

# KH-E

## Quick Change Stub Holder

BT

CAT

AHO

HSK-A/E/F/C

HSK-T

UTS

Specialized Machine

Related Equipment

Bush & Chamfering Drill

Stub Holder

Tapping Chuck

Tap Adapter

Adjustable Adapter

Endmill Chuck

Straight Drill Chuck

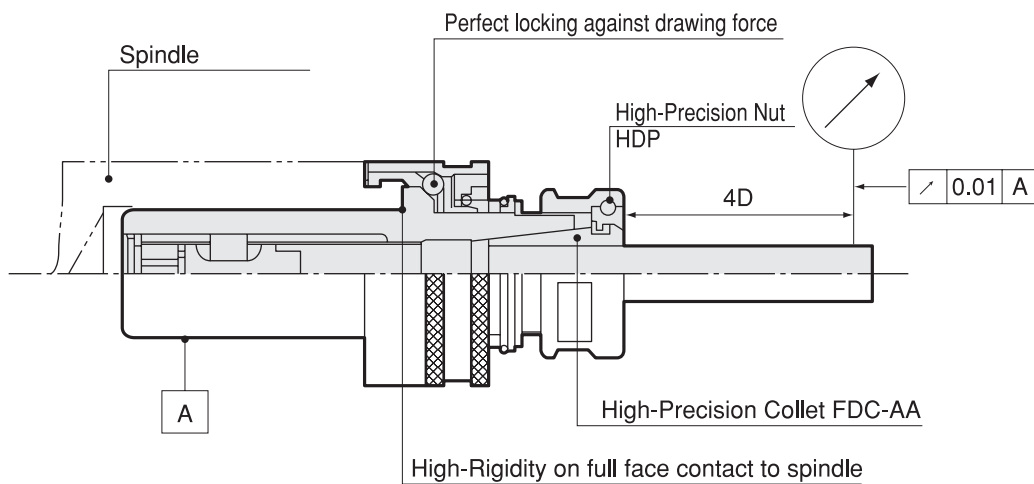
Floating Holder

### Feature

Endmilling, which was not available before, becomes possible.

**High Rigidity** Owing to the locking function incorporated, the holder doesn't come off spindle even though drawing force works.

**High Precision** As the high precision collet is employed, the runout is available within 10 microns at  $4 \times D$  ( $4 \times$  tool shank dia. distance from the holder nose).

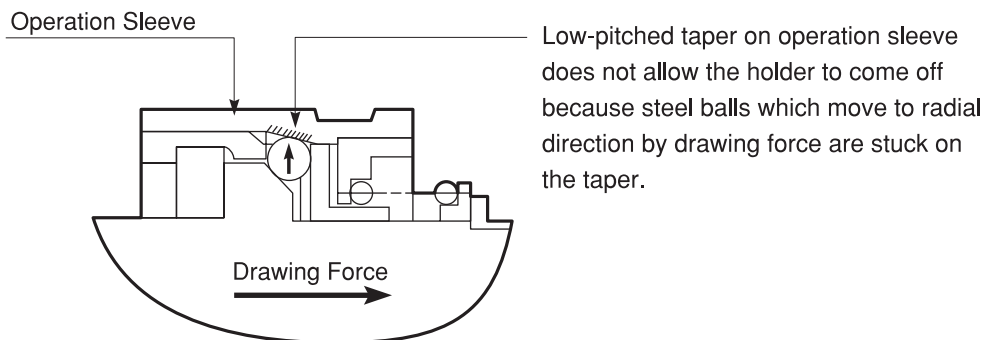


### Significant Difference between KH-E and other stub holders

Strong chucking prevents pull out of cutting tool



Locking mechanism stops pulling force caused by spiral cutting tools such as end mill.

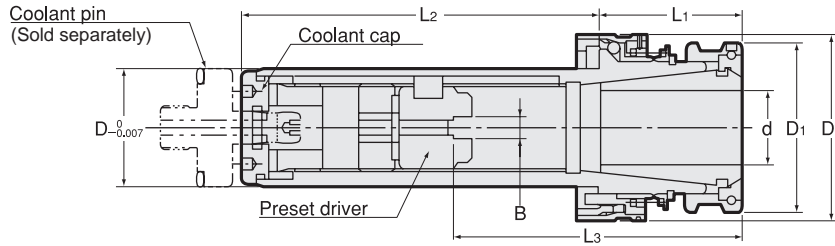


Enlarged Locking Function

**Note** ● For center-thru coolant feed, select KH-EC1 or KH-EC2 models on page

# KH-EC2

Quick Change Stub Holder ( For Low Coolant Pressure )



## KHB-EC2 Holder body



Code	Model	B	Collet I.D. d	L3	D	D1	D2	L1	L2	kg	Max. Coolant	Coolant pin	Collet
305614 *** 000	KHB -14EC2 /00007	0	3.0 ~ 7.0	20 ~ 45	14	23	26.3	34	50	0.1	5MPa	KH-14EC-P	FDC-07-OH or C
	/02407	2.4	3.1 ~ 5.0	24 ~ 48									
	/03007	3.0	5.1 ~ 6.0	25 ~ 48									
	/04007	4.0	6.1 ~ 7.0	27 ~ 48									
305616 *** 000	KHB -16EC2 /00009	0	3.0 ~ 9.0	29 ~ 47	16	26	32	35	55	0.2	5MPa	KH-16EC-P	FDC-09-OH or C
	/02409	2.4	3.1 ~ 5.0	32 ~ 50									
	/03009	3.0	5.1 ~ 6.0	34 ~ 52									
	/04009	4.0	6.1 ~ 9.0	34 ~ 52									
305619 *** 000	KHB -19EC2 /00009	0	3.0 ~ 9.0	29 ~ 52	19	26	35	35	60	0.2	5MPa	KH-19EC-P	FDC-09-OH or C
/02409	2.4	3.1 ~ 5.0	32 ~ 55										
305620 *** 000	KHB -20EC2 /03009	3.0	5.1 ~ 6.0	34 ~ 57	20	26	35	35	60	0.2	5MPa	KH-20EC-P	FDC-09-OH or C
	/04009	4.0	6.1 ~ 9.0	34 ~ 57									
305622 *** 000	KHB -22EC2 /00012	0	3.0 ~ 12	35 ~ 62	22	32	38	35	70	0.3	4MPa	KH-22EC-P	FDC-12-OH or C
	/02412	2.4	3.1 ~ 5.0	34 ~ 61									
	/03012	3.0	5.1 ~ 6.0	35 ~ 61									
305624 *** 000	KHB -24EC2 /04012	4.0	6.1 ~ 9.0	37 ~ 64	24	32	40	35	70	0.4	4MPa	KH-24EC-P	FDC-12-OH or C
	/05012	5.0	9.1 ~ 12	37 ~ 64									
305625 *** 000	KHB -25EC2 /00016	0	6.0 ~ 16	36 ~ 64 (69)	25	36	44	35	80	0.4	3MPa	KH-25EC-P	FDC-16-OH or C
305626 *** 000	KHB -26EC2 /03016	3.0	6.0	40 ~ 67 (72)	26	36	44	35	80	0.4	3MPa	KH-26EC-P	FDC-16-OH or C
	/04016	4.0	6.1 ~ 9.0	42 ~ 68 (73)									
305628 *** 000	KHB -28EC2 /05016	5.0	9.1 ~ 12	42 ~ 69 (74)	28	36	47	35	85	0.5	3MPa	KH-28EC-P	FDC-16-OH or C
305630 *** 000	KHB -30EC2 /06016	6.0	12.1 ~ 16	44 ~ 72 (77)	30	36	47	35	85	0.6	3MPa	KH-30EC-P	FDC-16-OH or C
305632 *** 000	KHB -32EC2 /00022	0	6.0 ~ 22	43 ~ 79	32	46	51	40	100	0.7	3MPa	KH-32EC-P	FDC-22-OH or C
	/03022	3.0	6.0	47 ~ 82									
305635 *** 000	KHB -35EC2 /04022	4.0	6.1 ~ 9.0	49 ~ 83	35	46	55	40	100	0.8	3MPa	KH-35EC-P	FDC-22-OH or C
	/05022	5.0	9.1 ~ 12	49 ~ 84									
305636 *** 000	KHB -36EC2 /06022	6.0	12.1 ~ 16	54 ~ 90	36	46	55	40	100	0.9	3MPa	KH-36EC-P	FDC-22-OH or C
	/08022	8.0	16.1 ~ 22	54 ~ 90									

Collet P. 087-088	Spanner P. 446	Coolant Pin P. 426

- L3 in bracket stands for KHB-28EC2 KHB-30EC2.
- Coolant pin, collet and spanner are sold separately.
- Please select preset driver according to tang size of cuttingtool. (Refer to P.433)  
Refer to P.439 for spindle dimension.

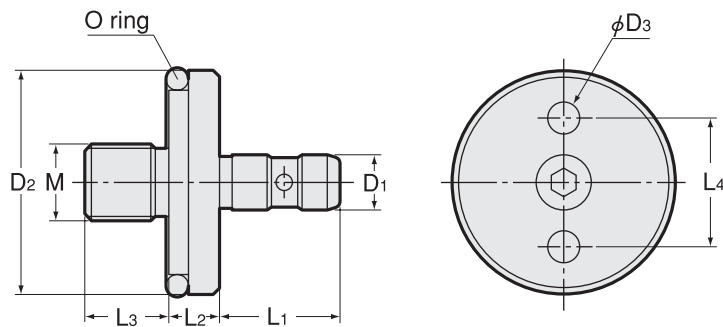
adjustable pin wrench (sold separately)

Code	Model	Holder Size
0150 09300000	GWA1	KHB14 ~ KHB30
0150 09300040	GWA40	KHB32 ~ KHB36

### Ordering Example

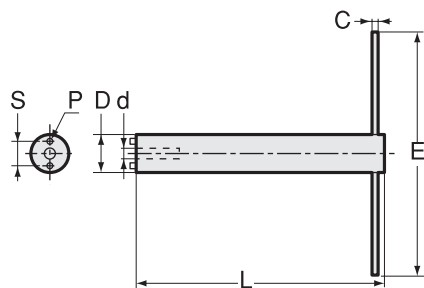
**KHB-20EC 2 / 03009**  
Low coolant pressure type Preset driver

## Coolant pin



Code	Model	D1	D2	D3	L1	L2	L3	L4	kg	M	O ring
3055 00001402	<b>KH14EC-P</b>	5.7	13.9	3.5	15	8	13	9.6	0.01	M8 P=1	P-10A 1-B
3055 00001602	<b>KH16EC-P</b>	5.7	15.9	3.5	15	8	13	11	0.02	M8 P=1	P-12 1-B
3055 00001902	<b>KH19EC-P</b>	5.7	18.9	3.5	15	8	13	11	0.03	M8 P=1	P-15 1-B
3055 00002002	<b>KH20EC-P</b>	5.7	19.9	3.5	15	8	13	11	0.03	M8 P=1	P-16 1-B
3055 00002202	<b>KH22EC-P</b>	7.6	21.9	5.5	16.5	8	13	15.4	0.03	M10 P=1	P-18 1-B
3055 00002402	<b>KH24EC-P</b>	7.6	23.9	5.5	16.5	8	13	15.4	0.04	M10 P=1	P-20 1-B
3055 00002502	<b>KH25EC-P</b>	8.6	24.9	5.5	19	8	13	17	0.04	M12 P=1	P-21 1-B
3055 00002602	<b>KH26EC-P</b>	8.6	25.9	5.5	19	8	13	17	0.04	M12 P=1	P-22 1-B
3055 00002802	<b>KH28EC-P</b>	8.6	27.9	5.5	19	8	13	17	0.05	M12 P=1	P-22A 1-B
3055 00003002	<b>KH30EC-P</b>	8.6	29.9	5.5	19	8	13	17	0.05	M12 P=1	P-24 1-B
3055 00003202	<b>KH32EC-P</b>	8.6	31.9	5.5	19	8	13	20	0.06	M12 P=1	P-26 1-B
3055 00003502	<b>KH35EC-P</b>	8.6	34.9	5.5	19	8	13	20	0.06	M12 P=1	P-29 1-B
3055 00003602	<b>KH36EC-P</b>	8.6	35.9	5.5	19	8	13	20	0.06	M12 P=1	P-30 1-B

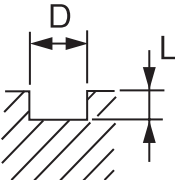
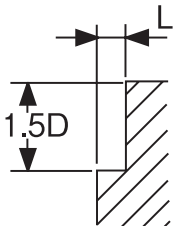
## Coolant pin wrench



Model	Coolant pin	d	D	S	P	L	C	E	kg
<b>HDMC -14G</b>	KH14EC-P	6	13.5	9.6	3	120	6	120	
<b>-16G</b>	KH16EC-P KH19EC-P KH20EC-P	6	15.5	11	3	140	6	120	
<b>-22G</b>	KH22EC-P KH24EC-P	8	21.5	15.4	5	160	10	160	0.5
<b>-25G</b>	KH25EC-P KH26EC-P KH28EC-P KH30EC-P	9	24.5	17	5	180	10	160	0.7
<b>-32G</b>	KH32EC-P KH35EC-P KH36EC-P	9	31.5	20	5	200	12	200	1.4

Coolant pin wrench is necessary to replace coolant pin.

## Stub Holder KH-E Endmilling Guidelines

Shape	Material	Cutter's dia	Rotation (min-1)	Feed (mm/min)	Max. cutting length L			
					KH16E	KH22E	KH26E	KH35E
	Aluminum (AC4C)	$\phi$ 6	4,000	387	1D	1D	—	—
		$\phi$ 12	3,150	400	—	1D	1D	—
		$\phi$ 16	2,000	345	—	—	0.75D	0.75D
		$\phi$ 20	1,000	315	—	—	—	0.5D
	Cast Iron (FC25)	$\phi$ 6	2,240	150	0.75D	1D	—	—
		$\phi$ 12	1,000	190	—	0.75D	0.75D	—
		$\phi$ 16	800	170	—	—	1D	0.75D
		$\phi$ 20	630	160	—	—	—	0.5D
	Steel (S45C)	$\phi$ 6	1,000	48	1D	1D	—	—
		$\phi$ 12	450	60	—	0.75D	1D	—
		$\phi$ 16	355	60	—	—	0.5D	0.5D
		$\phi$ 20	280	56	—	—	—	0.5D
	Aluminum (AC4C)	$\phi$ 6	9,000	1,000	0.3D	0.3D	—	—
		$\phi$ 12	4,000	1,180	—	0.3D	0.3D	—
		$\phi$ 16	3,150	1,060	—	—	0.3D	0.2D
		$\phi$ 20	2,500	1,000	—	—	—	0.1D
	Cast Iron (FC25)	$\phi$ 6	2,650	355	0.1D	0.1D	—	—
		$\phi$ 12	1,180	450	—	0.2D	0.2D	—
		$\phi$ 16	950	400	—	—	0.2D	0.1D
		$\phi$ 20	750	375	—	—	—	0.1D
	Steel (S45C)	$\phi$ 6	1,320	125	0.2D	0.2D	—	—
		$\phi$ 12	600	160	—	0.2D	0.2D	—
		$\phi$ 16	470	160	—	—	0.2D	0.1D
		$\phi$ 20	375	150	—	—	—	0.1D

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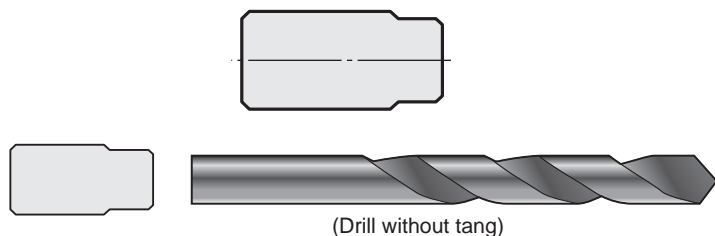
Straight Drill Chuck

Floating Holder

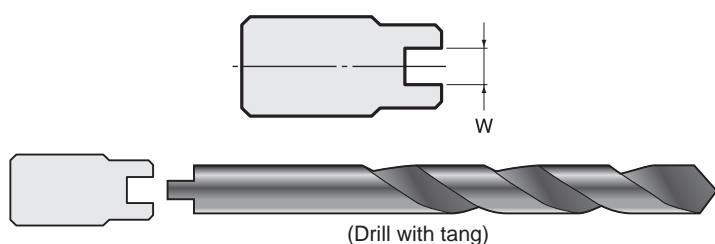
Accessories

Preset driver (For KH-E, KH-A, KH)

Type1 without tang



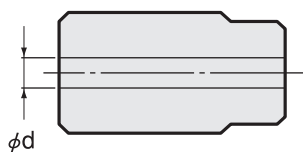
Type2 with tang



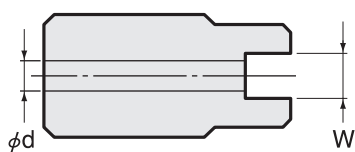
Model	Holder model	Type	W <sup>+0.4</sup> / <sub>+0.3</sub>
KHS	KH-12E KH-12AR	1	—
		2	2.4
		2	3
KHS	KH-14E KH-14AR KH-14R	1	—
		2	2.4
		2	3
		2	4
KHS	KH-16E, 16A, 16 KH-19E, 19A, 19 KH-20E, 20A, 20	1	—
		2	2.4
		2	3
		2	4
KHS	KH-22E, 22A, 22 KH-24E, 24A, 24	1	—
		2	2.4
		2	3
		2	4
		2	5
KHS	KH-25E, 25A KH-26E, 26A KH-28E, 28A KH-30E, 30A	1	—
		2	2.4
		2	3
		2	4
		2	5
		2	6
KHS	KH-32E, 32A KH-35E, 35A KH-36E, 36A	1	—
		2	2.4
		2	3
		2	4
		2	5
		2	6
KHS	KH-48E KH-48A	1	—
		2	8
		2	8
		2	12

Preset driver (For KH-EC)

Type1 without tang



Type2 with tang



Model	Holder Model	Type	W <sup>+0.4</sup> / <sub>+0.3</sub>	d	
KHS	KHB-14EC1,2	00007-OH	2	2.4	2.5
		02407-OH	2	2.4	2.5
		03007-OH	2	3	2.5
		04007-OH	2	4	2.5
KHS	KHB-16EC1,2 KHB-19EC1,2 KHB-20EC1,2	00009-OH	2	2.4	2.5
		02409-OH	2	2.4	2.5
		03009-OH	2	3	3
		04009-OH	2	4	3
KHS	KHB-22EC1,2 KHB-24EC1,2	00012-OH	1	—	2.5
		02412-OH	2	2.4	2.5
		03012-OH	2	3	3
		04012-OH	2	4	4
		05012-OH	2	5	5
KHS	KHB-25EC1,2 KHB-26EC1,2 KHB-28EC1,2 KHB-30EC1,2	00016-OH	1	—	2.5
		03016-OH	2	3	3
		04016-OH	2	4	4
		05016-OH	2	5	5
		06016-OH	2	6	6
		08022-OH	2	8	8
KHS	KHB-32EC1,2 KHB-35EC1,2 KHB-36EC1,2	00022-OH	1	—	2.5
		03022-OH	2	3	3
		04022-OH	2	4	4
		05022-OH	2	5	5
		06022-OH	2	6	6
08022-OH	2	8	8		