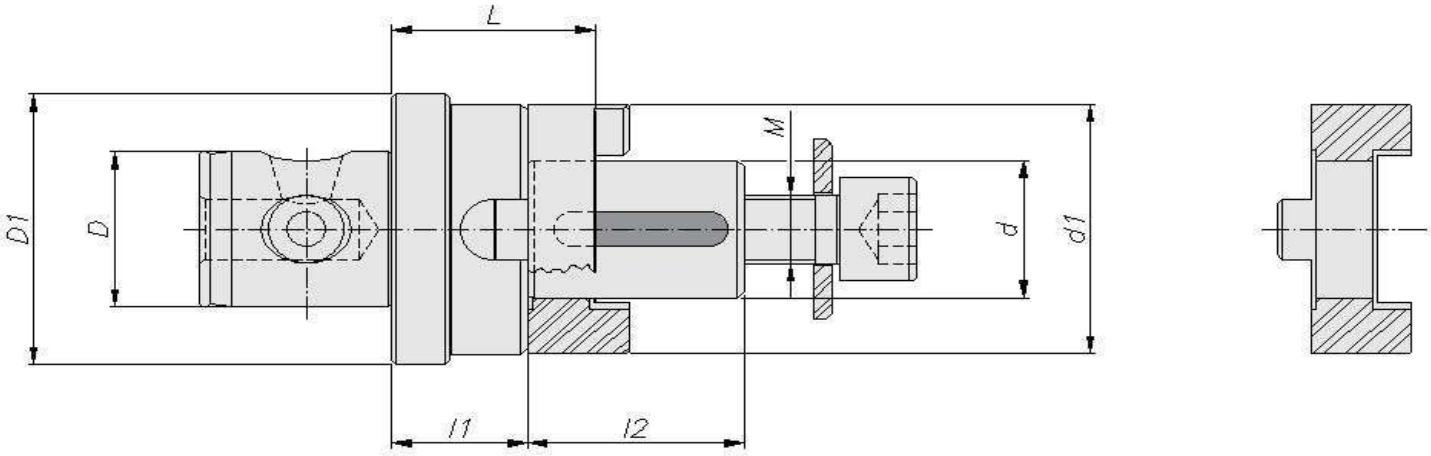


ØA	PESO WEIGTH (Kg)	CÓDIGO CODE					
		CORPO MICROMÉTRICO *CUERPO DE PRECISION* PRECISION BORING TOOLS	ELEMENTO FIXAÇÃO *ELEMENTO FIJACIÓN* CLAMPING ELEMENT	PORTA INSERTO *PORTA PLAQUITA* INSERT HOLDER	EXEC	INSERTO TIPO *PLAQUITA TIPO* INSERT TYPE	BARRA COMPLETA *BARRA COMPLETA* COMPLETE TOOLS
200 - 505	0,5	CRM-201	740.03	FMA-013	1	CCMT 0602	**CRM-204**
				FMA-023		CCMT 09T3	**CRM-214**
				FMC-013	2	TCMT 0902	**CRM-205**
				FMC-023		TCMT 1102	**CRM-215**



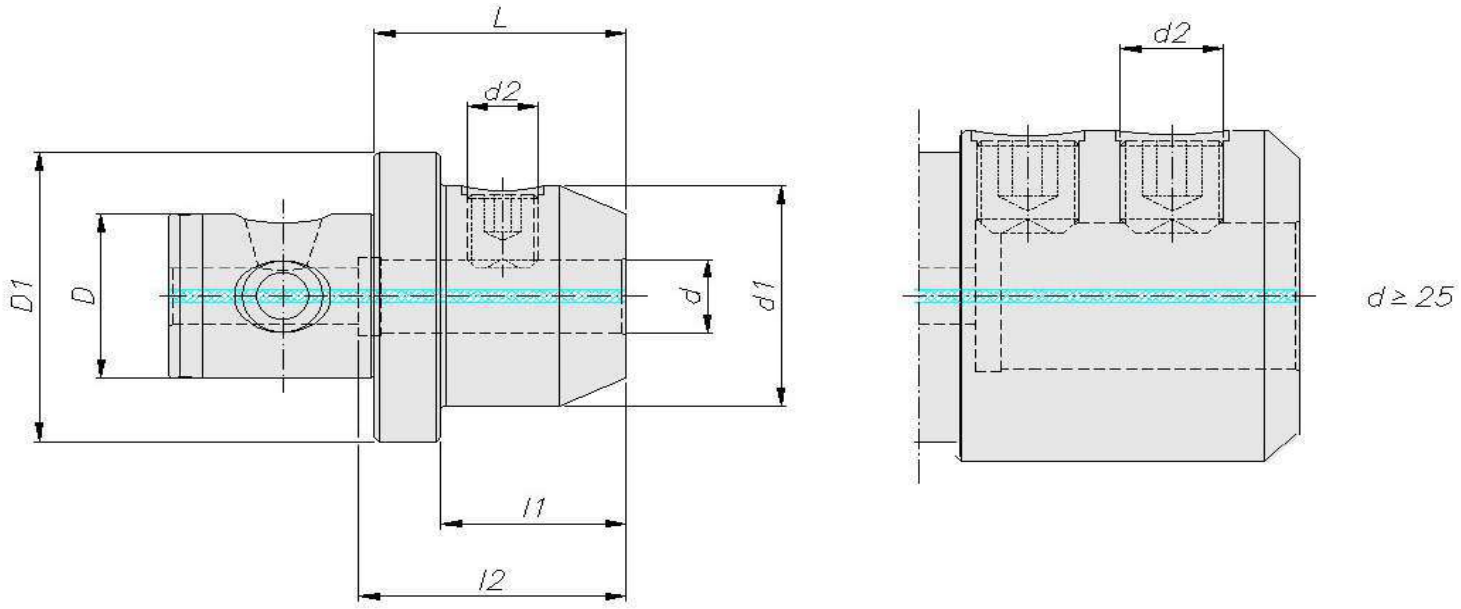
PORTA FRESA SIMPLES COM PASSAGEM DE REFRIGERAÇÃO
PORTA FRESA FRONTALE COM PASSAGE REFRIGERACIÓN
SHELL END MILL HOLDERS WITH COOLANT THROUGH

D	D1	d	d1	M	L	l1	PESO WEIGTH (Kg)	REF. FLEXIFER FLEXIFER REF.	CÓDIGO CODE
28	50	**16**	32	M8	**16**	17	0,6	**PFA-001**	**54.51.050.516**
		22	48	M10		19	0,8	**PFA-002**	**54.51.050.522**
36	63	**16**	32	M8	**16**	17	0,7	**PFA-012**	**54.51.063.516**
		22	48	M10		19	0,8	**PFA-003**	**54.51.063.522**
		27	60	M12		21	0,9	**PFA-004**	**54.51.063.527**
		32	63	M16		24	1,0	**PFA-005**	**54.51.063.532**
36	80	**27**	60	M12	**16**	21	1,0	**PFA-006**	**54.51.080.527**
					32		1,1	**PFA-007**	**54.51.180.527**
		32	70	M16	**16**	24	1,1	**PFA-008**	**54.51.080.532**
					32		1,2	**PFA-009**	**54.51.180.532**
		40	80	M20	**19**	27	1,2	**PFA-010**	**54.51.080.540**
					40		1,4	**PFA-011**	**54.51.180.540**



PORTA FRESA COMBINADO SEM PASSAGEM DE REFRIGERAÇÃO
PORTA FRESA COMBINADO SIN PASE DE REFRIGERACIÓN
SHELL END MILL HOLDERS WITHOUT COOLING PASSAGE

D	D1	d	d1	M	L	l1	l2	PESO WEIGTH (Kg)	REF. FLEXIFER FLEXIFER REF.	CÓDIGO CODE
28	50	**16**	32	M8	**40**	30	27	0,7	**PFC-002**	**54.51.050.16**
		22	40	M10		28	31	0,9	**PFC-003**	**54.51.050.22**
36	63	**16**	32	M8	**40**	30	27	0,7	**PFC-004**	**54.51.063.16**
		22	40	M10		28	31	0,8	**PFC-005**	**54.51.063.22**
		27	48	M12			33	0,9	**PFC-006**	**54.51.063.27**
		32	58	M16		26	38	1,0	**PFC-007**	**54.51.063.32**
36	80	**40**	70	M20	**53**	39	41	1,2	**PFC-008**	**54.51.080.40**

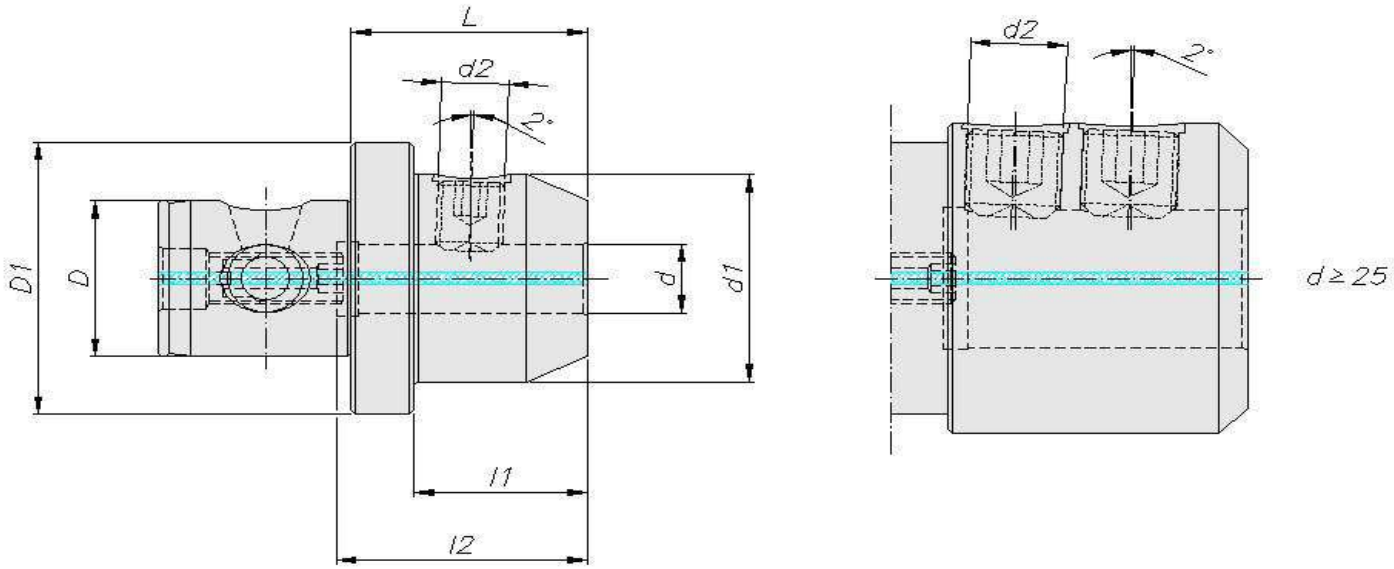


PORTA BARRA TIPO WELDON - DIN 1835-B

PORTAHERRAMIENTAS COM MANGO TIPO WELDON - DIN 1835-B

END MILL HOLDER TYPE WELDON - DIN 1835-B

D	D1	d	d1	M	L	l1	l2	PESO WEIGTH (Kg)	REF. FLEXIFER FLEXIFER REF.	CÓDIGO CODE
28	50	**6**	25	M6	**36**	30	40	0,6	**PFB-001**	**54.54.050.06**
		8	28	M8		28		0,7	**PFB-002**	**54.54.050.08**
		10	35	M10	**44**	30	44	0,8	**PFB-003**	**54.54.050.10**
		12	42	M12		28	49	0,9	**PFB-004**	**54.54.050.12**
		14	44			30		0,9	**PFB-016**	**54.54.050.14**
		16	48	M14	**49**	28	52	1,0	**PFB-005**	**54.54.050.16**
		18	50			30		1,1	**PFB-017**	**54.54.050.18**
		20	52	M16	**60**	28	54	1,2	**PFB-006**	**54.54.050.20**
36	63	**6**	25	M6	**36**	23	40	0,7	**PFB-007**	**54.54.063.06**
		8	28	M8				0,8	**PFB-008**	**54.54.063.08**
		10	35	M10	**44**	31	44	0,9	**PFB-009**	**54.54.063.10**
		12	42	M12			49	1,0	**PFB-010**	**54.54.063.12**
		14	44					1,0	**PFB-018**	**54.54.063.14**
		16	48	M14	**49**	36	52	1,1	**PFB-011**	**54.54.063.16**
		18	50					1,1	**PFB-019**	**54.54.063.18**
		20	52	M16			54	1,1	**PFB-012**	**54.54.063.20**
		25	63	M18 x 2	**75**	-	59	1,9	**PFB-013**	**54.54.063.25**
		32	72	M20 x 2			64	2,3	**PFB-014**	**54.54.063.32**
36	80	**40**	80	M20 x 2	**85**	-	74	2,5	**PFB-015**	**54.54.080.40**

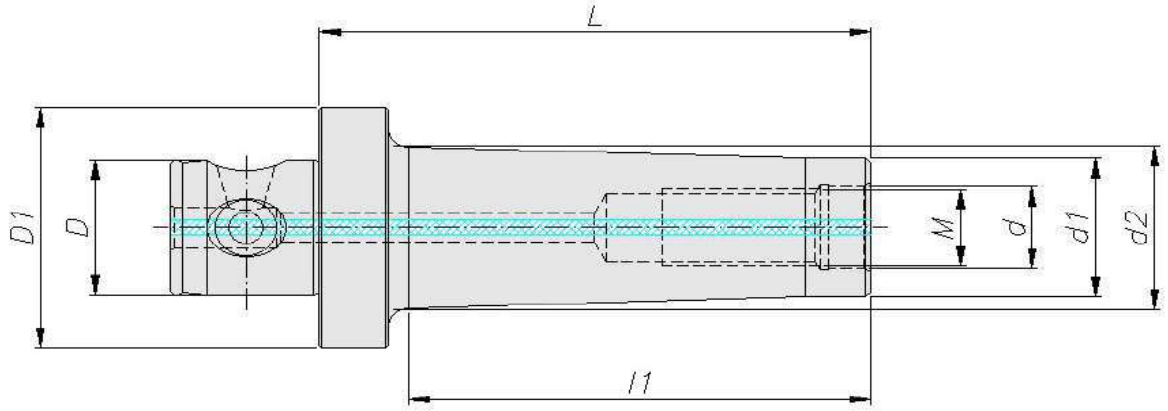


PORTA BARRA TIPO WHISTLE NOTCH - DIN 1835-E

PORTAHERRAMIENTAS COM MANGO TIPO WHISTE NOTCH - DIN 1835-E

END MILL HOLDER TYPE WHISTLE NOTCH - DIN 1835-E

D	D1	d	d1	M	L	l1	l2	PESO WEIGTH (Kg)	REF. FLEXIFER FLEXIFER REF.	CÓDIGO CODE
28	50	**6**	25	M6	**36**	30	40	0,6	**PFD-001**	**54.54.150.06**
		8	28	M8		28		0,7	**PFD-002**	**54.54.150.08**
		10	35	M10	**44**	30	44	0,8	**PFD-003**	**54.54.150.10**
		12	42	M12		28	49	0,9	**PFD-004**	**54.54.150.12**
		14	44			30		0,9	**PFD-016**	**54.54.150.14**
		16	48	M14	**49**	28	52	1,0	**PFD-005**	**54.54.150.16**
		18	50			30		1,1	**PFD-017**	**54.54.150.18**
		20	52	M16	**60**	28	54	1,2	**PFD-006**	**54.54.150.20**
36	63	**6**	25	M6	**36**	23	40	0,7	**PFD-007**	**54.54.163.06**
		8	28	M8				0,8	**PFD-008**	**54.54.163.08**
		10	35	M10	**44**	31	44	0,9	**PFD-009**	**54.54.163.10**
		12	42	M12			49	1,0	**PFD-010**	**54.54.163.12**
		14	44					1,0	**PFD-018**	**54.54.163.14**
		16	48	M14	**49**	36	52	1,1	**PFD-011**	**54.54.163.16**
		18	50					1,1	**PFD-019**	**54.54.163.18**
		20	52	M16			54	1,1	**PFD-012**	**54.54.163.20**
		25	63	M18 x 2	**75**	-	59	1,9	**PFD-013**	**54.54.163.25**
		32	72	M20 x 2			64	2,3	**PFD-014**	**54.54.163.32**
36	80	**40**	80	M20 x 2	**85**	-	74	2,5	**PFD-015**	**54.54.180.40**



PORTA FRESAS ROSCADAS

PORTAFRESAS COM MANGO ROSCADO

SCREW ON MILLING

D	D1	M	d	d1	d2	L	l1	PESO WEIGTH (Kg)	REF. FLEXIFER FLEXIFER REF.	CÓDIGO CODE
28	50	M6x1	6,5	9,8	20	**47**	30	0,3	**PFR-001**	**54.51.050.106**
					23	**67**	50	0,3	**PFR-002**	**54.51.050.206**
						97	80	0,4	**PFR-003**	**54.51.050.306**
		M8x1,25	8,5	12,8	23	**57**	40	0,3	**PFR-004**	**50.51.050.108**
						82	65	0,4	**PFR-005**	**54.51.050.208**
						95	78	0,4	**PFR-006**	**54.51.050.308**
						121	104	0,5	**PFR-007**	**54.51.050.408**
		M10x1,5	10,5	17,8	25	**71**	54	0,4	**PFR-008**	**54.51.050.110**
					28	**107**	90	0,5	**PFR-009**	**54.51.050.210**
						125	108	0,6	**PFR-010**	**54.51.050.310**
						161	144	0,7	**PFR-011**	**54.51.050.410**
		M12x1,75	12,5	20,8	24	**80**	63	0,5	**PFR-012**	**54.51.050.112**
					31	**122**	105	0,7	**PFR-013**	**54.51.050.212**
						143	126	0,8	**PFR-014**	**54.51.050.312**
						185	168	1,0	**PFR-015**	**54.51.050.412**
		M16x2	17	28,8	34	**104**	87	0,8	**PFR-016**	**54.51.050.116**
						162	145	1,2	**PFR-017**	**54.51.050.216**
						191	174	1,3	**PFR-018**	**54.51.050.316**
						249	232	1,7	**PFR-019**	**54.51.050.416**
36	63	M6x1	6,5	9,8	20	**47**	30	0,7	**PFR-020**	**54.51.063.106**
					23	**67**	50	0,7	**PFR-021**	**54.51.063.206**
						97	80	0,8	**PFR-022**	**54.51.063.306**
		M8x1,25	8,5	12,8	23	**57**	40	0,7	**PFR-023**	**50.51.063.108**
						82	65	0,8	**PFR-024**	**54.51.063.208**
						95	78	0,8	**PFR-025**	**54.51.063.308**
						121	104	0,9	**PFR-026**	**54.51.063.408**
		M10x1,5	10,5	17,8	25	**71**	54	0,8	**PFR-027**	**54.51.063.110**
					28	**107**	90	0,9	**PFR-028**	**54.51.063.210**
						125	108	1,0	**PFR-029**	**54.51.063.310**
						161	144	1,1	**PFR-030**	**54.51.063.410**
		M12x1,75	12,5	20,8	24	**80**	63	0,9	**PFR-031**	**54.51.063.112**
					31	**122**	105	1,1	**PFR-032**	**54.51.063.212**
						143	126	1,2	**PFR-033**	**54.51.063.312**
						185	168	1,4	**PFR-034**	**54.51.063.412**
		M16x2	17	28,8	34	**104**	87	1,2	**PFR-035**	**54.51.063.116**
						162	145	1,6	**PFR-036**	**54.51.063.216**
						191	174	1,7	**PFR-037**	**54.51.063.316**
						249	232	2,1	**PFR-038**	**54.51.063.416**

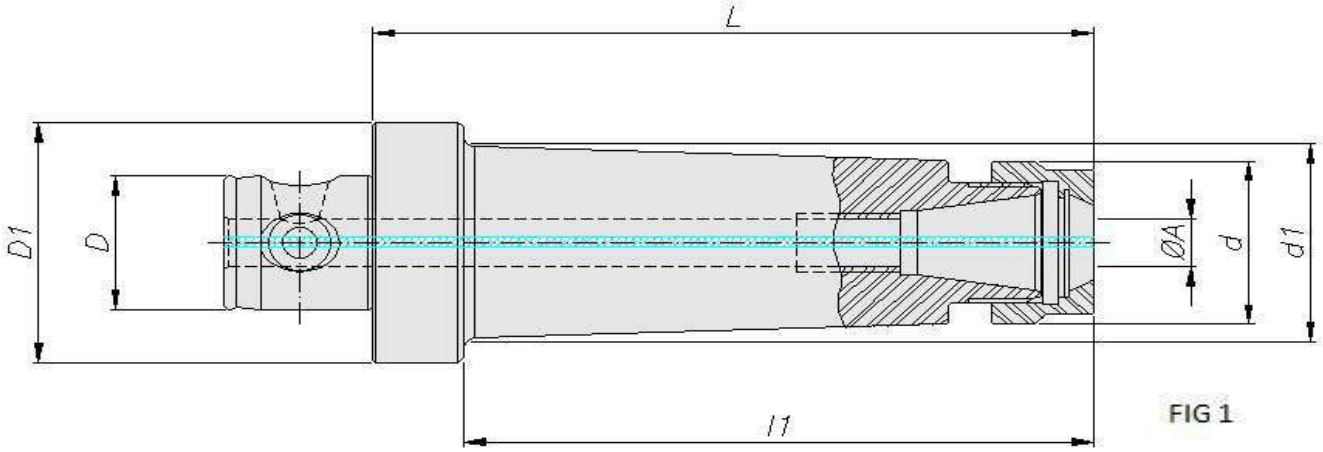


FIG 1

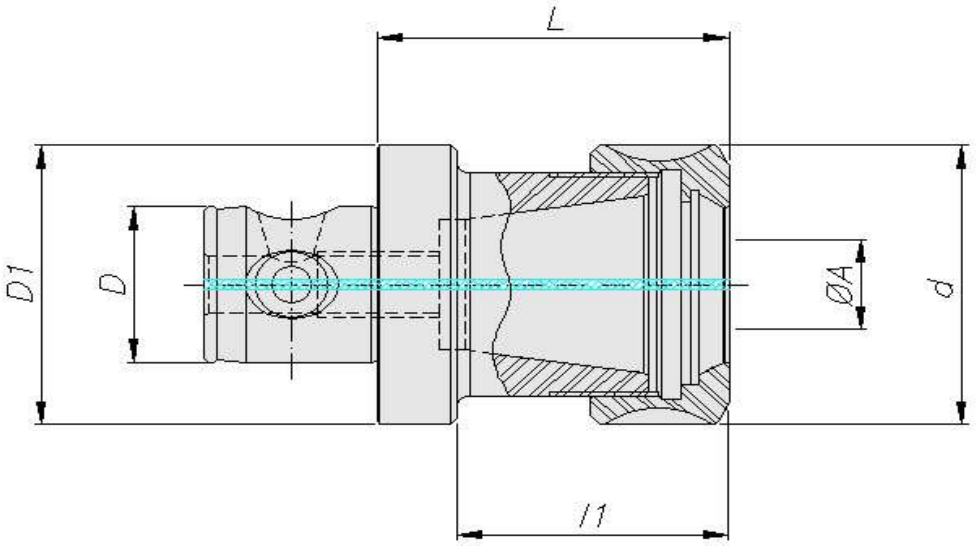


FIG 2

PORTA PINÇAS DE PRECISÃO - DIN 6499
PORTAPINZAS DE PRECÍSION - DIN 6499
PRECISION COLLET HOLDERS - DIN 6499

D	D1	PINÇA COLLET TIPO TYPE	PINÇA COLLET ØA	d	d1	L	l1	FIG	PESO WEIGTH (Kg)	REF. FLEXIFER FLEXIFER REF.	CÓDIGO CODE
28	50	ER-11	1 - 8	19	25	**117**	102	1	0,3	**PPB-018**	**54.55.050.011**
		ER-16	1 - 12	28	34				0,3	**PPB-019**	**54.55.050.016**
		ER-20	1 - 16	34	-	**48**	33	2	0,4	**PPB-011**	**54.55.050.020**
					40	**137**	122	1	0,3	**PPB-020**	**54.55.050.120**
		ER-25	1 - 20	42	-	**52**	37	2	0,4	**PPB-012**	**54.55.050.025**
		ER-32	1 - 25	50	-	**57**	42		0,4	**PPB-013**	**54.55.050.032**
36	63	ER-20	1 - 16	34	-	**48**	33	2	1,1	**PPB-014**	**54.55.063.020**
		ER-25	1 - 20	42		**52**	37		1,2	**PPB-015**	**54.55.063.025**
		ER-32	1 - 25	50		**57**	42		1,4	**PPB-016**	**54.55.063.032**
		ER-40	1 - 32	63		**64**	-		1,5	**PPB-017**	**54.55.063.040**

SISTEMA DE FERRAMENTAS MODULARES

PORTAHERRAMIENTAS MODULARES

MODULAR TOOL HOLDERS

MULTI-FIX













COMERCIALIZADO POR:

SANBLA COMERCIAL LTDA

Estrada de Sapopemba, 7025

Quarta Divisão, Ribeirão Pires, São Paulo, Brasil

Cep 09436-000

Fone (11) 4824-2900 Vendas (11) 4824-2919

e-mail: atendimento@sanchesblanes.com.br