

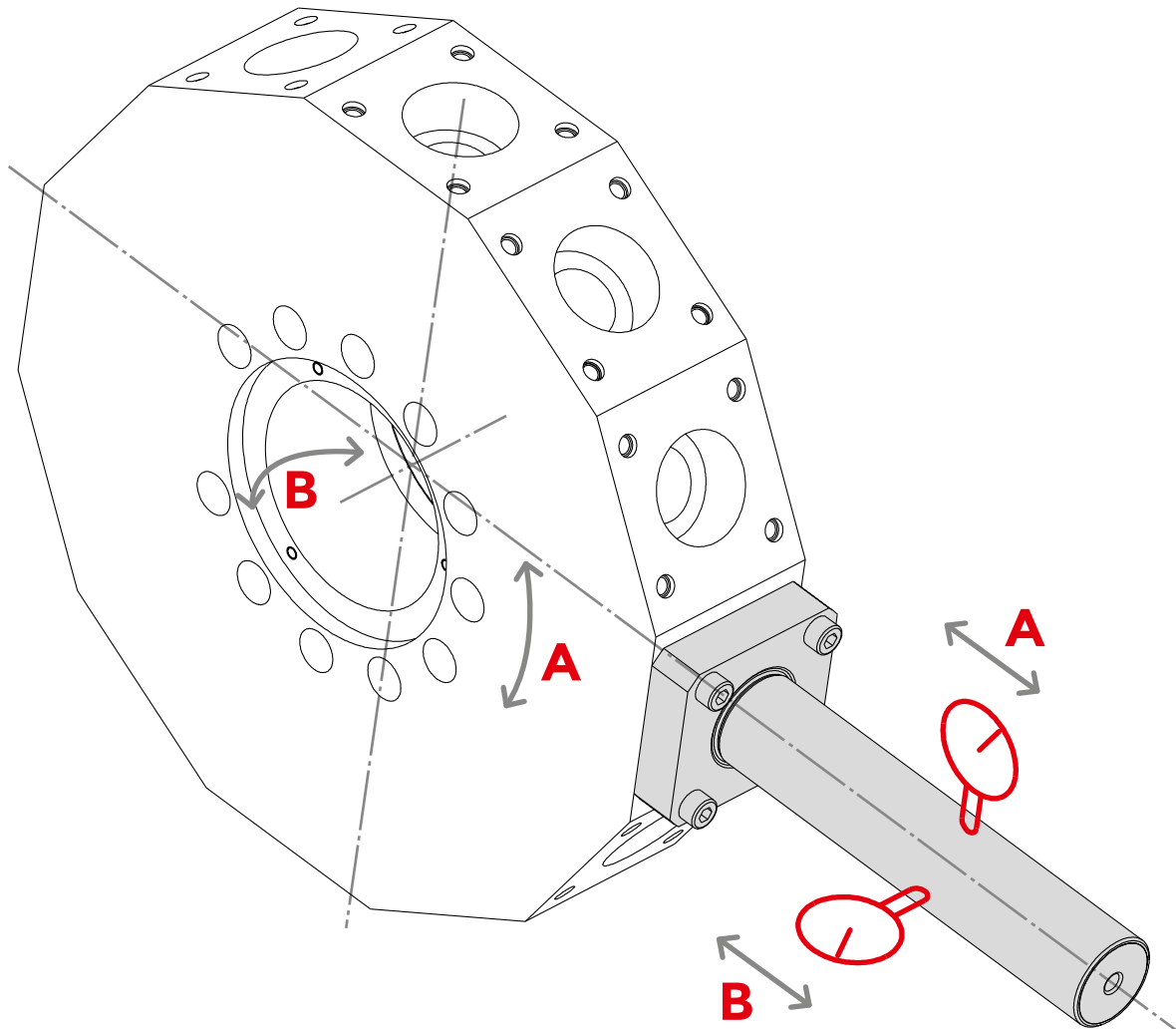


# CONTROL PINS

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**CONTROL PINS**



- Control pin for CNC lathes turret with test certificate included
- Radial run-out, shank precision, contact face and control cylinder within 0,003 micron
- Application: after having set it up in any turret station like a normal tool holder, you can check its orthogonality by moving the dial indicator along the X axis of the machine

**TECHNICAL FEATURES**

**CONE TOLERANCE:**

According to the class AT3.

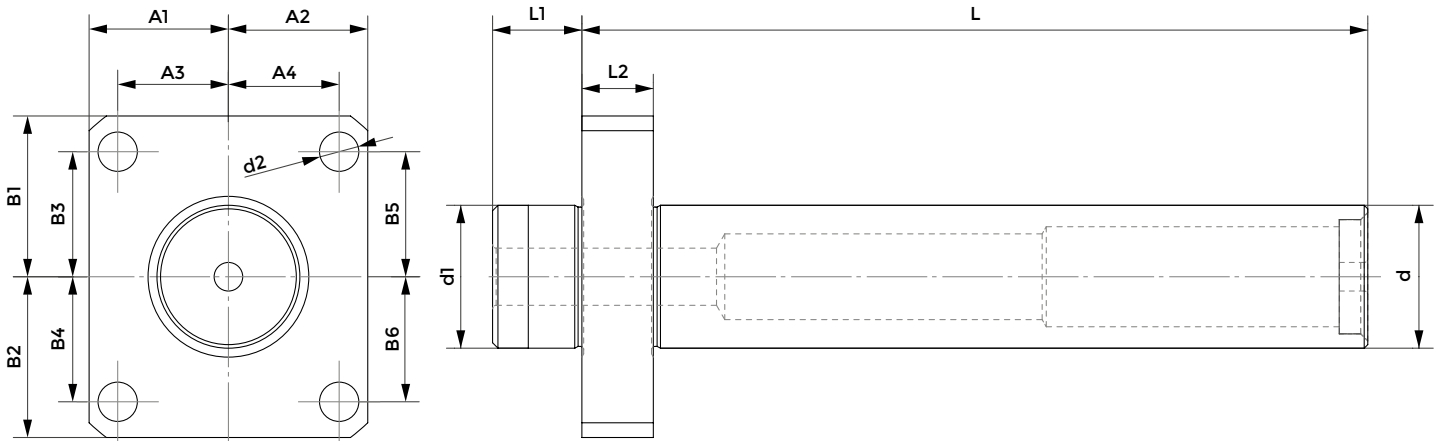
**PIN TOLERANCE:**

DIAMETER	RUNOUT ACCURACY	CILINDRICITY
+/- 0.05	0.005	0.003

**CONSTRUCTIVE FEATURES:**

- Manufactured with casehardening steel
- Casehardened with depth 0,6 - 0,8 mm
- Hardened - Tempered - Black oxide
- Hardness HRC 58, Strength 800-1000 N/mm<sup>2</sup>
- External grinding finish
- Tested 100% with verified measuring instruments

**CONTROL PINS**



**DGM MORI** CTX310ECO-BMT / NZ1500 / NZ2000

COD.	d	L	d1	d2	L1	L2	A1	A2	A3	A4	B1	B2	B3	B4	B5	B6
137-00193	40	220	40	11	25	20	39	39	31	31	45	45	35	35	35	35

**DGM MORI** NLX1500-NLX2000 / NLX2500-NLX3000 / NL2000 (S)MC-2500 (S)MC / NL3000MC (12 STATIONS)

COD.	d	L	d1	d2	L1	L2	A1	A2	A3	A4	B1	B2	B3	B4	B5	B6
137-00194	50	300	60	13	30	25	54	54	42	42	59	59	47	47	47	47

Supplied in suitcase with test certificate

**OKUMA** LB2000 EX (M, MY) / LB2500 EX (M) / LB3000 EX (M, MY) / LB3000 EX (MW, MYW)

COD.	d	L	d1	d2	L1	L2	A1	A2	A3	A4	B1	B2	B3	B4	B5	B6
137-00195	50	300	60	13	30	25	47,5	47,5	36,5	36,5	50	50	26	39	39	26

**OKUMA** LB4000 EX (M, MY)

COD.	d	L	d1	d2	L1	L2	A1	A2	A3	A4	B1	B2	B3	B4	B5	B6
137-00196	50	300	60	13	30	25	50	50	39	39	55	55	40	40	40	40

**DOOSAN** LYNX 220LM

COD.	d	L	d1	d2	L1	L2	A1	A2	A3	A4	B1	B2	B3	B4	B5	B6
137-00197	40	220	45	9	25	20	37,5	37,5	29	29	40	40	29	29	29	29

**DOOSAN** PUMA230-240M-MS-280LM-1500-2000-2500M/MS/S/SY2100 SERIE-TT1500-TT1800MS/SY TL2000-2500LM-MX1600/2100TS / LYNX 300M

COD.	d	L	d1	d2	L1	L2	A1	A2	A3	A4	B1	B2	B3	B4	B5	B6
137-00198	40	220	55	11	30	20	42,5	42,5	32	32	50	50	32	32	32	32

**DOOSAN** PUMA300M/MS-V400M-TT2000SY-TT2500SY / TT2500MS-2600/3100 SERIE MX2000ST-MX2500T/ST/LST-VT450/TM / INVERTURN 3000M

COD.	d	L	d1	d2	L1	L2	A1	A2	A3	A4	B1	B2	B3	B4	B5	B6
137-00199	50	300	65	13	30	25	47,5	47,5	36,5	36,5	55	55	35	35	35	35

**DOOSAN** PUMA400-480M/LM/XLM-VT 750M/TM

COD.	d	L	d1	d2	L1	L2	A1	A2	A3	A4	B1	B2	B3	B4	B5	B6
137-00200	50	300	75	13	30	25	56	56	45	45	57,5	57,5	45	45	45	45

**MAZAK** QTS200M

COD.	d	L	d1	d2	L1	L2	A1	A2	A3	A4	B1	B2	B3	B4	B5	B6
137-00201	40	225	68	9	25	25	42	42	34	34	55	75	45	65	45	65

**MAZAK** QTS300M

COD.	d	L	d1	d2	L1	L2	A1	A2	A3	A4	B1	B2	B3	B4	B5	B6
137-00202	50	325	80	11	27	25	50	50	36	36	74,5	100	60	85	60	85

**BIGLIA** B301/445/470/501(Y-S)/510/545/550/565/650/658/1200/446/465/745/765-B750/1250 16 ST BV210/315

COD.	d	L	d1	d2	L1	L2	A1	A2	A3	A4	B1	B2	B3	B4	B5	B6
137-00209	40	220	55	11	30	20	42	42	31,5	31,5	45	45	32,5	32,5	32,5	32,5

Supplied in suitcase with test certificate

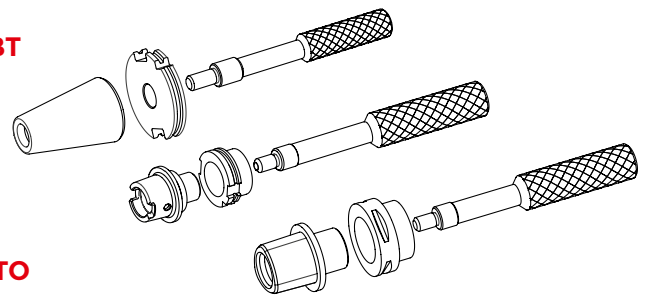
## POSITIONING CONTROL OF THE TOOL CHANGER ARM



TC/BT

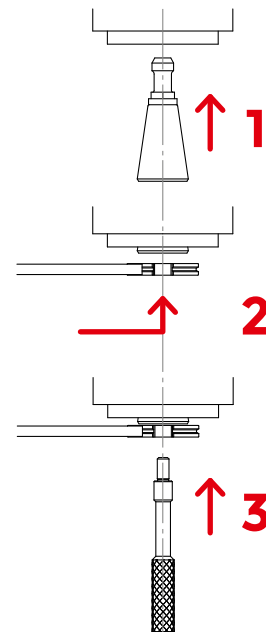
HSK

CAPTO



COD.	CONE
KIT.PRUEFD-TC40	TC40
KIT.PRUEFD-TC50	TC50
KIT.PRUEFD-BT30	BT30
KIT.PRUEFD-BT40	BT40
KIT.PRUEFD-BT50	BT50
KIT.PRUEFD-HSK40	HSK40A
KIT.PRUEFD-HSK63	HSK63A
KIT.PRUEFD-H100	HSK100A
KIT.PRUEFD-C4	C40
KIT.PRUEFD-C5	C50
KIT.PRUEFD-C6	C63
KIT.PRUEFD-C8	C80

1. After assembling the usual pull stud, insert the cone into the spindle manually
2. Set up the flange into the tool changer arm and go closer to the spindle
3. After positioning, try to insert the double-diameter control pin between the two pieces. Adjust the arm accordingly until you get the perfect coaxiality so that the control bar enters the flange and the cone holes with no interference

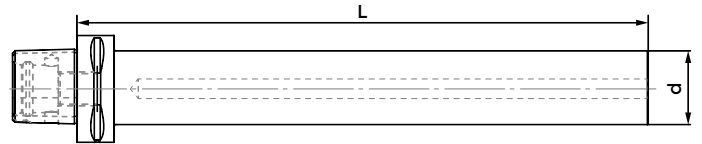


## KIT CONTROL PIN+POSITIONING CONTROL OF THE TOOL CHANGER ARM



COD.	CONE	PIN
KIT-TC40-CP-PR	TC40	TC40H300D40BC
KIT-BT40-CP-PR	BT40	BT40H300D40BC
KIT-HSK63-CP-PR	HSK63	HSK63AH346D40BC
KIT-C63-CP-PR	C63	C63H346D40BC

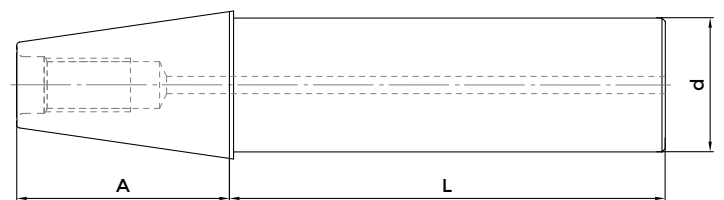
## CONTROL PINS



### DIN26623-1

COD.	CAPTO	d	L
C40180D25BC	C40	25	180
C40H300D35BC	C40	35	300
C50H180D35BC	C50	35	180
C50H300D35BC	C50	35	300
C63H180D40BC	C63	40	180
C63H346D40BC	C63	40	346
C80H346D40BC	C80	40	346

Supplied in suitcase with test certificate

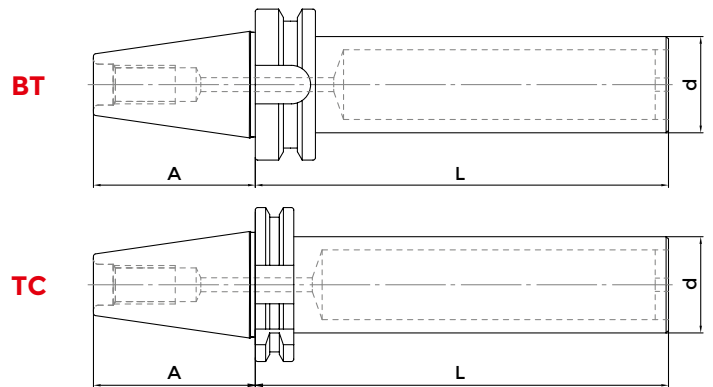


### DIN69871A - DIN2080 - MAS403BT

COD.	DESCRIPTION	ISO	d	L	A
217-71506	TC30/BT30H200D30BC	30	30	200	48,4
217-71515	BT40H200D40BC	40	40	200	65,4
217-71507	BT40H300D40BC	40	40	300	65,4
217-71228	TC40H200D40BC	40	40	200	68,4
217-71201	TC40H300D40BC	40	40	300	68,4
217-71224	TC45H300D50	45	45	300	82,7
217-71230	TC50BT50H200D50BC	50	50	200	101,75
217-71202	TC50/BT50H350D50BC	50	50	350	101,75
217-71209	TC60/BT60H300D63BC	60	63	300	161,8

Supplied in suitcase with test certificate

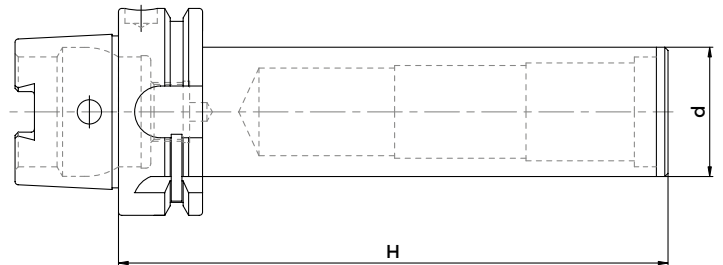
## CONTROL PINS



### DIN 69871A - MAS403BT (DOUBLE CONTACT)

COD.	DESCRIPTION	ISO	d	L	A
217-77201	BT40H200D40BCDK	40	40	200	66,4
217-77204	BT40H300D40BCDK	40	40	300	66,4
217-77205	BT50H350D50BCDK	50	50	350	103,3
217-71228	TC40H200D40BCDK	40	40	200	69,4
217-77101	TC40H300D40BCDK	40	40	300	69,4
217-77102	TC50H350D50BCDK	50	50	350	103,25

Supplied in suitcase with test certificate

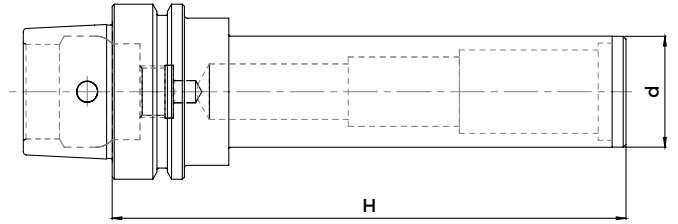


### DIN69893A

COD.	DESCRIPTION	HSK	d	H
217-71720	HSK32AH176D25C	32	25	176
217-71721	HSK40AH180D25BC	40	25	180
217-71702	HSK40AH300D32C	40	32	300
217-71722	HSK50AH236D32C	50	32	236
217-71703	HSK50AH300D40C	50	40	300
217-71735	HSK63AH180D40C	63	40	180
217-71724	HSK63AH346D40C	63	40	346
217-71704	HSK63AH380D40C	63	40	380
217-71911	HSK63CH160D40C	63	40	160
217-71736	HSK100AH180D40C	100	40	180
217-71705	HSK100AH350D40C	100	40	350
217-71729	HSK125AH350D50BC	125	50	350

Supplied in suitcase with test certificate

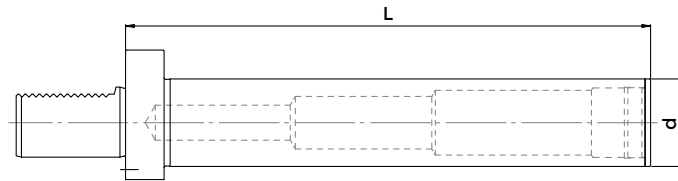
## CONTROL PINS



### DIN 69893+6 F

COD.	DESCRIPTION	HSK	d	H
217-77402	HSK63FH380D40C	63	40	380

Supplied in suitcase with test certificate



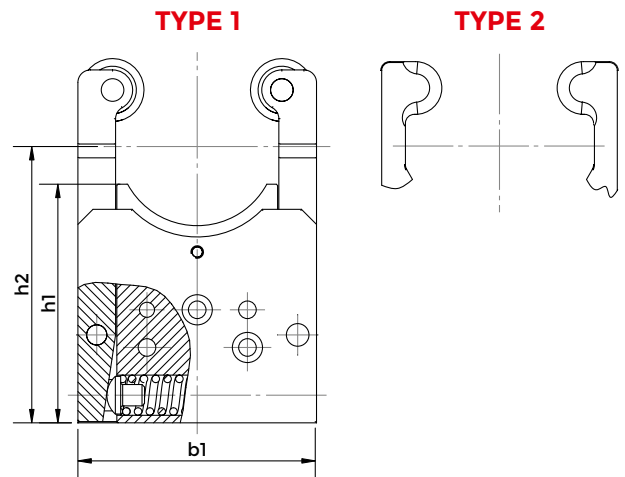
### DIN 69880

COD.	DESCRIPTION	VDI	d	L
118-52501	VDI25L220D30BC	25	30	220
118-53002	VDI30L230D40BC	30	40	230
118-54003	VDI40L300D50BC	40	50	300
118-55002	VDI50L300D50BC	50	50	300
118-56002	VDI60L300D60BC	60	60	300

Supplied in suitcase with test certificate



## CLAMPING FINGERS FOR TOOL MAGAZINES



COD.	Type	b1	h1	h2	type	Max Kg	Max kg	Max kg	Max Tool's length (mm)	Spring Type	Spring Code
						Vertical	Upper Position	Lower Position			
832-018030	HSK63A	95	95	110	1	14,6	7,8	4,1	250	A	MOLLA16X76CM
832-018470	HSK63A	95	95	110	1	21	11,2	5,9	250	B	MOLLA16X76CP
832-018020	HSK100A	135	118	139	2	40	20,5	11	400	A	MOLLA20X102CM
832-018480	HSK100A	135	118	139	2	80	50	27	400	B	MOLLA20X102CP
832-007940	C6	95	91	110	1	15,6	8,3	4,4	250	A	MOLLA16X76CM
832-018490	C6	95	91	110	1	22,3	11,9	6,3	250	B	MOLLA16X76CP
832-018050	C8	105	85	110	1	18,2	10,5	5,1	250	A	MOLLA16X89CM
832-018500	C8	105	85	110	1	29	16,7	8,2	250	B	MOLLA16X89CP
832-007980	KM63	95	100	110	2	14,4	7,7	4	250	A	MOLLA16X76CM
832-018510	KM63	95	100	110	2	20,5	10,9	5,8	250	B	MOLLA16X76CP
832-018520	SK40	95	95	110	1	14,6	7,8	4,1	250	A	MOLLA16X76CM
832-018530	SK40	95	95	110	1	21	11,2	5,9	250	B	MOLLA16X76CP
832-018360	SK50	135	118	139	2	25	13	7	400	C	MOLLA20X102CL
832-018210	SK50	135	118	139	2	40	27	15	400	A	MOLLA20X102CM
832-018540	BT40	95	95	110	1	14,6	7,8	4,1	250	A	MOLLA16X76CM
832-018550	BT40	95	95	110	1	21	11,2	5,9	250	B	MOLLA16X76CP
832-018370	BT50	135	118	139	2	25	13	7	400	C	MOLLA20X102CL
832-018200	BT50	135	118	139	2	61	31	17	400	A	MOLLA20X102CM

### NOTES:

- A : Medium Load Spring
- B : Heavy Load Spring
- C : Light Load Spring

## CLAMPING FINGERS FOR TOOL MAGAZINES

Thanks to our constant and exhaustive co-operation with the most famous machine tool makers we developed a very good experience into the manufacturing of high precision clamping fingers for tool magazines.

Our range includes clampers for the most popular attachments: ISO CONES, HSK, but of course we are open to any new version, according to the customer's drawing.