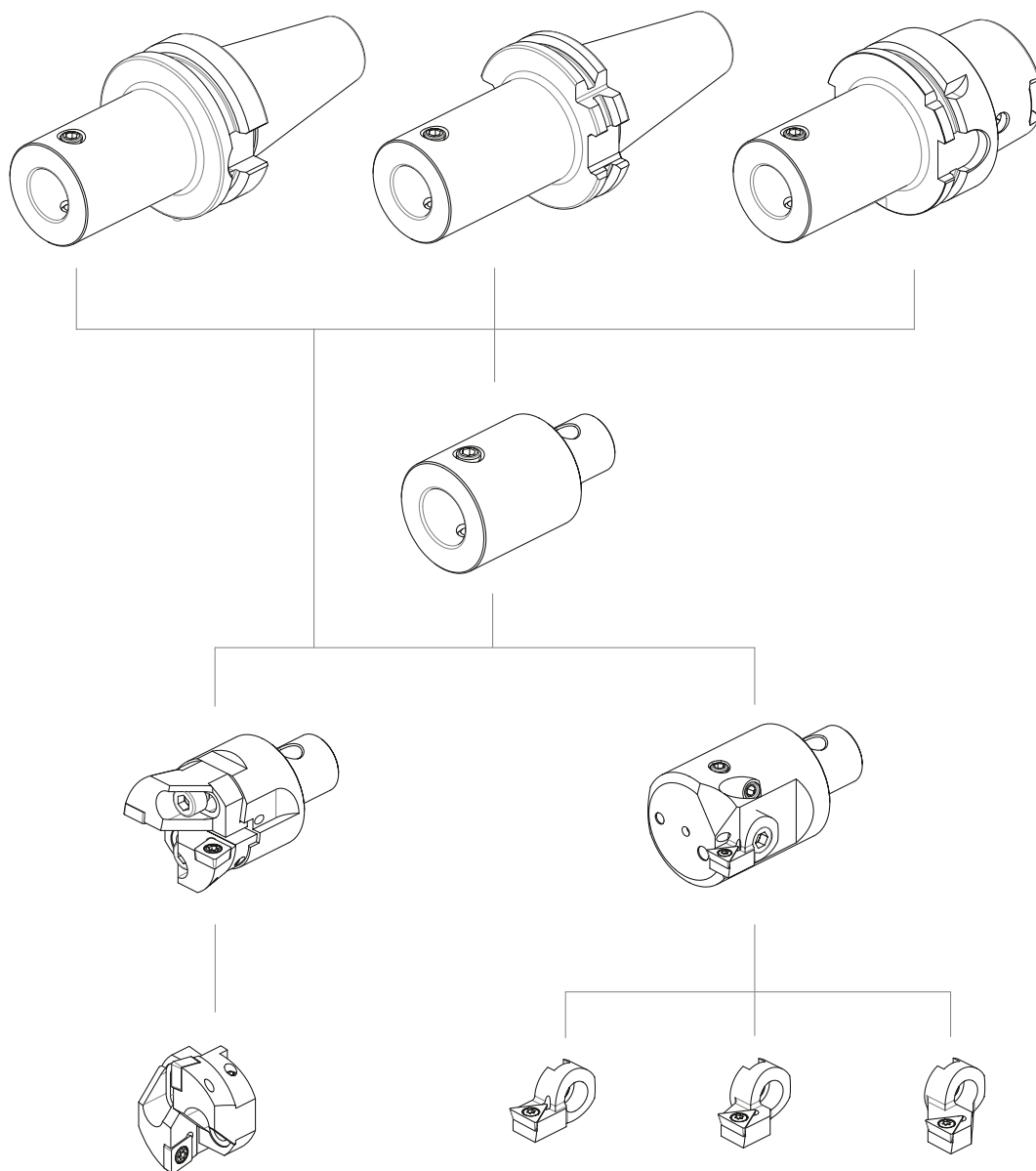


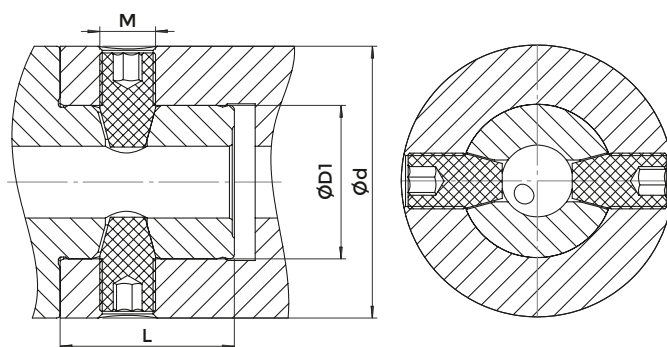


BORING
SYSTEM

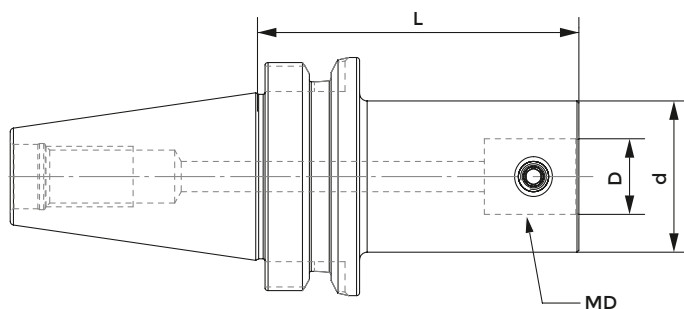
BORING SYSTEM



MD	D1	d	L	M
1	11	19	13	M4X0.5
2	14	24	17	M5X0.5
3	18	31	20	M6X0.75
4	22	40	25	M8X0.75
5	28	50	35	M10X1.0
6	36	63	40	M12X1.0



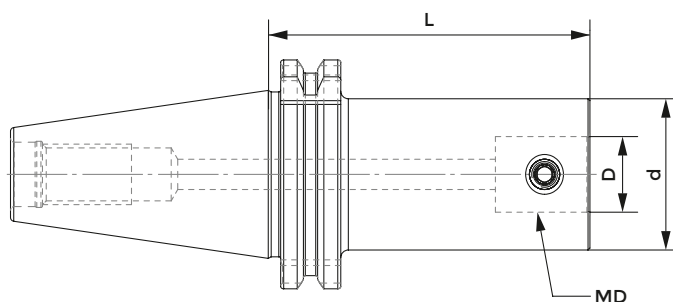
BASE HOLDER FOR BORING HEADS - MAS403/BT-AD



JIS-B 6339 MAS 403/BT

COD.	DESCRIPTION	ISO	MD	d	L	D	SCREW
							
290-01501	BT40H85MD2	40	2	24	85	14	811-402093
290-01502	BT40H115MD2	40	2	24	115	14	811-402093
290-01503	BT40H95MD3	40	3	31	95	18	811-402094
290-01504	BT40H125MD3	40	3	31	125	18	811-402094
290-01505	BT40H85MD4	40	4	40	85	22	811-402095
290-01506	BT40H130MD4	40	4	40	130	22	811-402095
290-01507	BT40H75MD5	40	5	50	75	28	811-402096
290-01508	BT40H125MD5	40	5	50	125	28	811-402096
290-01521	BT40H65MD6	40	6	64	65	36	811-402101
290-01522	BT40H115MD6	40	6	64	115	36	811-402101
290-01509	BT50H85MD2	50	2	24	85	14	811-402093
290-01510	BT50H110MD2	50	2	24	110	14	811-402093
290-01511	BT50H80MD3	50	3	31	80	18	811-402094
290-01512	BT50H125MD3	50	3	31	125	18	811-402094
290-01514	BT50H145MD4	50	4	40	145	22	811-402095
290-01515	BT50H105MD5	50	5	50	105	28	811-402096
290-01516	BT50H180MD5	50	5	50	180	28	811-402096
290-01523	BT50H95MD6	50	6	64	95	36	811-402101
290-01524	BT50H170MD6	50	6	64	170	36	811-402101

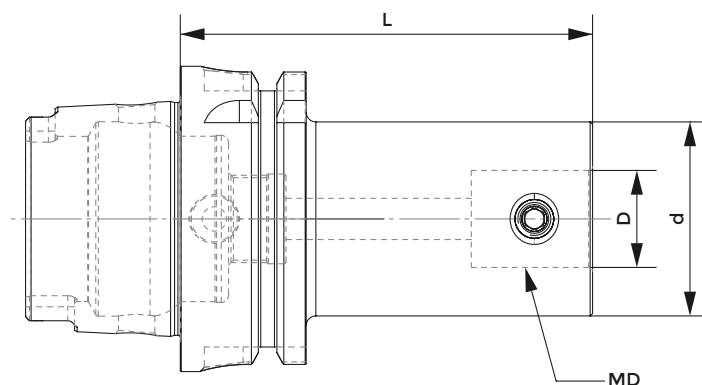
BASE HOLDER FOR BORING HEADS - DIN69871-AD (SK)



DIN 69871

COD.	DESCRIPTION	ISO	MD	d	L	D	SCREW
							
290-01201	TC40H85MD2	40	2	24	85	14	811-402093
290-01202	TC40H100MD2	40	2	24	100	14	811-402093
290-01203	TC40H95MD3	40	3	31	95	18	811-402094
290-01204	TC40H125MD3	40	3	31	125	18	811-402094
290-01205	TC40H85MD4	40	4	40	85	22	811-402095
290-01206	TC40H130MD4	40	4	40	130	22	811-402095
290-01207	TC40H75MD5	40	5	50	75	28	811-402096
290-01208	TC40H125MD5	40	5	50	125	28	811-402096
290-01217	TC40H65MD6	40	6	64	65	36	811-402101
290-01218	TC40H115MD6	40	6	64	115	36	811-402101
290-01209	TC50H85MD2	50	2	24	85	14	811-402093
290-01210	TC50H110MD2	50	2	24	110	14	811-402093
290-01211	TC50H80MD3	50	3	31	80	18	811-402094
290-01212	TC50H125MD3	50	3	31	125	18	811-402094
290-01213	TC50H115MD4	50	4	40	115	22	811-402095
290-01214	TC50H145MD4	50	4	40	145	22	811-402095
290-01215	TC50H105MD5	50	5	50	105	28	811-402096
290-01216	TC50H180MD5	50	5	50	180	28	811-402096
290-01219	TC50H95MD6	50	6	64	95	36	811-402101
290-01220	TC50H170MD6	50	6	64	170	36	811-402101

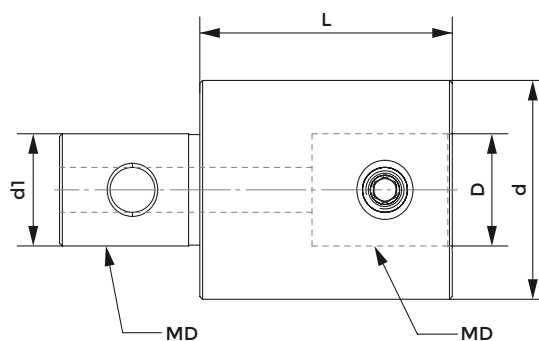
BASE HOLDER FOR BORING HEADS - DIN69893/A (HSK)



DIN 69893/A

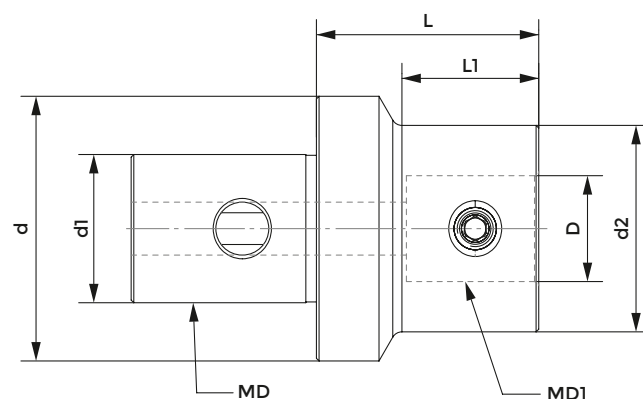
COD.	DESCRIPTION	HSK	MD	d	L	D	SCREW
							
290-01701	HSK63AH85MD2	63	2	24	85	14	811-402093
290-01702	HSK63AH100MD2	63	2	24	100	14	811-402093
290-01703	HSK63AH95MD3	63	3	31	95	18	811-402094
290-01704	HSK63AH125MD3	63	3	31	125	18	811-402094
290-01705	HSK63AH85MD4	63	4	40	85	22	811-402095
290-01706	HSK63AH130MD4	63	4	40	130	22	811-402095
290-01707	HSK63AH75MD5	63	5	50	75	28	811-402096
290-01708	HSK63AH125MD5	63	5	50	125	28	811-402096

EXTENSIONS FOR BORING HEADS



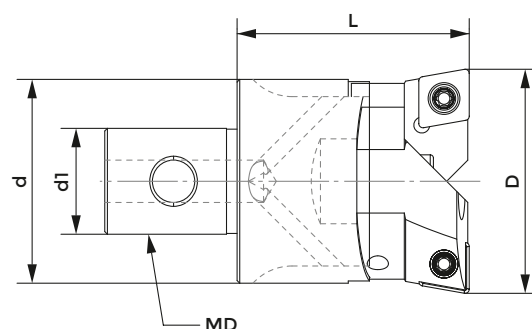
COD.	DESCRIPTION	MD	d	L	d1	D	SCREW
							
291-20001	MD2L30MD2	2	24	30	14	14	811-402093
291-20002	MD3L30MD3	3	31	30	18	18	811-402094
291-20003	MD4L45MD4	4	39	45	22	22	811-402095
291-20004	MD5L60MD5	5	50	60	28	28	811-402096
291-20005	MD6L60MD6	6	64	60	36	36	811-402101

REDUCERS FOR BORING HEADS

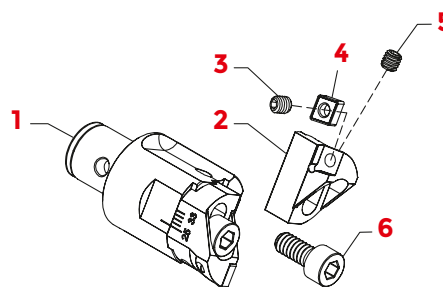


COD.	DESCRIPTION	MD	MD1	d	d2	L	L1	d1	D	SCREW
										
291-30003	MD3L37MD2	3	2	31	24	37	25	18	14	811-402093
291-30005	MD4L50MD2	4	2	40	24	50	36	22	14	811-402093
291-30006	MD4L50MD3	4	3	40	31	50	37	22	18	811-402094
291-30008	MD5L54MD2	5	2	50	24	54	35	28	14	811-402093
291-30009	MD5L47MD3	5	3	50	31	47	29	28	18	811-402094
291-30010	MD5L42MD4	5	4	50	40	42	25	28	22	811-402095
291-30011	MD6L63MD2	6	2	64	24	63	45	36	14	811-402101
291-30012	MD6L56MD3	6	3	64	31	56	39	36	18	811-402101
291-30013	MD6L51MD4	6	4	64	40	51	35	36	22	811-402101
291-30014	MD6L41MD5	6	5	64	50	41	25	36	28	811-402101

DOUBLE INSERT BORING HEADS - INCL. INSERT CARRIERS



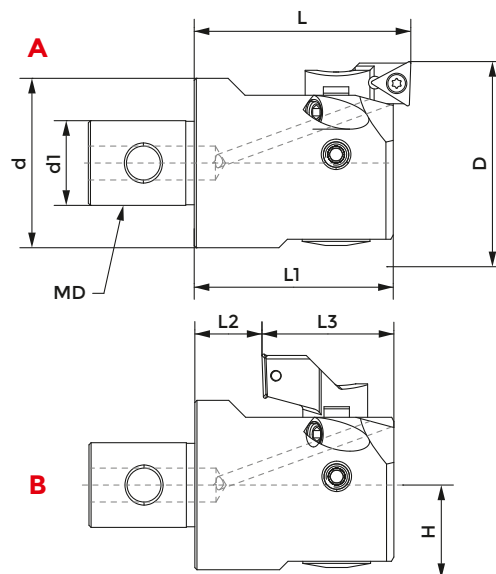
COD.	DESCRIPTION	MD	D	d	L	d1
523-90001	MD2-CL2533	2	25-33	23,5	35,5	14
523-90002	MD3-CL3242	3	32-42	30,5	40	18
523-90003	MD4-CL4154	4	41-54	38,5	47	22
523-90004	MD5-CL5370	5	53-70	49,5	57	28
523-90005	MD6-CL6890	6	68-90	63	71	36
523-90006	MD6-CL88110	6	88-110	63	71	36
523-90007	MD6-CL98126	6	98-126	63	71	36
523-90008	MD6-CL125153	6	125-153	63	71	36



1	6	6	5	5	2	2	4	3	3	3
COD.	LOCKING SCREW	Q.TY	ADJ. SCREW	Q.TY	INSERT CARRIER COD.	Q.TY	INSERT	INSERT KEY	INSERT SCREW	INSERT SCREW COD.
523-90001	M5x20	2	M3x6	2	CRT-2533	2	CC..0602..	T8	m2,5x6	811-226018
523-90002	M6x20	2	M4x8	2	CRT-3242	2	CC..09T3..	T15	m4x10	811-256026
523-90003	M8x25	2	M5x8	2	CRT-4154	2	CC..09T3..	T15	m4x10	811-256026
523-90004	M10x35	2	M6x12	2	CRT-5370	2	CC..1204..	T20	m5x12	811-256027
523-90005	M10x35	4	M6x12	2	CRT-6890	2	CC..1204..	T20	m5x12	811-256027
523-90006	M10x35	4	M6x20	2	CRT-88110	2	CC..1204..	T20	m5x12	811-256027
523-90007	M12x40	4	M8x20	2	CRT-98126	2	CC..1204..	T20	m5x12	811-256027
523-90008	M12x40	4	M8x25	2	CRT-125153	2	CC..1204..	T20	m5x12	811-256027

Locking screw, adjustment screw and insert screw keys included.

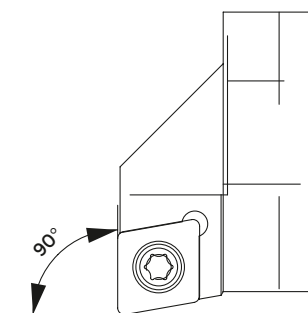
FINISHING BORING HEADS - INCL. INSERT CARRIER



COD.	DESCRIPTION	MD	d1	INSERT CARRIER	D	A			B			
						d	L	L1	D	L2	L3	H
533-90001	MD2-FNT2547	2	14	*534-90001	25-33	24	35,5	33	-	11,5	21,5	12,5
		2	14	534-90002	32-40	24	35,5	33	36-40	11,5	21,5	12,5
		2	14	534-90003	39-47	24	35,5	33	39-47	11,5	21,5	12,5
533-90002	MD3-FNT3260	3	18	*534-90004	32-42	31	40	37	-	10	27	16
		3	18	534-90005	41-51	31	40	37	46-51	10	27	16
		3	18	534-90006	50-60	31	40	37	50-60	10	27	16
533-90003	MD4-FNT4174	4	22	*534-90007	41-54	40	47	43	-	12	31	20
		4	22	534-90008	50-63	40	47	43	53-63	12	31	20
		4	22	534-90009	61-74	40	47	43	61-74	12	31	20
533-90004	MD5-FNT5395	5	28	*534-90010	53-70	50	57	52	62-70	15	37	25,5
		5	28	534-90011	65-82	50	57	52	65-82	15	37	25,5
		5	28	534-90012	78-95	50	57	52	78-95	15	37	25,5
533-90005	MD6-FNT68150	6	36	*534-90013	68-100	64	71	67	80-100	23	44	32,5
		6	36	534-90014	94-126	64	71	67	94-126	23	44	32,5
		6	36	534-90015	118-150	64	71	67	118-150	23	44	32,5

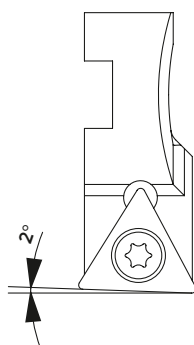
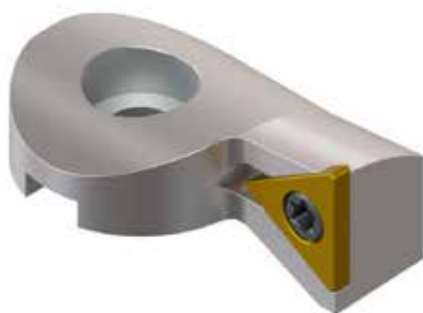
* cartridge assembled in boring head

INSERT CARRIERS FOR DOUBLE INSERT BORING HEADS

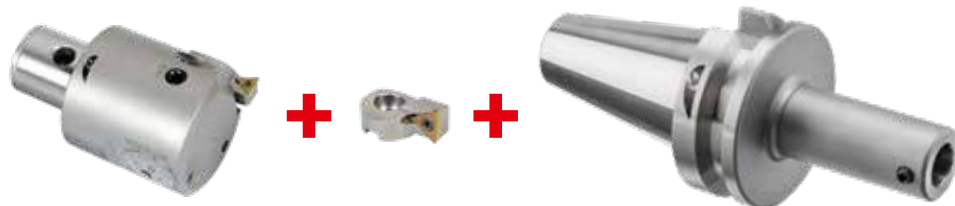


COD.	DESCRIPTION	MD	INSERT	SCREW
524-90001	CRT-2533	2	CC..0602..	811-226018
524-90002	CRT-3242	3	CC..09T3..	811-256026
524-90003	CRT-4154	4	CC..09T3..	811-256026
524-90004	CRT-5370	5	CC..1204..	811-256027
524-90005	CRT-6890	6	CC..1204..	811-256027
524-90006	CRT-88110	6	CC..1204..	811-256027
524-90007	CRT-98126	6	CC..1204..	811-256027
524-90008	CRT-125153	6	CC..1204..	811-256027

INSERT CARRIER FOR FINISHING BORING HEAD

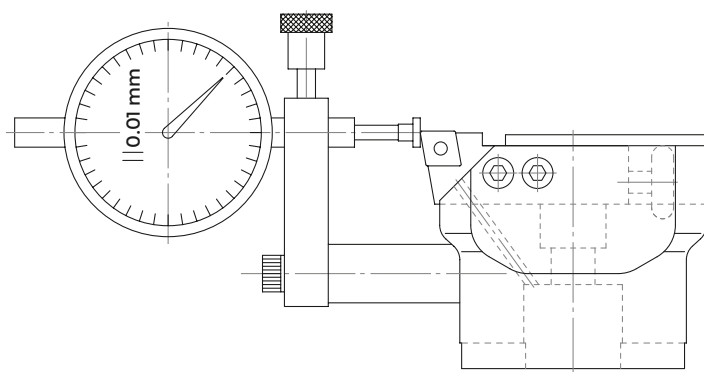
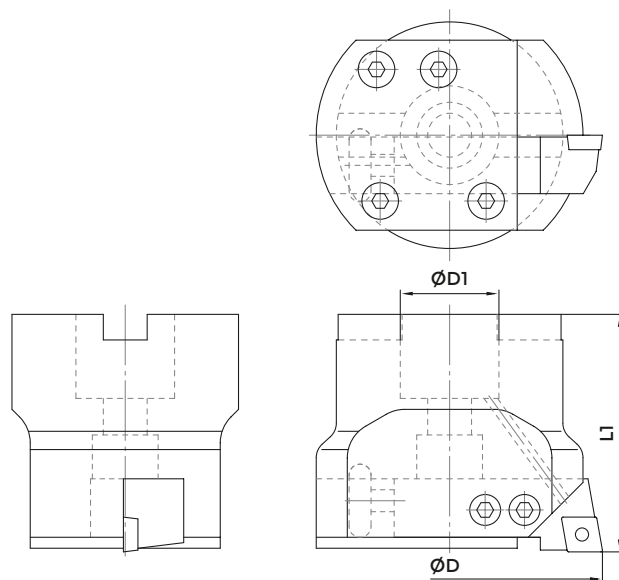


COD.	DESCRIPTION	MD	INSERT	SCREW
534-90001	CRF-2533/MD2	2	TC..06T102..	811-286007
534-90002	CRF-3240/MD2	2	TC..06T102..	811-286007
534-90003	CRF-3947/MD2	2	TC..06T102..	811-286007
534-90004	CRF-3242/MD3	3	TC..06T102..	811-286007
534-90005	CRF-4151/MD3	3	TC..06T102..	811-286007
534-90006	CRF-5060/MD3	3	TC..06T102..	811-286007
534-90016	CRF-2735/MD2	2	CC..0602..	811-226018
534-90017	CRF-3240/MD2	2	CC..0602..	811-226018
534-90018	CRF-3947/MD2	2	CC..0602..	811-226018
534-90019	CRF-3242/MD3	3	CC..0602..	811-226018
534-90020	CRF-4154/MD3	3	CC..0602..	811-226018
534-90021	CRF-5060/MD3	3	CC..0602..	811-226018
534-90007	CRF-4154/MD4	4	TC..1102..	811-226018
534-90008	CRF-5063/MD4	4	TC..1102..	811-226018
534-90009	CRF-6174/MD4	4	TC..1102..	811-226018
534-90010	CRF-5370/MD5	5	TC..1102..	811-226018
534-90011	CRF-6582/MD5	5	TC..1102..	811-226018
534-90012	CRF-7895/MD5	5	TC..1102..	811-226018
534-90013	CRF-68100/MD6	6	TC..1102..	811-226018
534-90014	CRF-94126/MD6	6	TC..1102..	811-226018
534-90015	CRF-118150/MD6	6	TC..1102..	811-226018



COD.	BASE HOLDER		BORING HEAD		INSERT CARRIER
KIT533SK40MD2	290-01201	TC40H85MD2	533-90001	FINISHING BORING HEAD MD2-FNT25-47	534-90001 25-33 TC..06T102..
KIT533BT40MD2	290-01501	BT40H85MD2	533-90001	FINISHING BORING HEAD MD2-FNT25-47	534-90001 25-33 TC..06T102..
KIT533SK40MD3	290-01203	TC40H95MD3	533-90002	FINISHING BORING HEAD MD3-FNT32-60	534-90004 32-42 TC..06T102..
KIT533BT40MD3	290-01503	BT40H95MD3	533-90002	FINISHING BORING HEAD MD3-FNT32-60	534-90004 32-42 TC..06T102..
KIT533SK40MD4	290-01205	TC40H85MD4	533-90003	FINISHING BORING HEAD MD4-FNT41-74	534-90007 41-54 TC..1102..
KIT533BT40MD4	290-01505	BT40H85MD4	533-90003	FINISHING BORING HEAD MD4-FNT41-74	534-90007 41-54 TC..1102..
KIT533SK40MD5	290-01207	TC40H75MD5	533-90004	FINISHING BORING HEAD MD5-FNT53-95	534-90010 53-70 TC..1102..
KIT533BT40MD5	290-01507	BT40H75MD5	533-90004	FINISHING BORING HEAD MD5-FNT53-95	534-90010 53-70 TC..1102..
KIT533SK40MD2L	290-01202	TC40H100MD2	533-90001	FINISHING BORING HEAD MD2-FNT25-47	534-90001 25-33 TC..06T102..
KIT533BT40MD2L	290-01502	BT40H100MD2	533-90001	FINISHING BORING HEAD MD2-FNT25-47	534-90001 25-33 TC..06T102..
KIT533BT40MD3L	290-01504	BT40H125MD3	533-90002	FINISHING BORING HEAD MD3-FNT32-60	534-90004 32-42 TC..06T102..
KIT533SK40MD4L	290-01206	TC40H130MD4	533-90003	FINISHING BORING HEAD MD4-FNT41-74	534-90007 41-54 TC..1102..
KIT533SK40MD5L	290-01208	TC40H125MD5	533-90004	FINISHING BORING HEAD MD5-FNT53-95	534-90010 53-70 TC..1102..
KIT533HSKMD4	290-01705	HSK63AH85MD4	533-90003	FINISHING BORING HEAD MD4-FNT41-74	534-90007 41-54 TC..1102..
KIT533HSKMD3L	290-01704	HSK63AH125MD3	533-90002	FINISHING BORING HEAD MD3-FNT32-60	534-90004 32-42 TC..06T102..
KIT533HSKMD4L	290-01706	HSK63AH130MD4	533-90003	FINISHING BORING HEAD MD4-FNT41-74	534-90007 41-54 TC..1102..

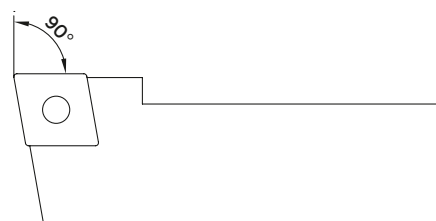
ADJUSTABLE BORING HEADS



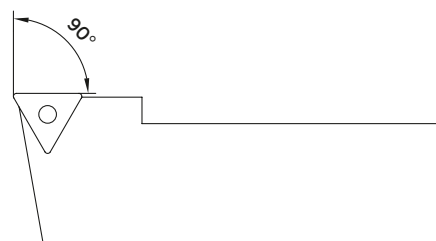
COD.	D	D1	L1	INSERT CARRIER		
RAIMAX 30	Ø28-40	16	45	K-SCGCL 08-06	K-STGPL 08-09	-
RAIMAX 40	Ø39-55	16	50	K-SCGCL 10-06	K-STGPL 10-09	-
RAIMAX 50	Ø49-75	22	56	K-SCGCL 12-09	K-STGPL 12-11	K-SSXCL 12-09
RAIMAX 75	Ø74-115	27	65	K-SCGCL 16-09	K-STGPL 16-11	K-SSXCL 16-09
RAIMAX 100	Ø98-160	40	67	K-SCGCL 20-09	K-STGPL 20-11	K-SSXCL 20-09
RAIMAX 150	Ø148-250	40	67	K-SCGCL 20L-09	K-STGPL 20L-11	K-SSXCL 20L-09

The insert carrier is not supplied with the head RAIMAX but must be ordered separately

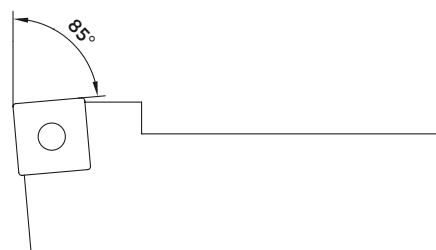
INSERT CARRIERS



COD.	INSERT	SCREW	KEY
			
K-SCGCL 08-06	CCMT 0602	KV28	Torx 7
K-SCGCL 10-06	CCMT 0602	KV28	Torx 7
K-SCGCL 12-09	CCMT 09T3	KV4c	Torx 15
K-SCGCL 16-09	CCMT 09T3	KV4c	Torx 15
K-SCGCL 20-09	CCMT 09T3	KV4c	Torx 15
K-SCGCL 20L-09	CCMT 09T3	KV4c	Torx 15



COD.	INSERT	SCREW	KEY
			
K-STGPL 08-09	TPGX 0902	KV28	Torx 7
K-STGPL 10-09	TPGX 0902	KV28	Torx 7
K-STGPL 12-11	TPGX 1103	KV10	Torx 9
K-STGPL 16-11	TPGX 1103	KV10	Torx 9
K-STGPL 20-11	TPGX 1103	KV10	Torx 9
K-STGPL 20L-11	TPGX 1103	KV10	Torx 9

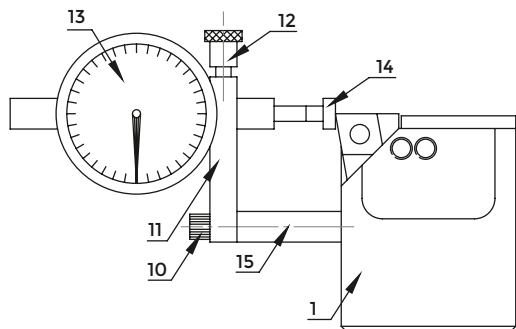


COD.	INSERT	SCREW	KEY
			
K-SSXCL 12-09	SCMT 09T3	KV4c	Torx 15
K-SSXCL 16-09	SCMT 09T3	KV4c	Torx 15
K-SSXCL 20-09	SCMT 09T3	KV4c	Torx 15
K-SSXCL 20L-09	SCMT 09T3	KV4c	Torx 15

RAIMAX - ADJUSTABLE BORING HEAD "PHI" 28-250 MISURAIMAX - MEASURING DEVICE

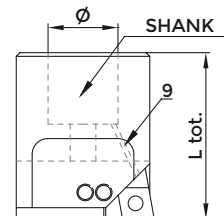
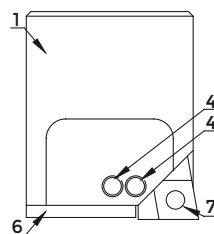
SUITABLE FOR STANDARD END MILL HOLDERS

RAIMAX adjustable head is suitable for boring and reaming machining. All heads are equipped with coolant nozzle. Tool cutting diameter is adjusted by turning a screw. Adjustment screw acts on the insert carrier, that slides within a U-shaped groove obtained in tool body. For centesimal adjustment of cutting diameter, MISURAIMAX device, consisting of a tube and a centesimal or millesimal dial gauge, can be used.

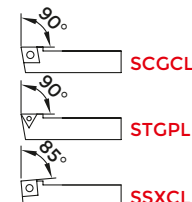


- | | |
|------------------------------------|------------------------------|
| 1. RAIMAX tool body | 9. Coolant nozzle |
| 2. Insert carrier adjustment screw | 10. MISURAIMAX locking screw |
| 3. Cone locking screw | 11. Measuring device arm |
| 4. Short cover screw | 12. Dial gauge locking screw |
| 5. Cover screws | 13. Dial gauge |
| 6. Cover | 14. Gauge probe |
| 7. Insert carrier | 15. Tube |
| 8. Spring | |

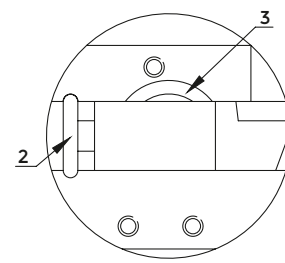
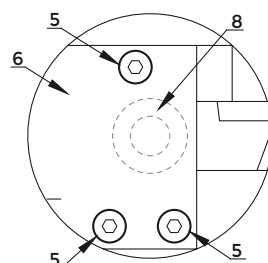
RAIMAX® Head



INSERT CARRIERS



WITHOUT COVER



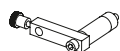
RAIMAX INSTRUCTIONS:

- Unscrew the three screws (5) and remove the cover (6)
- Loosen the two screws (4)
- Remove the cartridge (7) from the slot
- Fix the head on the holder and clamp it with the screw (3)
- Put again the cartridge (7) in the slot.
- Tighten the screws (5) to assembly the cover
- Adjust the measure of cutting diameter rotating the screw. This will cause the shifting of the cartridge.
- Tighten the two screws (4)
- RAIMAX boring head is ready to be used

COD.	SCREW	COVER	SCREW FOR COVER	SCREW	SCREW
RAIMAX 30	KSR M8 R/L	KCC30	2 x KVCC30	KVR30	2 x KGG30
RAIMAX 40	KSR M8x20	KCC40	3 x KVCC40	KVR40	2 x KGG40
RAIMAX 50	KSR M10x20	KCC50	3 x KVCC50	KVR50	2 x KGG50
RAIMAX 75	KSR M12x25	KCC75	4 x KVCC75	KVR75	2 x KGG75
RAIMAX 100	KSR M20X	KCC100	4 x KVCC100	KVR100	2 x KGG100
RAIMAX 150	KSR M20X	KCC150	4 x KVCC150	KVR150	2 x KGG150



COD.



MISURAIMAX 30-40 + Dial indicator 1/100 0-5 mm
MISURAIMAX 30-40 + Dial indicator 1/100 0-5 mm
MISURAIMAX 50 + Dial indicator 1/100 0-10 mm
MISURAIMAX 75 + Dial indicator 1/100 0-10 mm
MISURAIMAX 100 + Dial indicator 1/100 0-10 mm
MISURAIMAX 150 + Dial indicator 1/100 0-10 mm

MISURAIMAX INSTRUCTIONS:

- Check the two locking screws of the cartridge (4). These must be tightened.
- Fix MISURAIMAX without dial gauge up to the head and tighten the screw (10).
- Insert the dial gauge in the holding bar, push it up to the head till the contact point will touch the edge of insert of cartridge. Then tighten carefully the locking screw of the dial gauge (12).
- Zero the dial gauge
- Loosen the two locking screws of the gauge (4)
- Modify the boring diameter of the head rotating the adjustment screws (2).
- Check also the centesimal variation on the gauge display. After getting the measure, tighten the screws (4)
- Remove MISURAIMAX loosening the screws (10)
- RAIMAX is now ready to be used



READY, ALWAYS.