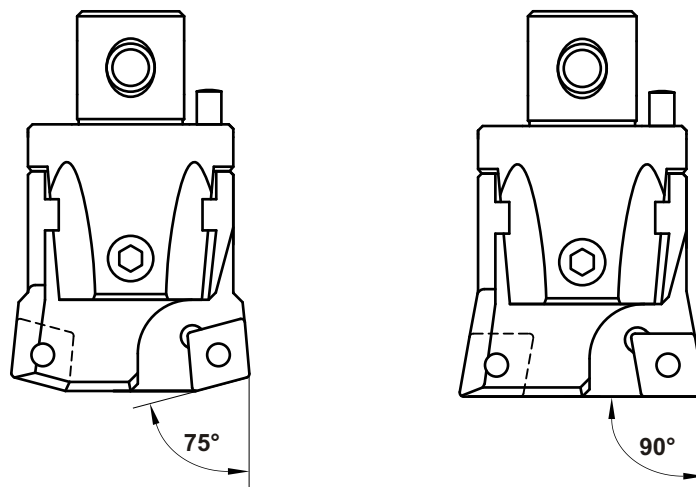


## MODULAR BORING SYSTEM DESCRIPTION

### ROUGH BORING HEADS

These boring heads with two cutting edges do have synchronized adjustment. This advantage means not to waste time in presetting the two cutting edges for a balanced cut (diameter adjustment can be set in the machine directly with a caliper).

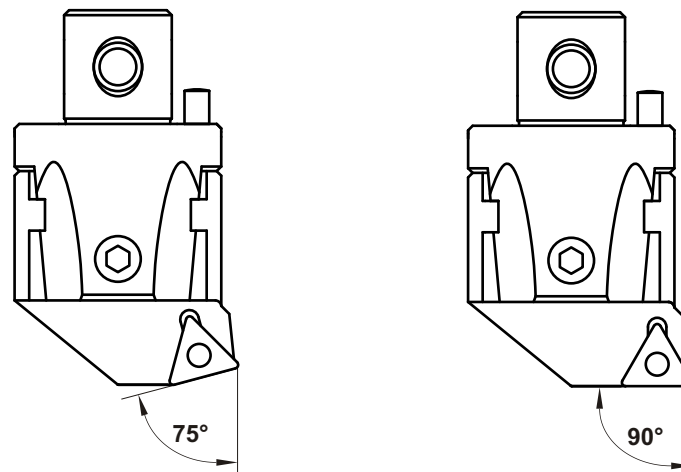
For diameters from 24 mm up to 220 mm, rough boring heads are available in two choices of angle approach: 75° & 90°. And feature various insert pocket geometries to choose.



### FINISH BORING HEADS

These adjustable boring heads do have a read out precision of 0.002 mm Ø.

For diameters from 24 mm up to 220 mm, finish boring heads are available in two choices of angle approach: 75° & 90°. And feature various insert pocket geometries to choose.

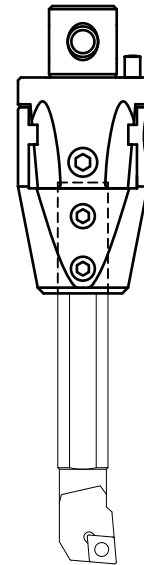


## MODULAR BORING SYSTEM DESCRIPTION

### MICRO BORING HEADS

MICRO boring heads are used in combination with indexable ISO boring bars; these units can produce bores down to 6 mm diameter and up to 38 mm diameter. MICRO boring heads fit the standard Pinzbohr arbors size 27, 32 and 42 (recommended in extra short execution).

Graduated dial and readout precision of 0.002 mm  $\emptyset$ .



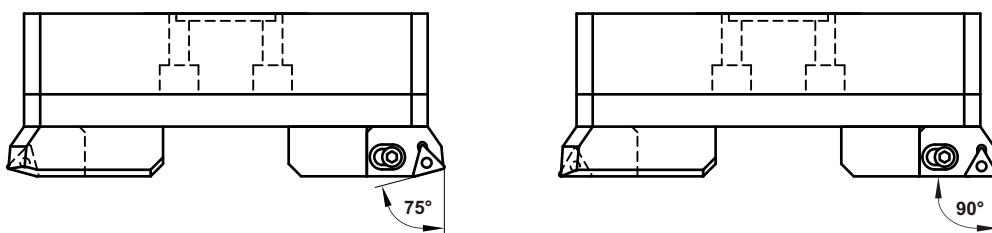
### LARGE DIAMETER BORING HEADS

These boring heads, either rough and finish do have graduated dial and readout precision of 0.002 mm  $\emptyset$  and a diameter range that goes from 220 mm up to 500 mm.

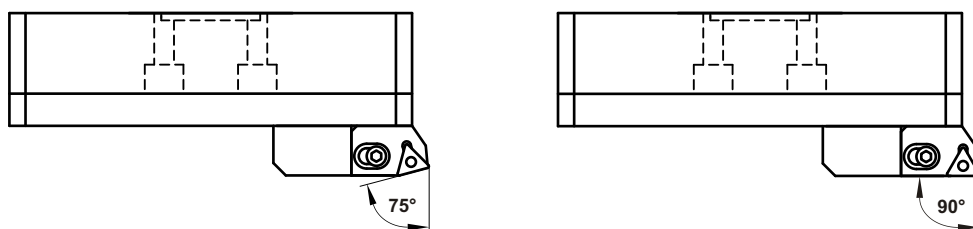
Four (4) facing coupling screws do the assembly of large diameter boring heads to its holder.

By using *ADT 100 050* adaptor it is possible to assemble large diameter boring heads to the standard size *100 200* Pinzbohr arbors to allow the use of longer arbors for deep boring applications.

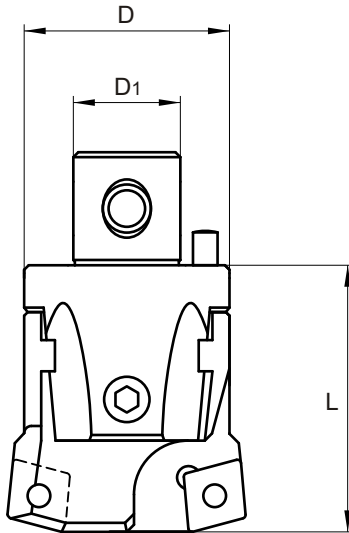
#### ROUGH BORING HEADS



#### FINISH BORING HEADS



## ROUGH HEADS 75° APPROACH



### INTEGRAL POCKET TYPE HEADS SYNCHRONIZED ADJUSTMENT

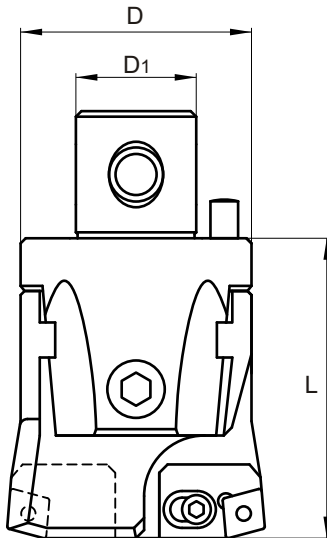


SIZE	Bore Range		Dimension			Product Number	Insert	Torx Screw	Kg.	Adjustment Keys		
	Min	Max	øD	øD1	L					Adj. Key	Torx Key	Locking Key
22	24	30	22	12	34	<b>D 02275 400</b>	CC□□ 0602□□	TT 400	0.100	HK 020	TK 08	HK 030
27	29	40	27	15	42	<b>D 02775 401</b>	CC□□ 0803□□	TT 401	0.170	HK 020	TK 10	HK 040
	29	40	27	15	42	<b>D 02775 409</b>	CC□□ 09T3□□	TT 409	0.170	HK 020	TK 15	HK 040
32	39	50	32	20	45	<b>D 03275 401</b>	CC□□ 0803□□	TT 401	0.270	HK 025	TK 10	HK 040
	39	50	32	20	45	<b>D 03275 409</b>	CC□□ 09T3□□	TT 409	0.270	HK 025	TK 15	HK 040
42	49	65	42	24	56	<b>D 04275 300</b>	TC□□ 16T3□□	TT 300	0.550	HK 030	TK 15	HK 050
	49	65	42	24	56	<b>D 04275 402</b>	CC□□ 1204□□	TT 402	0.550	HK 030	TK 20	HK 050
	53	65	42	24	56	<b>D 04275 402 N</b>	CN□□ 1204□□ R	TT 402 N	0.550	HK 030	HK 025	HK 050
54	63	82	54	28	66	<b>D 05475 300</b>	TC□□ 16T3□□	TT 300	1.080	HK 030	TK 15	HK 060
	63	82	54	28	66	<b>D 05475 402</b>	CC□□ 1204□□	TT 402	1.080	HK 030	TK 20	HK 060
	63	82	54	28	66	<b>D 05475 402 N</b>	CN□□ 1204□□ R	TT 402 N	1.080	HK 030	HK 025	HK 060

☐ NOMENCLATURE FOR INSERT SELECTION IN PAGE 53

☐ TORX SCREW DETAILS IN PAGE 52

## ROUGH HEADS 75° APPROACH



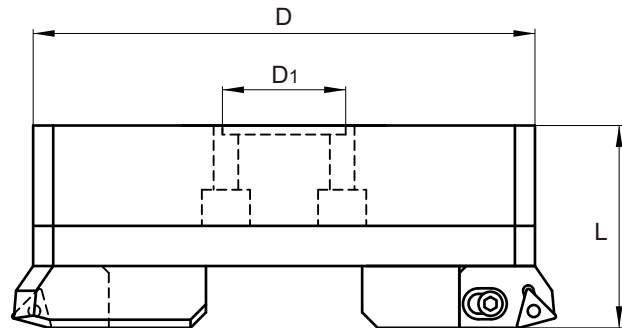
### CARTRIDGE TYPE HEADS SYNCHRONIZED ADJUSTMENT



SIZE	Bore Range		Dimension			Product Number	Cartridge	Torx Screw	Kg.	Adj. Key		
	Min	Max	øD	øD1	L					Torx Key	Locking Key	
68	80	102	68	36	86	<b>D 06875 300</b>	2CT 75 300	TT 409	2.180	HK 040	TK 15	HK 080
	80	102	68	36	86	<b>D 06875 402</b>	2CT 75 402	TT 116	2.180	HK 040	TK 20	HK 080
	80	102	68	36	86	<b>D 06875 402 N</b>	2CT 75 402 N	TT 402 N	2.180	HK 040	HK 025	HK 080
85	100	125	85	50	100	<b>D 08575 300</b>	3CT 75 300	TT 300	4.150	HK 050	TK 15	HK 080
	100	125	85	50	100	<b>D 08575 402</b>	3CT 75 402	TT 402	4.150	HK 050	TK 20	HK 080
	100	125	85	50	100	<b>D 08575 402 N</b>	3CT 75 402 N	TT 402 N	4.150	HK 050	HK 025	HK 080
100	125	160	110	60	100	<b>D 10075 300</b>	3CT 75 300	TT 300	6.580	HK 050	TK 15	HK 080
	125	160	110	60	100	<b>D 10075 402</b>	3CT 75 402	TT 402	6.580	HK 050	TK 20	HK 080
	125	160	110	60	100	<b>D 10075 402 N</b>	3CT 75 402 N	TT 402 N	6.580	HK 050	HK 025	HK 080
200	160	220	145	60	100	<b>D 20075 300</b>	3CT 75 300	TT 300	8.950	HK 050	TK 15	HK 080
	160	220	145	60	100	<b>D 20075 402</b>	3CT 75 402	TT 402	8.950	HK 050	TK 20	HK 080
	160	220	145	60	100	<b>D 20075 402 N</b>	3CT 75 402 N	TT 402 N	8.950	HK 050	HK 025	HK 080

FULL CARTRIDGE INFORMATION (INCLUDING INSERT SIZE) IN PAGE 23

# ROUGH HEADS 75° APPROACH



ADJUSTING ACCURACY 0.002 mm Ø



**LARGE DIAMETER CARTRIDGE TYPE HEADS** SYNCHRONIZED ADJUSTMENT

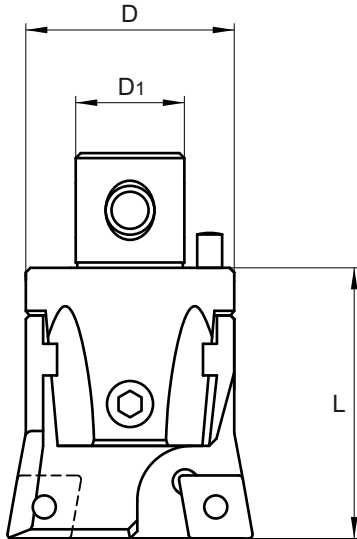


SIZE	Bore Range		Dimension			Product Number	Cartridge	Torx Screw	Kg.	Adjustment		
	Min	Max	øD	øD1	L					Adj. Key	Torx Key	Locking Key
300	220	320	202	60	90	<b>D 30075 300</b>	3CT 75 300	TT 300	9.370	HK 050	TK 15	HK 040
	220	320	202	60	90	<b>D 30075 402</b>	3CT 75 402	TT 402	9.370	HK 050	TK 20	HK 040
	220	320	202	60	90	<b>D 30075 402 N</b>	3CT 75 402 N	TT 402 N	9.370	HK 050	HK 025	HK 040
400	290	400	272	60	90	<b>D 40075 300</b>	3CT 75 300	TT 300	12.980	HK 050	TK 15	HK 040
	290	400	272	60	90	<b>D 40075 402</b>	3CT 75 402	TT 402	12.980	HK 050	TK 20	HK 040
	290	400	272	60	90	<b>D 40075 402 N</b>	3CT 75 402 N	TT 402 N	12.980	HK 050	HK 025	HK 040
500	370	500	352	60	90	<b>D 50075 300</b>	3CT 75 300	TT 300	16.740	HK 050	TK 15	HK 040
	370	500	352	60	90	<b>D 50075 402</b>	3CT 75 402	TT 402	16.740	HK 050	TK 20	HK 040
	370	500	352	60	90	<b>D 50075 402 N</b>	3CT 75 402 N	TT 402 N	16.740	HK 050	HK 025	HK 040

FULL CARTRIDGE INFORMATION (INCLUDING INSERT SIZE) IN PAGE 23

ARBOR ASSEMBLY SYSTEM FOR LARGE BORING HEADS IN PAGES 46 AND 47

## ROUGH HEADS 90° APPROACH



### INTEGRAL POCKET TYPE HEADS SYNCHRONIZED ADJUSTMENT

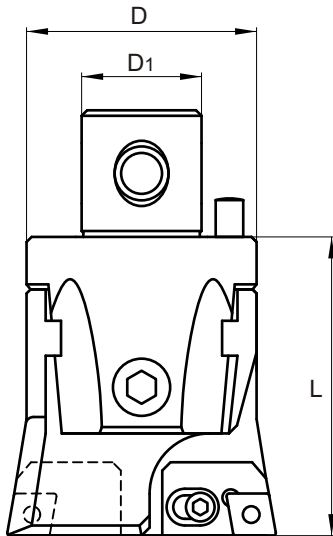


SIZE	Bore Range		Dimension			Product Number	Insert	Torx Screw	Kg.	Adj. Key		
	Min	Max	øD	øD1	L					Torx Key	Locking Key	
22	24	30	22	12	34	<b>D 02290 400</b>	CC□□ 0602□□	TT 400	0.100	HK 020	TK 08	HK 030
27	29	40	27	15	42	<b>D 02790 401</b>	CC□□ 0803□□	TT 401	0.170	HK 020	TK 10	HK 040
	29	40	27	15	42	<b>D 02790 409</b>	CC□□ 09T3□□	TT 409	0.170	HK 020	TK 15	HK 040
32	39	50	32	20	45	<b>D 03290 401</b>	CC□□ 0803□□	TT 401	0.270	HK 025	TK 10	HK 040
	39	50	32	20	45	<b>D 03290 409</b>	CC□□ 09T3□□	TT 409	0.270	HK 025	TK 15	HK 040
42	49	65	42	24	56	<b>D 04290 300</b>	TC□□ 16T3□□	TT 300	0.550	HK 030	TK 15	HK 050
	49	65	42	24	56	<b>D 04290 402</b>	CC□□ 1204□□	TT 402	0.550	HK 030	TK 20	HK 050
	53	65	42	24	56	<b>D 04290 402 N</b>	CN□□ 1204□□ L	TT 402 N	0.550	HK 030	HK 025	HK 050
54	63	82	54	28	66	<b>D 05490 300</b>	TC□□ 16T3□□	TT 300	1.080	HK 030	TK 15	HK 060
	63	82	54	28	66	<b>D 05490 402</b>	CC□□ 1204□□	TT 402	1.080	HK 030	TK 20	HK 060
	63	82	54	28	66	<b>D 05490 402 N</b>	CN□□ 1204□□ L	TT 402 N	1.080	HK 030	HK 025	HK 060

☐ NOMENCLATURE FOR INSERT SELECTION IN PAGE 53

☐ TORX SCREW DETAILS IN PAGE 52

# ROUGH HEADS 90° APPROACH



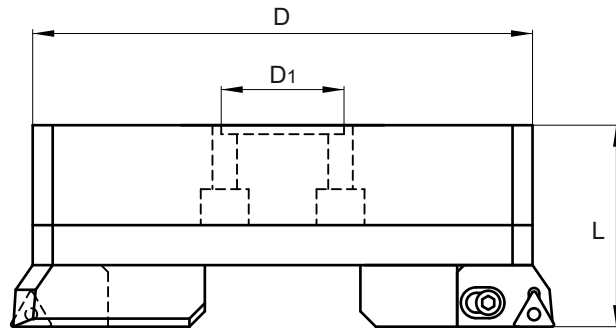
## CARTRIDGE TYPE HEADS SYNCHRONIZED ADJUSTMENT



SIZE	Bore Range		Dimension			Product Number	Cartridge	Torx Screw	Kg.	Adj. Key		
	Min	Max	øD	øD1	L					Torx Key	Locking Key	
68	80	102	68	36	86	<b>D 06890 300</b>	2CT 90 300	TT 409	2.180	HK 040	TK 15	HK 080
	80	102	68	36	86	<b>D 06890 402</b>	2CT 90 402	TT 116	2.180	HK 040	TK 20	HK 080
	80	102	68	36	86	<b>D 06890 402 N</b>	2CT 90 402 N	TT 402 N	2.180	HK 040	HK 025	HK 080
85	100	125	85	50	100	<b>D 08590 300</b>	3CT 90 300	TT 300	4.150	HK 050	TK 15	HK 080
	100	125	85	50	100	<b>D 08590 402</b>	3CT 90 402	TT 402	4.150	HK 050	TK 20	HK 080
	100	125	85	50	100	<b>D 08590 402 N</b>	3CT 90 402 N	TT 402 N	4.150	HK 050	HK 025	HK 080
100	125	160	110	60	100	<b>D 10090 300</b>	3CT 90 300	TT 300	6.580	HK 050	TK 15	HK 080
	125	160	110	60	100	<b>D 10090 402</b>	3CT 90 402	TT 402	6.580	HK 050	TK 20	HK 080
	125	160	110	60	100	<b>D 10090 402 N</b>	3CT 90 402 N	TT 402 N	6.580	HK 050	HK 025	HK 080
200	160	220	145	60	100	<b>D 20090 300</b>	3CT 90 300	TT 300	8.950	HK 050	TK 15	HK 080
	160	220	145	60	100	<b>D 20090 402</b>	3CT 90 402	TT 402	8.950	HK 050	TK 20	HK 080
	160	220	145	60	100	<b>D 20090 402 N</b>	3CT 90 402 N	TT 402 N	8.950	HK 050	HK 025	HK 080

FULL CARTRIDGE INFORMATION (INCLUDING INSERT SIZE) IN PAGE 23

## ROUGH HEADS 90° APPROACH



ADJUSTING ACCURACY 0.002 mm Ø



**LARGE DIAMETER CARTRIDGE TYPE HEADS** SYNCHRONIZED ADJUSTMENT



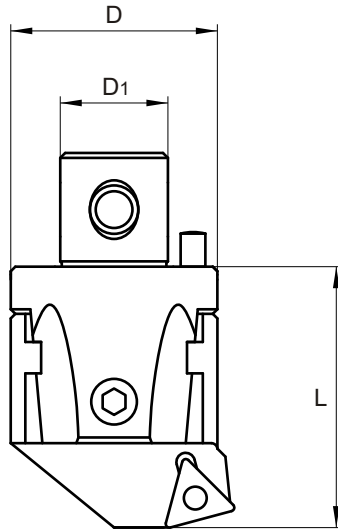
SIZE	Bore Range		Dimension			Product Number	Cartridge	Torx Screw	Kg.	Adjustment		
	Min	Max	øD	øD1	L					Adj. Key	Torx Key	Locking Key
300	220	320	202	60	90	<b>D 30090 300</b>	3CT 90 300	TT 300	9.370	HK 050	TK 15	HK 040
	220	320	202	60	90	<b>D 30090 402</b>	3CT 90 402	TT 402	9.370	HK 050	TK 20	HK 040
	220	320	202	60	90	<b>D 30090 402 N</b>	3CT 90 402 N	TT 402 N	9.370	HK 050	HK 025	HK 040
400	290	400	272	60	90	<b>D 40090 300</b>	3CT 90 300	TT 300	12.980	HK 050	TK 15	HK 040
	290	400	272	60	90	<b>D 40090 402</b>	3CT 90 402	TT 402	12.980	HK 050	TK 20	HK 040
	290	400	272	60	90	<b>D 40090 402 N</b>	3CT 90 402 N	TT 402 N	12.980	HK 050	HK 025	HK 040
500	370	500	352	60	90	<b>D 50090 300</b>	3CT 90 300	TT 300	16.740	HK 050	TK 15	HK 040
	370	500	352	60	90	<b>D 50090 402</b>	3CT 90 402	TT 402	16.740	HK 050	TK 20	HK 040
	370	500	352	60	90	<b>D 50090 402 N</b>	3CT 90 402 N	TT 402 N	16.740	HK 050	HK 025	HK 040

FULL CARTRIDGE INFORMATION (INCLUDING INSERT SIZE) IN PAGE 23

ARBOR ASSEMBLY SYSTEM FOR LARGE BORING HEADS IN PAGES 46 AND 47



# FINISH HEADS 75° APPROACH



## INTEGRAL POCKET TYPE HEADS ADJUSTING ACCURACY 0.002 mm Ø

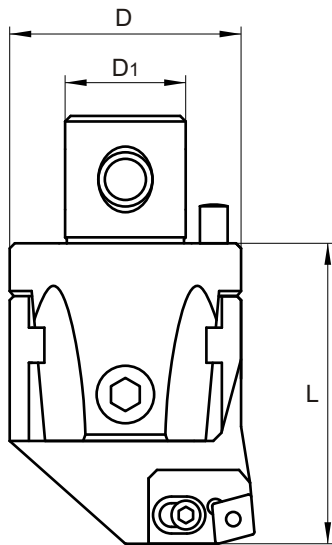


SIZE	Bore Range		Dimension			Product Number	Insert	Torx Screw	Kg.	Adj. Key		
	Min	Max	øD	øD1	L					Torx Key	Locking Key	
22	24	30	22	12	34	A 02275 310	TP □□ 0902□□	TT 400	0.100	HK 020	TK 08	HK 030
	24	30	22	12	34	A 02275 400	CC□□ 0602□□	TT 400	0.100	HK 020	TK 08	HK 030
27	29	40	27	15	42	A 02775 310	TP □□ 0902□□	TT 400	0.160	HK 020	TK 08	HK 040
	29	40	27	15	42	A 02775 401	CC□□ 0803□□	TT 401	0.160	HK 020	TK 10	HK 040
	29	40	27	15	42	A 02775 409	CC□□ 09T3□□	TT 409	0.160	HK 020	TK 15	HK 040
32	39	50	32	20	45	A 03275 310	TP □□ 0902□□	TT 400	0.250	HK 025	TK 08	HK 040
	39	50	32	20	45	A 03275 401	CC□□ 0803□□	TT 401	0.250	HK 025	TK 10	HK 040
	39	50	32	20	45	A 03275 409	CC□□ 09T3□□	TT 409	0.250	HK 025	TK 15	HK 040
42	49	65	42	24	56	A 04275 300	TC□□ 16T3□□	TT 300	0.510	HK 030	TK 15	HK 050
	49	65	42	24	56	A 04275 311	TP □□ 1103□□	TT 401	0.510	HK 030	TK 10	HK 050
54	63	82	54	28	66	A 05475 300	TC□□ 16T3□□	TT 300	1.020	HK 030	TK 15	HK 060
	63	82	54	28	66	A 05475 311	TP □□ 1103□□	TT 401	1.020	HK 030	TK 10	HK 060

📄 NOMENCLATURE FOR INSERT SELECTION IN PAGE 53

🔧 TORX SCREW DETAILS IN PAGE 52

## FINISH HEADS 75° APPROACH



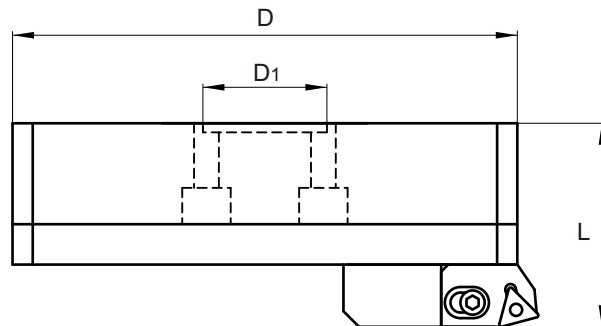
### CARTRIDGE TYPE HEADS ADJUSTING ACCURACY 0.002 mm Ø



SIZE	Bore Range		Dimension			Product Number	Cartridge	Torx Screw	Kg.	Adj. Key		
	Min	Max	øD	øD1	L					Torx Key	Locking Key	
68	80	102	68	36	86	<b>A 06875 300</b>	2CT 75 300	TT 409	2.050	HK 050	TK 15	HK 080
	80	102	68	36	86	<b>A 06875 311</b>	2CT 75 311	TT 401	2.050	HK 050	TK 10	HK 080
	80	102	68	36	86	<b>A 06875 402</b>	2CT 75 402	TT 116	2.050	HK 050	TK 20	HK 080
	80	102	68	36	86	<b>A 06875 402 N</b>	2CT 75 402 N	TT 402 N	2.050	HK 050	HK 025	HK 080
85	100	125	85	50	100	<b>A 08575 300</b>	3CT 75 300	TT 300	3.930	HK 060	TK 15	HK 080
	100	125	85	50	100	<b>A 08575 311</b>	3CT 75 311	TT 401	3.930	HK 060	TK 10	HK 080
	100	125	85	50	100	<b>A 08575 402</b>	3CT 75 402	TT 402	3.930	HK 060	TK 20	HK 080
	100	125	85	50	100	<b>A 08575 402 N</b>	3CT 75 402 N	TT 402 N	3.930	HK 060	HK 025	HK 080
100	125	160	110	60	100	<b>A 10075 300</b>	3CT 75 300	TT 300	6.250	HK 060	TK 15	HK 080
	125	160	110	60	100	<b>A 10075 311</b>	3CT 75 311	TT 401	6.250	HK 060	TK 10	HK 080
	125	160	110	60	100	<b>A 10075 402</b>	3CT 75 402	TT 402	6.250	HK 060	TK 20	HK 080
	125	160	110	60	100	<b>A 10075 402 N</b>	3CT 75 402 N	TT 402 N	6.250	HK 060	HK 025	HK 080
200	160	220	145	60	100	<b>A 20075 300</b>	3CT 75 300	TT 300	8.330	HK 060	TK 15	HK 080
	160	220	145	60	100	<b>A 20075 311</b>	3CT 75 311	TT 401	8.330	HK 060	TK 10	HK 080
	160	220	145	60	100	<b>A 20075 402</b>	3CT 75 402	TT 402	8.330	HK 060	TK 20	HK 080
	160	220	145	60	100	<b>A 20075 402 N</b>	3CT 75 402 N	TT 402 N	8.330	HK 060	HK 025	HK 080

FULL CARTRIDGE INFORMATION (INCLUDING INSERT SIZE) IN PAGE 23

# FINISH HEADS 75° APPROACH



## LARGE DIAMETER CARTRIDGE TYPE HEADS ADJUSTING ACCURACY 0.002 mm Ø

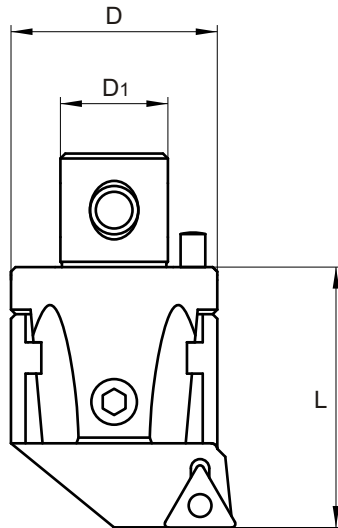


SIZE	Bore Range		Dimension			Product Number	Cartridge	Torx Screw	Kg.	Key		
	Min	Max	øD	øD1	L					Adj. Key	Torx Key	Locking Key
300	220	320	202	60	90	A 30075 300	3CT 75 300	TT 300	8.750	HK 050	TK 15	HK 040
	220	320	202	60	90	A 30075 311	3CT 75 311	TT 401	8.750	HK 050	TK 10	HK 040
	220	320	202	60	90	A 30075 402	3CT 75 402	TT 402	8.750	HK 050	TK 20	HK 040
	220	320	202	60	90	A 30075 402 N	3CT 75 402 N	TT 402 N	8.750	HK 050	HK 025	HK 040
400	290	400	272	60	90	A 40075 300	3CT 75 300	TT 300	12.200	HK 050	TK 15	HK 040
	290	400	272	60	90	A 40075 311	3CT 75 311	TT 401	12.200	HK 050	TK 10	HK 040
	290	400	272	60	90	A 40075 402	3CT 75 402	TT 402	12.200	HK 050	TK 20	HK 040
	290	400	272	60	90	A 40075 402 N	3CT 75 402 N	TT 402 N	12.200	HK 050	HK 025	HK 040
500	370	500	352	60	90	A 50075 300	3CT 75 300	TT 300	16.310	HK 050	TK 15	HK 040
	370	500	352	60	90	A 50075 311	3CT 75 311	TT 401	16.310	HK 050	TK 10	HK 040
	370	500	352	60	90	A 50075 402	3CT 75 402	TT 402	16.310	HK 050	TK 20	HK 040
	370	500	352	60	90	A 50075 402 N	3CT 75 402 N	TT 402 N	16.310	HK 050	HK 025	HK 040

📄 [FULL CARTRIDGE INFORMATION \(INCLUDING INSERT SIZE\) IN PAGE 23](#)

📄 [ARBOR ASSEMBLY SYSTEM FOR LARGE BORING HEADS IN PAGES 46 AND 47](#)

## FINISH HEADS 90° APPROACH



### INTEGRAL POCKET TYPE HEADS ADJUSTING ACCURACY 0.002 mm Ø

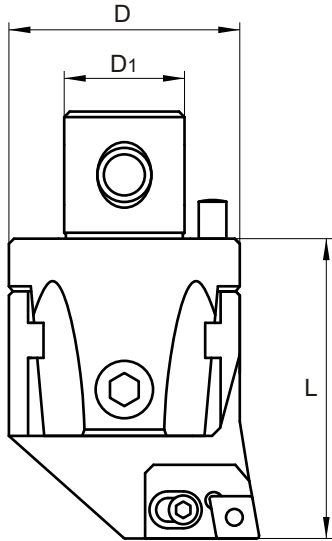


SIZE	Bore Range		Dimension			Product Number	Insert	Torx Screw	Kg.	Adjustment Keys		
	Min	Max	øD	øD1	L					Adj. Key	Torx Key	Locking Key
22	24	30	22	12	34	A 02290 310	TP□□ 0902□□	TT 400	0.100	HK 020	TK 08	HK 030
	24	30	22	12	34	A 02290 400	CC□□ 0602□□	TT 400	0.100	HK 020	TK 08	HK 030
27	29	40	27	15	42	A 02790 310	TP□□ 0902□□	TT 400	0.160	HK 020	TK 08	HK 040
	29	40	27	15	42	A 02790 401	CC□□ 0803□□	TT 401	0.160	HK 020	TK 10	HK 040
	29	40	27	15	42	A 02790 409	CC□□ 09T3□□	TT 409	0.160	HK 020	TK 15	HK 040
32	39	50	32	20	45	A 03290 300	TC□□ 16T3□□	TT 409	0.250	HK 025	TK 15	HK 040
	39	50	32	20	45	A 03290 310	TP□□ 0902□□	TT 400	0.250	HK 025	TK 08	HK 040
	39	50	32	20	45	A 03290 401	CC□□ 0803□□	TT 401	0.250	HK 025	TK 10	HK 040
	39	50	32	20	45	A 03290 409	CC□□ 09T3□□	TT 409	0.250	HK 025	TK 15	HK 040
42	49	65	42	24	56	A 04290 300	TC□□ 16T3□□	TT 300	0.510	HK 030	TK 15	HK 050
	49	65	42	24	56	A 04290 311	TP□□ 1103□□	TT 401	0.510	HK 030	TK 10	HK 050
	49	65	42	24	56	A 04290 402	CC□□ 1204□□	TT 402	0.510	HK 030	TK 20	HK 050
	53	65	42	24	56	A 04290 402 N	CN□□ 1204□□ L	TT 402 N	0.510	HK 030	HK 025	HK 050
54	63	82	54	28	66	A 05490 300	TC□□ 16T3□□	TT 300	1.020	HK 030	TK 15	HK 060
	63	82	54	28	66	A 05490 311	TP□□ 1103□□	TT 401	1.020	HK 030	TK 10	HK 060
	63	82	54	28	66	A 05490 402	CC□□ 1204□□	TT 402	1.020	HK 030	TK 20	HK 060
	63	82	54	28	66	A 05490 402 N	CN□□ 1204□□ L	TT 402 N	1.020	HK 030	HK 025	HK 060

📄 NOMENCLATURE FOR INSERT SELECTION IN PAGE 53

🔑 TORX SCREW DETAILS IN PAGE 52

## FINISH HEADS 90° APPROACH



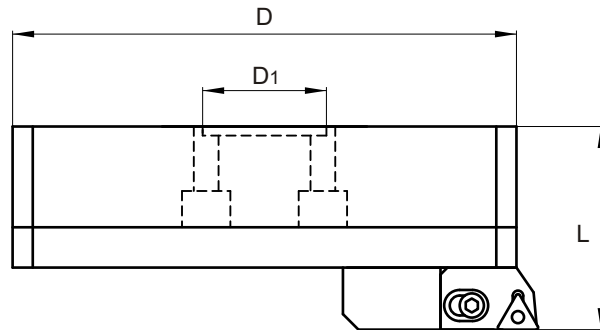
### CARTRIDGE TYPE HEADS ADJUSTING ACCURACY 0.002 mm Ø



SIZE	Bore Range		Dimension			Product Number	Cartridge	Torx Screw	Kg.	Adjusting Accuracy		
	Min	Max	øD	øD1	L					Adj. Key	Torx Key	Locking Key
68	80	102	68	36	86	A 06890 300	2CT 90 300	TT 409	2.050	HK 050	TK 15	HK 080
	80	102	68	36	86	A 06890 311	2CT 90 311	TT 401	2.050	HK 050	TK 10	HK 080
	80	102	68	36	86	A 06890 402	2CT 90 402	TT 116	2.050	HK 050	TK 20	HK 080
	80	102	68	36	86	A 06890 402 N	2CT 90 402 N	TT 402 N	2.050	HK 050	HK 025	HK 080
85	100	125	85	50	100	A 08590 300	3CT 90 300	TT 300	3.930	HK 060	TK 15	HK 080
	100	125	85	50	100	A 08590 311	3CT 90 311	TT 401	3.930	HK 060	TK 10	HK 080
	100	125	85	50	100	A 08590 402	3CT 90 402	TT 402	3.930	HK 060	TK 20	HK 080
	100	125	85	50	100	A 08590 402 N	3CT 90 402 N	TT 402 N	3.930	HK 060	HK 025	HK 080
100	125	160	110	60	100	A 10090 300	3CT 90 300	TT 300	6.250	HK 060	TK 15	HK 080
	125	160	110	60	100	A 10090 311	3CT 90 311	TT 401	6.250	HK 060	TK 10	HK 080
	125	160	110	60	100	A 10090 402	3CT 90 402	TT 402	6.250	HK 060	TK 20	HK 080
	125	160	110	60	100	A 10090 402 N	3CT 90 402 N	TT 402 N	6.250	HK 060	HK 025	HK 080
200	160	220	145	60	100	A 20090 300	3CT 90 300	TT 300	8.330	HK 060	TK 15	HK 080
	160	220	145	60	100	A 20090 311	3CT 90 311	TT 401	8.330	HK 060	TK 10	HK 080
	160	220	145	60	100	A 20090 402	3CT 90 402	TT 402	8.330	HK 060	TK 20	HK 080
	160	220	145	60	100	A 20090 402 N	3CT 90 402 N	TT 402 N	8.330	HK 060	HK 025	HK 080

📄 FULL CARTRIDGE INFORMATION (INCLUDING INSERT SIZE) IN PAGE 23

# FINISH HEADS 90° APPROACH



## LARGE DIAMETER CARTRIDGE TYPE HEADS ADJUSTING ACCURACY 0.002 mm Ø



SIZE	Bore Range		Dimension			Product Number	Cartridge	Torx Screw	Kg.	Key		
	Min	Max	øD	øD1	L					Adj. Key	Torx Key	Locking Key
300	220	320	202	60	90	A 30090 300	3CT 90 300	TT 300	8.750	HK 050	TK 15	HK 040
	220	320	202	60	90	A 30090 311	3CT 90 311	TT 401	8.750	HK 050	TK 10	HK 040
	220	320	202	60	90	A 30090 402	3CT 90 402	TT 402	8.750	HK 050	TK 20	HK 040
	220	320	202	60	90	A 30090 402 N	3CT 90 402 N	TT 402 N	8.750	HK 050	HK 025	HK 040
400	290	400	272	60	90	A 40090 300	3CT 90 300	TT 300	12.200	HK 050	TK 15	HK 040
	290	400	272	60	90	A 40090 311	3CT 90 311	TT 401	12.200	HK 050	TK 10	HK 040
	290	400	272	60	90	A 40090 402	3CT 90 402	TT 402	12.200	HK 050	TK 20	HK 040
	290	400	272	60	90	A 40090 402 N	3CT 90 402 N	TT 402 N	12.200	HK 050	HK 025	HK 040
500	370	500	352	60	90	A 50090 300	3CT 90 300	TT 300	16.310	HK 050	TK 15	HK 040
	370	500	352	60	90	A 50090 311	3CT 90 311	TT 401	16.310	HK 050	TK 10	HK 040
	370	500	352	60	90	A 50090 402	3CT 90 402	TT 402	16.310	HK 050	TK 20	HK 040
	370	500	352	60	90	A 50090 402 N	3CT 90 402 N	TT 402 N	16.310	HK 050	HK 025	HK 040

📄 [FULL CARTRIDGE INFORMATION \(INCLUDING INSERT SIZE\) IN PAGE 23](#)

📄 [ARBOR ASSEMBLY SYSTEM FOR LARGE BORING HEADS IN PAGES 46 AND 47](#)