

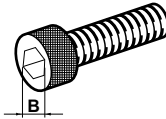
# SPARE PARTS

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IDENTIFICATION.....	F002
SPARE PARTS	
CLAMP SCREW.....	F003
SHIM.....	F009
SHIM PIN AND CLAMP LEVER.....	F012
LOCK PIN.....	F013
CLAMP BRIDGE.....	F013
BREAKER PIECE.....	F015
ANTI SEIZE LUBRICANT.....	F016

# IDENTIFICATION

## IDENTIFICATION OF CLAMP SCREW (Metric coarse right hand screw thread)



**H SC 060 05**

Length

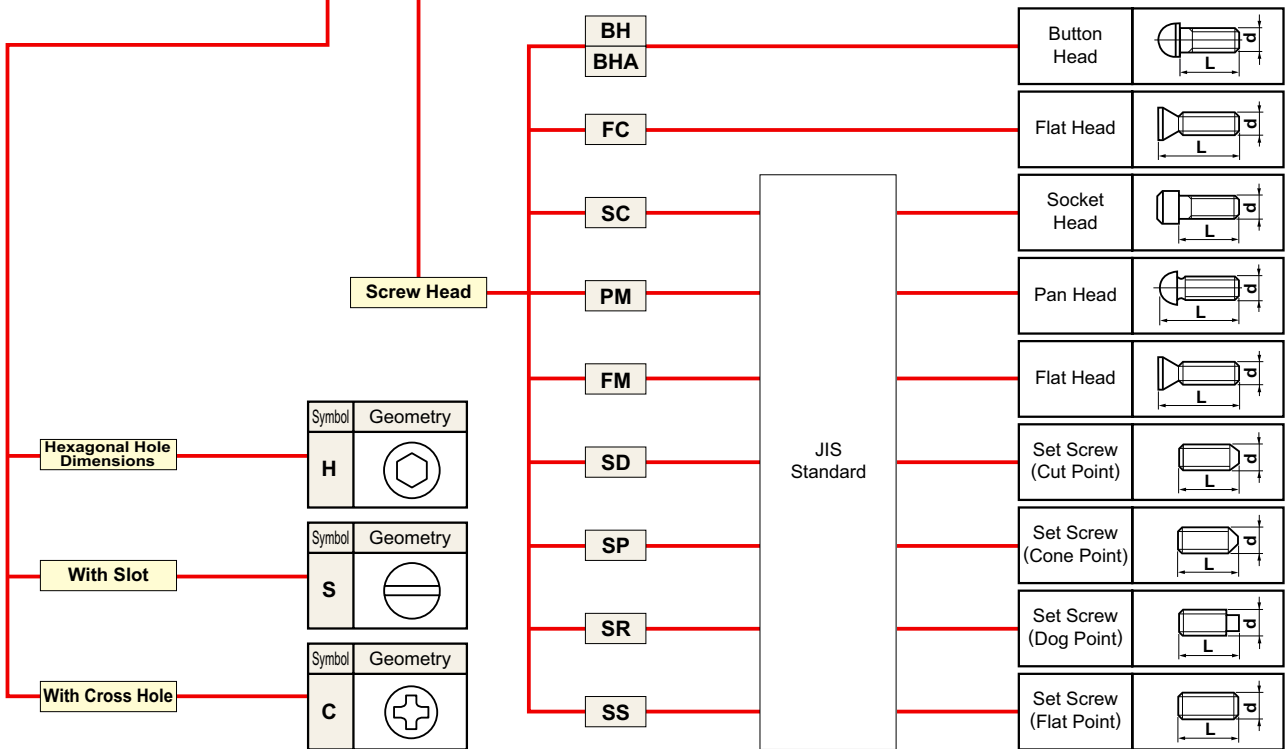
Example	
Symbol	L
05	5
10	10

Screw Diameter

Example	
Symbol	d
050	M5
060	M6

### Hexagonal Hole Dimensions

Diameter	Pitch	B Dimensions			
		HBH	HFC	HSC	HS
M2	0.4	—	—	1.5	0.9
M2.5	0.45	—	—	2	1.3
M3	0.5	2	2	2.5	1.5
M4	0.7	2.5	2.5	3	2
M5	0.8	3	3	4	2.5
M6	1	4	4	5	3
M8	1.25	5	5	6	4
M10	1.5	6	6	8	5



SPARE PARTS IDENTIFICATION

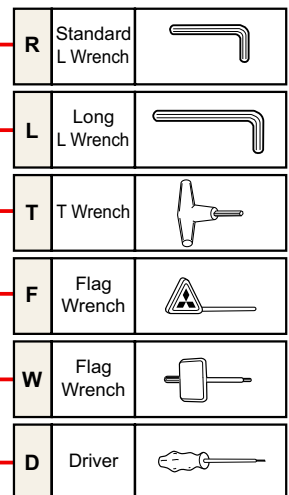
## IDENTIFICATION OF WRENCH

**HKY 15 R**

Symbol	Wrench
HKY	Hexagonal Wrench
TKY	Torx Wrench

Hexagonal Wrench	
Symbol	B
15	1.5
20	2
25	2.5
30	3
40	4
50	5
60	6

Torx Wrench		
Symbol	B	Size
06	1.7	T6
08	2.3	T8
10	2.7	T10
15	3.3	T15
20	3.8	T20
25	4.4	T25
27	5.0	T27
30	5.5	T30



# SPARE PARTS

## CLAMP SCREW

Geometry	Order Number	Dimensions (mm)					Angle $\theta^\circ$	Drive Size	Torque (N·m)	Tool Holder
		a	b	c	d	e				
	<b>AJS3010T10</b>	5	M3×0.5	10	1.5	2.8	120	T10	2.5	<b>AJX</b> Type Cutter (☉C116–C118)
	<b>4012T15</b>	7	M4×0.7	12	2.2	3.4	120	T15	3.5	
	<b>5014T25</b>	8	M5×0.8	14	2.7	4.5	120	T25	7.5	
	<b>BOES101</b>	15	M10×1.5	45	10	8	60	—	10.0	<b>OCTACUT</b> Type Cutter (☉C126)
	<b>BRS103</b>	5	M3×0.5	9.9	2.9	3.4	120	T15	3.5	
	<b>105</b>	8	M5×0.8	13.8	3.8	4.5	120	T25	7.5	
	<b>CS3</b> (For Use with C3)	7	M4×0.7	14.6	2.6	2.5	—	—	2.2	<b>F</b> Type Boring Bar (☉A252)  This clamp screw is included with the clamp as a set.
	<b>CS4</b> (For Use with C4)	9	M5×0.8	15.4	3.4	3	—	—	3.3	
	<b>CS5</b> (For Use with C5)	10.5	M6×1	22	4	4	—	—	7.0	
	<b>CAS51T</b>	7.9	M5×0.8	19	5	4.5	10	T25	8.5	<b>BF407</b> Type (☉C070)
	<b>CS200T</b>	3.2	M2×0.4	5	1.6	1.8	90	T6	0.5	<b>AL</b> Holder (☉A192) <b>F</b> Type Boring Bar (☉A251) <b>MMTI</b> Type Boring Bar (☉A331) <b>SNT</b> Type Boring Bar (☉A342) <b>ROTATING TOOLS</b> (☉C060, C122, C126, C127, C129, C130, C135, C149)
	<b>250T</b>	3.7	M2.5×0.45	6	1.8	2.4	90	T8	1.0	
	* <b>250560T</b>	3.9	M2.5×0.45	5.2	2.5	2.4	60	T8	1.0	
	<b>300590T</b>	4.1	M3×0.5	5.5	2.1	2.4	90	T8	1.0	
	<b>300790TS</b>	4.7	M3×0.5	7	2.3	2.8	90	T10	2.0	
	<b>300890T</b>	4.1	M3×0.5	8	2.1	2.4	90	T8	1.0	
	<b>350690T</b>	4.8	M3.5×0.6	6.5	2.4	2.8	90	T10	2.5	
	* <b>350760T</b>	5.5	M3.5×0.6	7	4	3.4	60	T15	3.5	
	<b>350790T</b>	4.8	M3.5×0.6	7	2.4	2.8	90	T10	2.5	
	* <b>350860T</b>	5.5	M3.5×0.6	8.4	4	3.4	60	T15	3.5	
	<b>350990T</b>	4.8	M3.5×0.6	9	2.4	2.8	90	T10	2.5	
	<b>400990T</b>	6.0	M4×0.7	9	2.8	3.4	90	T15	3.5	
	<b>401160T</b>	5.7	M4×0.7	11	4.5	3.4	60	T15	3.5	
	<b>401990T</b>	6.0	M4×0.7	19	3.0	3.9	90	T20	3.5	
	<b>451190T</b>	6.3	M4.5×0.75	11	2.9	3.9	90	T20	5.0	
	* <b>501160T</b>	7.0	M5×0.8	11	3.6	3.9	60	T20	5.0	
<b>501290T</b>	7.0	M5×0.8	11	3.5	4.5	90	T25	7.5		
<b>502190T</b>	8.5	M5×0.8	21	4.0	5.1	90	T27	7.5		
<b>6016060T</b>	8.5	M6×1.0	16	4.5	4.5	60	T25	7.5		
	<b>CSF401260T</b>	7.2	M4×0.5	12	5.2	3.9	60	T20	5.0	<b>PMR</b> Type Cutter (☉C152)
	<b>DC0520T</b>	8.5	M5×0.8	22.5	2.5	3.4	—	T15	3.5	<b>DOUBLE CLAMP</b> Holder (☉A168, A170, A175, A179–A182) <b>DOUBLE CLAMP DIMPLE BAR</b> (☉A242–A244)
	<b>0621T</b>	10.5	M6×1.0	25	4	3.9	—	T20	5.0	
	<b>DGS51</b>	11.5	M5×0.8	19	4	4	—	—	7.0	<b>DG</b> Type Holder (☉A278–A298) <b>HSK</b> System (☉E012–E017)

# SPARE PARTS

## CLAMP SCREW

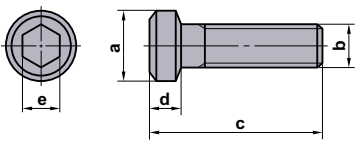
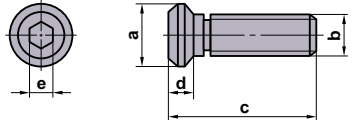
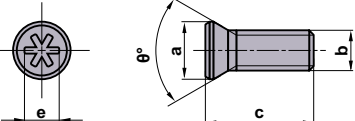
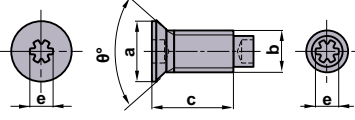
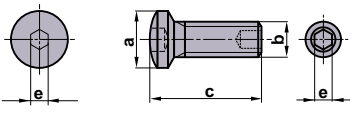
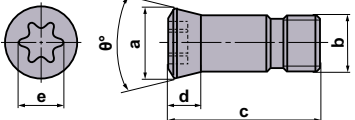
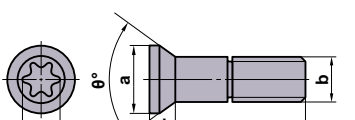
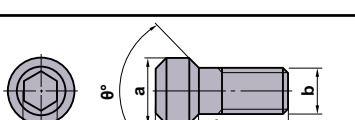
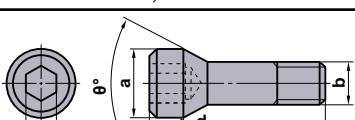
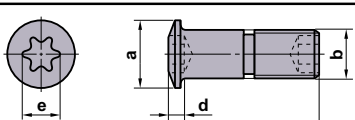
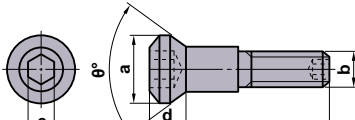
Geometry	Order Number	Dimensions (mm)					Angle $\theta^\circ$	Drive Size	Torque (N·m)	Tool Holder
		a	b	c	d	e				
	<b>DKS4</b>	5.6	M4×0.7	18	3.5	3	—	—	3.3	
	<b>5</b>	7.6	M5×0.8	19	4.5	4	—	—	7.0	
	<b>EGS06019</b>	9	M6×1	22.5	3.5	3	—	—	3.3	EG Type Holder (⊕A302)
	<b>08024</b>	11	M8×1.25	28.5	4.5	4	—	—	7.0	
	<b>FC400890T</b>	5.6	M4×0.7	7.5	1.3	2.8	90	T10	2.5	AL Type Holder (⊕A193, A194) AL Type Boring Bar (⊕A266) SMG Type Holder (⊕A306, A346)
	<b>HFF06015</b>	10	M6×1	15	6	5	80	—	8.2	
	<b>HFF08043H</b>	11	M8×1.25	43	5	5	90	—	8.2	BXD Type Cutter (⊕C104)
	<b>HS4L</b>	5.4	M4×0.7	14	2.3	2.5	80	—	3.8	
	<b>5S</b>	6.8	M5×0.8	9	2.8	3	80	—	3.3	
	<b>5L</b>	6.8	M5×0.8	15	2.8	3	80	—	6.6	
	<b>HSP05008C</b>	M5×0.8	8	—	—	2.5	—	—	2.5	MP Type Holder (⊕A179–A181) D Type Boring Head (⊕A269)
	<b>HY-A1</b>	4.4	M3×0.5	7	2.1	2	82	—	1.5	
	<b>-V1</b>	5.5	M3×0.5	7	2.5	2	82	—	1.5	
	<b>2</b>	5.5	M3×0.5	10	2.5	2	82	—	1.5	
	<b>3</b>	7	M3.5×0.6	12	2.9	2	82	—	1.5	
	<b>4</b>	9.3	M5×0.8	16	3.6	3	82	—	3.3	
	<b>JSS6</b>	6.9	M6×0.75	4.5	1.5	0.8	—	—	—	SP Type Holder (⊕A184–A187)
	<b>7</b>	8	M7×0.75	4.4	1.5	1	—	—	—	
	<b>KS1</b>	7	M4×0.7	14	5	—	—	—	—	
	<b>2</b>	10	M6×1	18	7	—	—	—	—	
	<b>3</b>	8	M4×0.7	14	6.5	—	—	—	—	
	<b>1S</b>	7	M4×0.7	14	5	—	—	—	—	
	<b>2S</b>	10	M6×1	18	7	—	—	—	—	
	<b>KS11</b>	8	M5×0.8	19	3	3	—	—	3.3	
	<b>12</b>	10	M6×1	26	4	4	—	—	7.0	
	<b>13</b>	10	M6×1	30	4	4	—	—	7.0	
	<b>14</b>	13	M8×1.25	45	5	5	—	—	9.0	
	<b>HSC08030H</b>	13	M8×1.25	38	8	5	—	—	24	APX3000 Type Cutter (⊕C091)
	<b>10030H</b>	16	M10×1.5	40	10	6	—	—	40	APX4000 Type Cutter (⊕C096)
	<b>12035H</b>	18	M12×1.75	47	12	10	—	—	80	AXD7000 Type Cutter (⊕C100)
	<b>16040H</b>	24	M16×2	56	16	14	—	—	150	BXD Type Cutter (⊕C104) AJX Type Cutter (⊕C114)

Geometry	Order Number	Dimensions (mm)					Angle $\theta^\circ$	Drive Size	Torque (N·m)	Tool Holder
		a	b	c	d	e				
	<b>LLR1</b>	M5×0.8	—	3.5	—	2.5	—	—	—	
	<b>2</b>	M6×1	—	5	—	3	—	—	—	
<p><b>LLCS103, LLCS105</b> <b>LLCS125, LLCS205</b></p> <p>The products with "*" do not have a hexagonal hole at the end marked b.</p> <p>The products with "☆" do not have a hexagonal hole at the end marked a.</p>	☆ <b>LLCS103</b>	M3×0.5	4	11	4.6	2	—	—	1.5	<b>LL Type Holder</b> (⊕A168—A176, A178, A182, A190) <b>P Type Boring Bar</b> (⊕A261—A264) <b>D Type Boring Head</b> (⊕A267, A268) <b>KSMG Type Cutter</b> (⊕C150) <b>HSK System</b> (⊕E004, E005, E007, E008, E010)
	* <b>105</b>	M5×0.8	M5×0.8	10	1.5	2	—	—	1.5	
	<b>106</b>	M6×1	6	16.5	3.5	2.5	—	—	2.2	
	* <b>106S</b>	M6×1	6	13.4	0.7	2.5	—	—	2.2	
	<b>108</b>	M8×1.25	8	21	6.5	3	—	—	3.3	
	* <b>108S</b>	M8×1.25	8	16.5	2	3	—	—	3.3	
	<b>110</b>	M10×1.5	10	29	8	4	—	—	7.0	
	<b>112</b>	M12×1	11.9	36.2	9	5	—	—	8.0	
	<b>125</b>	M8×0.8	M5×0.8	12	2	2	—	—	1.5	
	<b>205</b>	M5×0.8	M5×0.8	16	4	2	—	—	1.5	
	<b>206</b>	M6×1	6	26	13	2.5	—	—	2.2	
	<b>208</b>	M8×1.25	8	24	6.5	3	—	—	3.3	
	<b>306</b>	M6×1	6	21	4	2.5	—	—	2.2	
	<b>308</b>	M8×1.25	8	42	27.5	3	—	—	3.3	
	<b>310</b>	M10×1	10	29	8	4	—	—	7.0	
	<b>410</b>	M10×1	10	30	6.6	4	—	—	7.0	
<b>508</b>	M8×1	8	24	6.5	3	—	—	3.3		
<b>508S</b>	M8×1	8	20.5	3	3	—	—	3.3		
<p>*Without Hexagonal Hole on Right-Hand Screw</p>	<b>LS1</b>	M6×1	22	8	8	3	—	—	5.0	<b>DOUBLE CLAMP Holder</b> (For Heavy Cutting) (⊕A169, A172, A174) <b>UG Type Holder</b> (⊕A300) <b>ROTATING TOOLS</b> (⊕C060, C062, C064, C066, C068, C070, C071, C076, C077, C080, C104, C126, C129, C154)
	<b>2</b>	M8×1	29	13	10	4	—	—	8.2	
	<b>3</b>	M8×1	32	13	13	4	—	—	8.2	
	* <b>4</b>	M6×1	15	8	4	3	—	—	5.0	
	* <b>5</b>	M6×1	18	8	5	3	—	—	5.0	
	* <b>6</b>	M8×1	24	13	5	4	—	—	8.2	
	* <b>7</b>	M8×1	27	13	8	4	—	—	8.2	
	* <b>8</b>	M6×0.75	18	7	7	3	—	—	5.0	
	* <b>9</b>	M6×0.75	22	8	8	3	—	—	5.0	
	* <b>10</b>	M7×0.75	16	6	6	4	—	—	8.2	
	* <b>11</b>	M8×1	16	6	6	4	—	—	8.2	
	* <b>12</b>	M8×1	24	7	7	4	—	—	8.2	
	* <b>13</b>	M8×1	34	12	12	4	—	—	8.2	
	* <b>14</b>	M7×0.75	24	10	10	4	—	—	8.2	
	* <b>15</b>	M7×0.75	18	6	8	4	—	—	8.2	
	* <b>16</b>	M7×0.75	23	11	8	4	—	—	8.2	
	* <b>17</b>	M8×1	42	17	11	4	—	—	8.2	
	* <b>18</b>	M7×0.75	14	6	4	4	—	—	8.2	
	* <b>20</b>	M10×1.5	26	9	9	5	—	—	9.0	
	* <b>21</b>	M10×1.5	32	12	12	5	—	—	9.0	
<b>24</b>	M8×1.25	24	8.5	8.5	4	—	—	8.2		
<b>25</b>	M8×1.0	27.7	11.8	10.2	4	—	—	8.2		
	<b>10T</b>	M7×0.75	14	6	5	4.5	—	T25	8.5	
	<b>14T</b>	M7×0.75	24	10	10	4.5	—	T25	8.5	
	<b>15T</b>	M7×0.75	18	7	7	4.5	—	T25	8.5	
	<b>19T</b>	M6×0.75	11	4	4	3.4	—	T15	5.0	
	<b>10TS</b>	M7×0.75	13	6	4	4.5	—	T25	8.5	
	<b>LS24H</b>	M8×1.25	24	8.5	8.5	4	—	—	8.2	<b>APX3000 Type Cutter</b> (⊕C091) <b>BXD4000 Type Cutter</b> (⊕C104)
	<b>MBA20040H</b>	50	M20×2.5	54	14	17	—	—	320	<b>APX4000 Type Cutter</b> (⊕C096) <b>AXD7000 Type Cutter</b> (⊕C100) <b>BXD4000 Type Cutter</b> (⊕C104) <b>AJX Type Cutter</b> (⊕C114)
	<b>24045H</b>	65	M24×3	59	14	17	—	—	520	



# SPARE PARTS

## CLAMP SCREW

Geometry	Order Number	Dimensions (mm)					Angle $\theta^\circ$	Drive Size	Torque (N·m)	Tool Holder
		a	b	c	d	e				
	<b>MGS6</b>	10	M6×1	26	4	5	—	—	9.0	
	<b>MHT1</b>	11	M8×1	18.5	3.5	4	—	—	8.7	
	<b>NS251</b>	3.6	M2.5×0.45	7	—	2.2	60	—	0.7	<b>SMALL TOOLS</b> (☉A211, A214, A223)
	<b>401</b>	5.8	M4×0.7	6	—	3.6	60	—	3.5	
	<b>NS402W</b>	5.85	M4×0.7	10	—	2.2	60	—	0.7	<b>SMALL TOOLS</b> (☉A209, A210, A212, A214, A216, A220, A226)
	<b>403W</b>	5.85	M4×0.7	12	—	2.2	60	—	0.7	
	<b>404W</b>	5.8	M4×0.7	10	—	2.2	90	—	0.7	
	<b>NS501W</b>	8	M5×0.8	16	—	2.5	120	—	2.2	<b>SMALL TOOLS</b> (☉A217—A219)
	<b>502W</b>	8	M5×0.8	20	—	2.5	120	—	2.2	
	<b>RN-S4S</b>	5.8	M4×0.5	8.4	2.5	3.4	61	T15	3.5	
	<b>-S4M</b>	5.8	M4×0.5	10	2.2	3.4	61	T15	3.5	
	<b>-S4</b>	5.8	M4×0.5	12.5	2.2	3.4	61	T15	3.5	
	<b>-S5</b>	8.1	M5×0.5	15.4	3.6	3.9	61	T20	5.0	
	<b>-S6</b>	9.5	M6×0.75	20.3	4.6	3.9	61	T20	5.0	
	<b>-S7</b>	11	M7×0.75	24.7	5.2	4.5	61	T25	7.5	
	<b>RS3008T</b>	4.3	M3×0.35	8.6	2	2.4	61	T8	1.5	<b>SRF Type Cutter</b> (☉C137, C138)
	<b>3510T</b>	5	M3.5×0.35	10	2.3	2.8	61	T10	2.5	
	<b>4015T</b>	6	M4×0.5	14	2.7	3.4	61	T15	3.3	
	<b>5020T</b>	8.1	M5×0.5	16.4	3.6	3.9	61	T20	5.0	
	<b>6025T</b>	9.5	M6×0.75	21.5	4.2	4.5	61	T25	7.5	
	<b>8030T</b>	12	M8×0.75	25	5	5.6	61	T30	10.0	
	<b>S1</b>	3.5	M2×0.4	5.5	2.2	1.5	92	—	1.0	
	<b>3</b>	4.5	M3×0.5	7.7	2.4	2	92	—	1.5	
	<b>4</b>	5.3	M4×0.7	8	1.8	2.5	62	—	2.2	
	<b>5</b>	6.8	M5×0.8	9	2.4	3	62	—	3.3	
	<b>SD32</b>	12	M8×1.25	28	7.2	6	50	—	9.5	<b>D Type Head Arbor</b> (☉A269, A316, A355)
	<b>40</b>	12	M8×1.25	36	7.2	6	50	—	9.5	
	<b>50</b>	16	M10×1.5	46	8.2	8	50	—	1.0	
	<b>63</b>	16	M10×1.5	61	8.2	8	50	—	1.0	
	<b>SETS51</b>	6.8	M5×0.8	14.8	1.5	3.4	—	T15	3.5	<b>MMTE Type Holder</b> (☉A330) <b>MMTI Type Boring Bar</b> (☉A331) <b>SET Type Holder</b> (☉A340) <b>SNT Type Boring Bar</b> (☉A342) <b>HSK System</b> (☉E022)
	<b>61</b>	8	M6×1	20	1.8	3.9	—	T20	5.0	
	<b>SLCS105</b>	10	M5×0.8	25	6.3	4	90	—	7.0	<b>WP Type Holder</b> (☉A176—A178, A183) <b>M Type Boring Bar</b> (☉A265)
	<b>106</b>	12	M6×1	32	6.2	4	90	—	7.0	



# SPARE PARTS

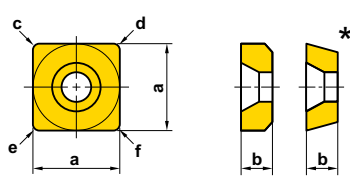
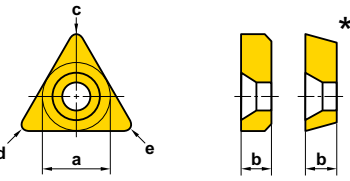
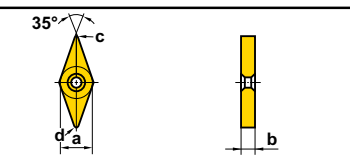
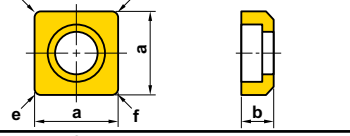
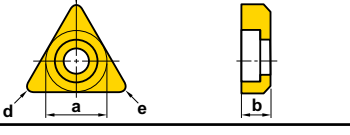
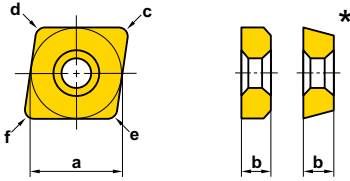
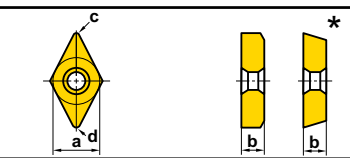
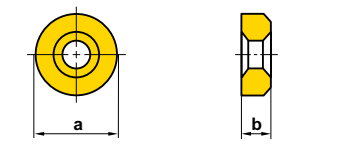
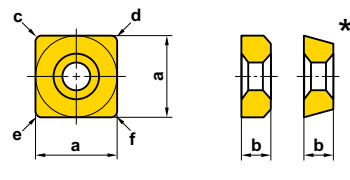
## CLAMP SCREW

Geometry	Order Number	Dimensions (mm)					Angle θ°	Drive Size	Torque (N·m)	Tool Holder
		a	b	c	d	e				
	<b>TPS20</b>	2.7	M2×0.4	3.5	1.3	1.8	60	6IP	0.5	<b>ASX445</b> Type Cutter (C057) <b>ASX400</b> Type Cutter (C073) <b>APX3000</b> Type Cutter (C088—C091) <b>APX4000</b> Type Cutter (C094—C097) <b>PMR</b> Type Cutter (C152)
	<b>22</b>	3.0	M2.2×0.45	4.7	1.6	2.1	60	7IP	0.5	
	<b>22S</b>	3.0	M2.2×0.45	4.2	1.6	2.1	60	7IP	0.5	
	<b>25</b>	3.3	M2.5×0.45	5.5	1.7	2.1	60	7IP	1.0	
	<b>25-1</b>	3.3	M2.5×0.45	6.5	1.7	2.1	60	7IP	1.0	
	<b>35</b>	5.3	M3.5×0.6	11.5	2.8	3.4	60	15IP	3.5	
	<b>4</b>	5	M4×0.7	8	2.6	3.4	60	15IP	3.5	
	<b>43</b>	5	M4×0.7	10	2.6	3.4	60	15IP	3.5	
	<b>TSS04005</b>	M4×0.7	—	5	—	2.4	—	T8	—	<b>PMF</b> Type Cutter (C154)
	<b>05006</b>	M5×0.8	—	6	—	2.8	—	T10	—	
	<b>06010</b>	M6×1	—	10	—	3.9	—	T20	—	
	<b>WCS503507H</b>	6.3	M5×0.5	7	3.3	3.5	—	—	6.5	<b>ASX445</b> Type Cutter (C057) <b>ASX400</b> Type Cutter (C073) <b>PMR</b> Type Cutter (C152)
	<b>604010H</b>	7.8	M6×0.75	10	4.1	4.0	—	—	7.0	
	<b>WS1</b>	8.5	M5×0.8	19	5	4.5	—	T25	7.5	
	<b>WS254012T</b>	4	M2.5×0.45	11.5	2.2	2.4	80	T8	2.0	<b>TAW</b> Drill (D070—D075, D081)
	<b>254013T</b>	4	M2.5×0.45	12.5	2.2	2.4	80	T8	2.0	
	<b>254014T</b>	4	M2.5×0.45	13.5	2.2	2.4	80	T8	2.0	
	<b>254015T</b>	4	M2.5×0.45	14.5	2.2	2.4	80	T8	2.0	
	<b>254016T</b>	4	M2.5×0.45	15.5	2.2	2.4	80	T8	2.0	
	<b>304517T</b>	4.5	M3×0.5	16.5	3.4	2.8	60	T10	3.5	
	<b>304518T</b>	4.5	M3×0.5	17.5	3.4	2.8	60	T10	3.5	
	<b>355520T</b>	5.5	M3.5×0.6	19.5	3.9	3.4	60	T15	5.5	
	<b>355521T</b>	5.5	M3.5×0.6	20.5	3.9	3.4	60	T15	5.5	
	<b>406023T</b>	6	M4×0.7	22.0	4.4	4.5	60	T25	8.5	
	<b>406024T</b>	6	M4×0.7	23.0	4.4	4.5	60	T25	8.5	
	<b>508026T</b>	8	M5×0.8	25.0	5.2	5.1	60	T27	12.0	
<b>508027T</b>	8	M5×0.8	26.0	5.2	5.1	60	T27	12.0		

SPARE PARTS

Geometry	Order Number	Dimensions (mm)						Torque (N·m)	Tool Holder
		a	a'	b	c	d	e		
	<b>HDS08030</b>	M8×0.75	M8×1.25	30	13.5	11.5	4	8.2	<b>BRP</b> Type Cutter (C129) <b>OCTACUT</b> Type Cutter (C126) <b>PMF</b> Type Cutter (C154)
	<b>HDS10031</b>	M10×1.0	M10×1.5	31	14	12	5	9.0	

## SHIM

Geometry	Order Number	Dimensions (mm)						Tool Holder
		a	b	c	d	e	f	
	<b>CS32</b>	9.52	3.18	0.8	0.8	1.2	1.2	
	<b>42</b>	12.70	3.18	0.8	0.8	1.2	1.6	
	<b>43</b>	12.70	4.76	0.8	0.8	1.2	1.6	
	<b>62</b>	19.05	3.18	1.2	1.2	1.6	1.6	
	* <b>PS31</b>	8.28	2.38	0.2	0.2	0.6	0.6	
	* <b>42</b>	11.46	3.18	0.2	0.2	0.6	1.0	
	* <b>62</b>	17.20	3.18	0.3	0.3	0.7	0.7	
	<b>CT22</b>	6.35	3.18	0.4	0.8	1.2	—	
	<b>32</b>	9.52	3.18	0.4	0.8	1.2	—	
	<b>33</b>	9.52	4.76	0.4	0.8	1.2	—	
	<b>42</b>	12.70	3.18	0.4	0.8	1.2	—	
	* <b>PT21</b>	5.11	2.38	0.2	0.2	0.6	—	
	* <b>32</b>	8.28	3.18	0.2	0.2	0.6	—	
	* <b>42</b>	10.85	3.18	0.3	0.3	0.7	—	F Type Boring Bar (⊕A252)
	<b>BPT322</b>	7.8	3.18	—	—	—	—	
	<b>DCSVN32</b>	9.52	3.18	0.8	1.2	—	—	<b>DOUBLE CLAMP</b> Holder (⊕A179–A181) <b>DOUBLE CLAMP DIMPLE BAR</b> (⊕A244)
	<b>ESS42</b>	12.70	3.18	0.8	0.8	1.2	1.6	<b>ML</b> Type Holder (⊕A171)
	<b>EST32</b>	9.52	3.18	0.4	0.8	1.2	—	<b>ML</b> Type Holder (⊕A175, A177–A179)
	<b>43</b>	12.70	4.76	0.4	0.8	1.2	—	
	<b>LLSCN3T3</b>	9.52	3.97	0.4	0.4	0.8	0.8	<b>DOUBLE CLAMP</b> Holder (⊕A268) <b>LL</b> Type Holder (⊕A168, A169) <b>DOUBLE CLAMP DIMPLE BAR</b> (⊕A242) P Type Boring Bar (⊕A262) D Type Boring Head (⊕A268) HSK System (⊕E004)
	<b>33</b>	9.52	4.76	0.4	0.4	0.8	0.8	
	<b>42</b>	12.70	3.18	0.8	0.8	1.2	1.2	
	<b>53</b>	15.87	4.76	1.2	1.2	1.6	1.6	
	<b>63</b>	19.05	4.76	1.2	1.2	1.6	1.6	
	* <b>LLSCP42</b>	12.70	3.18	0.8	0.8	1.2	1.2	
	* <b>63</b>	19.05	4.76	1.2	1.2	1.6	1.6	<b>DOUBLE CLAMP DIMPLE BAR</b> (⊕A242) P Type Boring Bar (⊕A262)
	<b>LLSDN32</b>	9.52	3.18	0.8	1.2	—	—	<b>DOUBLE CLAMP</b> Holder (⊕A170) <b>LL</b> Type Holder (⊕A170, A171) <b>DOUBLE CLAMP DIMPLE BAR</b> (⊕A242) P Type Boring Bar (⊕A262–A264) D Type Boring Head (⊕A267, A268) HSK System (⊕E007)
	<b>42</b>	12.70	3.18	0.8	1.2	—	—	
	<b>43</b>	12.70	4.76	0.8	1.2	—	—	
	<b>53</b>	15.87	4.76	1.2	1.6	—	—	
	* <b>LLSDP42</b>	12.70	3.18	0.8	1.2	—	—	
	<b>LLSRN103</b>	8.3	3.18	—	—	—	—	<b>LL</b> Type Holder (⊕A190) HSK System (⊕E010)
	<b>123</b>	9.8	3.18	—	—	—	—	
	<b>164</b>	13.6	4.76	—	—	—	—	
	<b>204</b>	17.3	4.76	—	—	—	—	
	<b>256</b>	22.0	6.35	—	—	—	—	
	<b>326</b>	28.0	6.35	—	—	—	—	
	<b>LLSSN32</b>	9.52	3.18	0.8	0.8	1.2	1.2	<b>LL</b> Type Holder (⊕A172–A175) <b>DOUBLE CLAMP DIMPLE BAR</b> (⊕A243) P Type Boring Bar (⊕A261)
	<b>33</b>	9.52	4.76	0.8	0.8	1.2	1.2	
	<b>42</b>	12.70	3.18	0.8	0.8	1.2	1.6	
	<b>53</b>	15.87	4.76	1.2	1.2	1.6	1.6	
	<b>63</b>	19.05	4.76	1.2	1.2	1.6	2.0	
	<b>84</b>	25.40	6.35	1.6	1.6	2.4	2.4	
	* <b>LLSSP42</b>	12.70	3.18	0.8	0.8	1.2	1.6	



# SPARE PARTS

## SHIM

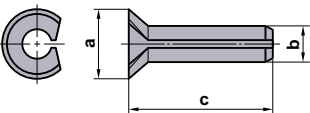
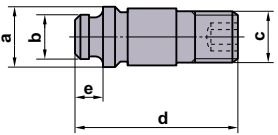
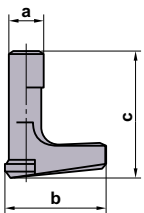
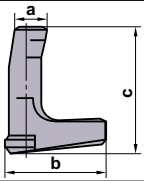
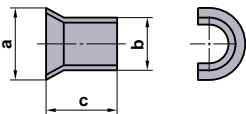
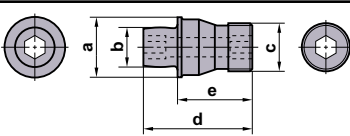
Geometry	Order Number	Dimensions (mm)						Tool Holder
		a	b	c	d	e	f	
	LLSTE32	7.6	3.18	0.4	0.4	0.4	—	LL Type Holder (ⒶA176—A178)
	LLSTN32	9.52	3.18	0.4	0.8	1.2	—	DOUBLE CLAMP Holder (ⒶA177)
	33	9.52	4.76	0.4	0.8	1.2	—	DOUBLE CLAMP DIMPLE BAR (ⒶA243)
	42	12.70	3.18	0.4	0.8	1.2	—	P Type Boring Bar (ⒶA261)
	53	15.87	4.76	0.8	1.2	1.6	—	D Type Boring Head (ⒶA267)
	* LLSTP32	9.52	3.18	0.4	0.8	1.2	—	
	LLSWN32	9.52	3.18	0.4	0.8	1.2	—	LL Type Holder (ⒶA182)
	3T3	9.52	3.97	0.4	0.8	1.2	—	DOUBLE CLAMP Holder (ⒶA182)
	42	12.70	3.18	0.4	0.8	1.2	—	DOUBLE CLAMP DIMPLE BAR (ⒶA244)
	* LLSWP32	9.52	3.18	0.4	0.8	1.2	—	
	* 42	12.70	3.18	0.4	0.8	1.2	—	
	MHS532R/L	9.4	15.7	4.5	0.8	0.8	—	
	533R/L	9.4	15.7	4.5	1.2	1.2	—	
	534R/L	9.4	15.7	4.5	1.6	1.6	—	
	542R/L	9.4	15.7	6.5	0.8	0.8	—	
	543R/L	9.4	15.7	6.5	1.2	1.2	—	
	544R/L	9.4	15.7	6.5	1.6	1.6	—	
	MLCP42	12.58	3.18	1.2	1.2	1.2	1.2	P Type Boring Bar (ⒶA262)
	MLDP42	12.56	3.18	1.2	1.2	—	—	P Type Boring Bar (ⒶA262—A264)
	MLSP42	12.63	3.18	1.2	1.2	1.2	1.2	P Type Boring Bar (ⒶA261)
	MLTP32	9.50	3.18	1.2	1.2	1.2	—	P Type Boring Bar (ⒶA261)
	MSCN63	18.8	4.76	1.6	1.6	1.6	1.6	DOUBLE CLAMP Holder (For Heavy Cutting) (ⒶA169)
	MSSN63	18.8	4.76	1.6	1.6	1.6	1.6	DOUBLE CLAMP Holder (For Heavy Cutting) (ⒶA172—A174)
	CT32T1	9.525	15.03	3.18	—	—	—	SET Type Holder (ⒶA340)
	PT32T1R	8.28	13.34	3.18	—	—	—	SNT Type Boring Bar (ⒶA342)
	32T2R	8.28	13.19	3.18	—	—	—	
	42TR	10.85	17.20	3.18	—	—	—	

Geometry	Order Number	Dimensions (mm)						Tool Holder
		a	b	c	d	e	f	
	<b>PV321</b>	9.52	3.18	0.4	0.4	—	—	<b>MP</b> Type Holder (⊕A180, A181) <b>D</b> Type Boring Head (⊕A269)
	<b>322</b>	9.52	3.18	0.8	0.8	—	—	
	<b>323</b>	9.52	3.18	1.2	1.2	—	—	
	<b>SPSVN32</b>	8.06	3.18	0.3	0.3	—	—	<b>SP</b> Type Holder (⊕A188, A189) <b>HSK</b> Tool Holder (⊕E011)
	<b>SPSCN42</b>	12.7	3.18	—	—	—	—	<b>SP</b> Holder (⊕A184)
	<b>SPSDN32</b>	8.68	3.18	—	—	—	—	<b>SP</b> Holder (⊕A185)
	<b>SPSSN42</b>	12.7	3.18	—	—	—	—	<b>SP</b> Holder (⊕A186)
	<b>SPSTN32</b>	9.52	3.18	—	—	—	—	<b>SP</b> Holder (⊕A187)
	<b>STASX400N</b>	11.00	3.00	0.4	0.4	0.4	0.4	<b>ASX400</b> Type Cutter (⊕C073)
	<b>STASX445N</b>	10.76	3.00	—	—	—	—	<b>ASX445</b> Type Cutter (⊕C057)
	<b>STBS500N</b>	12.7	3.18	0.8	0.8	0.8	0.8	
	<b>WPSTN33</b>	9.3	4.76	0.8	0.4	1.2	—	<b>WP</b> Type Holder (⊕A176–A178)
	<b>43</b>	12.50	4.76	0.8	0.4	1.2	—	
	* <b>WPSWC43</b>	12.50	4.76	0.4	0.8	1.2	—	<b>M</b> Type Boring Bar (⊕A265)
	<b>WPSWN43</b>	12.50	4.76	0.4	0.8	1.2	—	

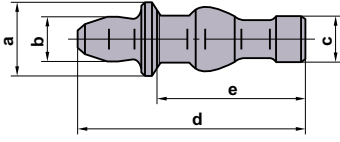
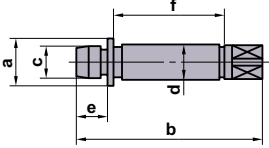
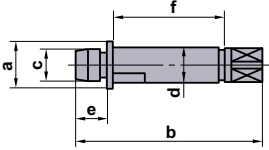


# SPARE PARTS

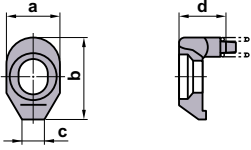
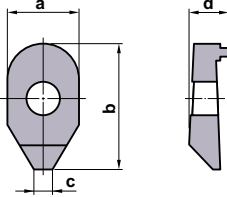
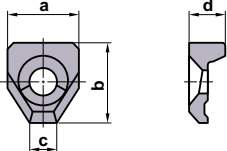
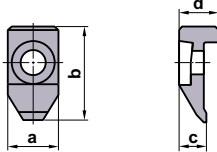
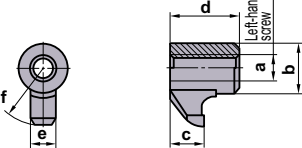
## SHIM PIN AND CLAMP LEVER

Geometry	Order Number	Dimensions (mm)					Tool Holder
		a	b	c	d	e	
	<b>BCP141</b>	3.0	1.4	5.6	—	—	<b>SP</b> Type Holder (☉A188, A189) <b>F</b> Type Boring Bar (☉A252) <b>HSK</b> System (☉E011)
	<b>201</b>	4.3	2	7.4	—	—	
	<b>202</b>	4.3	2	6.4	—	—	
	<b>251</b>	4.8	2.5	7.4	—	—	
	<b>252</b>	4.8	2.5	6.4	—	—	
	<b>301</b>	5.3	3	7.4	—	—	
	<b>401</b>	6.3	4	7.4	—	—	
	<b>CCP33</b>	6.5	3.66	M5×0.8	18.5	3	<b>WP</b> Holder (☉A176—A178, A183) <b>M</b> Type Boring Bar (☉A265)
	<b>34</b>	7.5	5.0	M6×1.0	18.5	3	
	<b>44</b>	7.5	5.0	M5×0.8	14.2	3	
	<b>LLCL12S</b>	2.1	9.3	5.6	—	—	<b>LL</b> Type Holder (☉A168—A176, A178, A182) <b>P</b> Type Boring Bar (☉A261—A264) <b>D</b> Type Boring Head (☉A267, A268) <b>KSMG</b> Type Cutter (☉C150) <b>HSK</b> System (☉E004, E005, E007, E008, E010)
	<b>13</b>	3.6	10	12.5	—	—	
	<b>13S</b>	3.6	10	7.8	—	—	
	<b>14</b>	4.7	13.4	13.2	—	—	
	<b>14S</b>	4.7	13.6	12.2	—	—	
	<b>15</b>	6.0	19	17	—	—	
	<b>16</b>	7.5	20.8	21	—	—	
	<b>18</b>	8.6	25.4	25.2	—	—	
	<b>23</b>	3.6	12.0	11.5	—	—	
	<b>23S</b>	3.6	11.6	9.5	—	—	
	<b>24</b>	4.7	16.2	14.8	—	—	
	<b>110</b>	3.0	10.7	11.6	—	—	
	<b>112</b>	3.5	13	13.5	—	—	
	<b>116</b>	4.5	18.5	18	—	—	
	<b>120</b>	5.6	20.3	19	—	—	
	<b>125</b>	6	24	24	—	—	
	<b>132</b>	8	30	27	—	—	
	<b>LLP13</b>	5.55	4.85	5.3	—	—	<b>LL</b> Type Holder (☉A168—A182, A190) <b>DOUBLE CLAMP</b> Holder (☉A168, A170, A177, A179—A182) <b>DOUBLE CLAMP DIMPLE BAR</b> (☉A242—A244) <b>P</b> Type Boring Bar (☉A261—A264) <b>D</b> Type Boring Head (☉A267, A268) <b>KSMG</b> Type Cutter (☉C150) <b>HSK</b> System (☉E004—E010)
	<b>14</b>	7.25	6.55	5.8	—	—	
	<b>15</b>	8.8	8.05	8.6	—	—	
	<b>16</b>	10.85	9.85	11.1	—	—	
	<b>18</b>	15.35	13.05	12.0	—	—	
	<b>23</b>	5.55	4.85	6.8	—	—	
	<b>24</b>	7.25	6.55	9.1	—	—	
	<b>MP6</b>	11.9	7.8	M10×1	22.1	15	<b>DOUBLE CLAMP</b> Holder (For Heavy Cutting) (☉A169, A172, A174)

## LOCK PIN

Geometry	Order Number	Dimensions (mm)						Tool Holder
		a	b	c	d	e	f	
	<b>P11S</b>	6	3.7	4	17	11.1	—	<b>MP</b> Type Holder (☉A179—A181) <b>D</b> Type Boring Head (☉A269, A316, A354)
	<b>21S</b>	7.5	4.9	4.5	17.2	11.5	—	
	<b>P221US</b>	4	18	2.11	3.5	3.3	7.7	
	<b>321US</b>	5.5	18	3.64	5.0	3.3	7.5	
	<b>322US</b>	5.5	21	3.64	5.0	3.3	10.5	
	<b>323US</b>	5.5	24	3.64	5.0	3.3	13.5	
	<b>332US</b>	5.5	21	3.64	5.0	4.9	8.9	
	<b>P323WS</b>	5.8	24	3.64	5.0	3.3	12.9	
	<b>333WS</b>	5.8	24	3.64	5.0	4.9	11.3	
	<b>334WS</b>	5.8	30	3.64	5.0	4.9	17.3	
	<b>433W</b>	7.8	24	5.03	7.0	4.9	10.8	
	<b>434W</b>	7.8	30	5.03	7.0	4.9	16.8	

## CLAMP BRIDGE

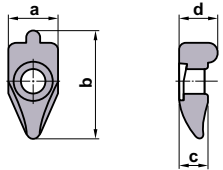
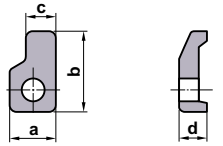
Geometry	Order Number	Dimensions (mm)						Tool Holder
		a	b	c	d	e	f	
	<b>AMS3</b>	7	12	3	3.3	—	—	<b>AJX</b> Type Cutter (☉C114, C116—C118)
	<b>4</b>	9	13.5	3	3.8	—	—	
	<b>5</b>	10	15	3.5	5	—	—	
	<b>CA142</b>	8	15	4	7	—	—	
	<b>150</b>	9	16	4.5	7	—	—	
	<b>151</b>	10	17	5	7	—	—	
	<b>152</b>	10	19	5	7	—	—	
	<b>153</b>	10	24	5	7	—	—	
	<b>161</b>	13	20	6	8	—	—	
	<b>162</b>	13	24	6	8	—	—	
	<b>163</b>	13	27	6	8	—	—	
	<b>181</b>	16	30	8	10	—	—	
<b>183</b>	16	37	8	10	—	—		
	<b>CCK13</b>	15	18.5	6	9	—	—	<b>WP</b> Type Holder (☉A176—A178, A183) <b>M</b> Type Boring Bar (☉A265)
	<b>14</b>	19	22	8	9.5	—	—	
	<b>CCTC1</b>	13	25	7	10.2	—	—	
	<b>CK231</b>	M6×1	8	4	7.5	4.5	9.5	
	<b>232</b>	M6×1	8	4.5	8	4.5	11.5	
	<b>341</b>	M8×1	11	5.5	13.5	6	13.5	
	<b>342</b>	M8×1	11	6	14	6	16.5	

# SPARE PARTS

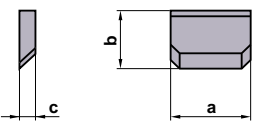
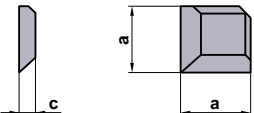
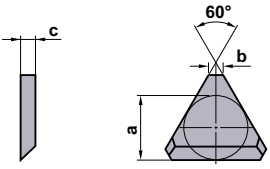
## CLAMP BRIDGE

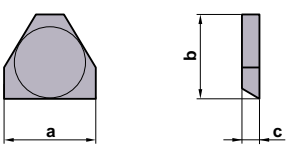
Geometry	Order Number	Dimensions (mm)						Tool Holder
		a	b	c	d	e	f	
	<b>CKW6</b>	10.9	22.5	9.2	16.8	5	M8×1	<b>DOUBLE CLAMP</b> Holder (For Heavy Cutting) (☉A169, A172, A174)
	<b>DCK2211</b>	11	22	6.57	11.1	—	—	<b>DOUBLE CLAMP</b> Holder (☉A168, A170, A177, A179–A182) <b>DOUBLE CLAMP DIMPLE BAR</b> (☉A242–A244)
	<b>2613</b>	13	26.5	7.35	12.9	—	—	
	<b>3113</b>	13	31	9	14.5	—	—	
	<b>DGK2R/L</b>	13.7	26.5	1.2	9	—	—	<b>DG</b> Type Holder (☉A278–A297) <b>HSK</b> System (☉E012–E017)
	<b>3R/L</b>	13.7	26.5	2	9	—	—	
	<b>4R/L</b>	13.7	26.5	3	9	—	—	
	<b>5R/L</b>	13.7	26.5	4	9	—	—	
	<b>6R/L</b>	13.7	26.5	5	9	—	—	
	<b>7R/L</b>	13.7	26.5	6	9	—	—	
	<b>KGC1</b>	12.0	15.0	M7×0.75	—	—	—	<b>UG</b> Type Holder (☉A300)
	<b>LK1</b>	8	14.3	4.5	5.9	—	—	<b>F</b> Type Boring Bar (☉A312, A352)
	<b>MHK5NR/L</b>	15.5	23.5	8.1	12.1	—	—	
	<b>MTK1R/L</b>	13	17.5	5	12	—	—	<b>MG1</b> Type Holder (☉A303) <b>MG</b> Type Holder (☉A304) <b>MT</b> Type Holder (☉A344) <b>MT1</b> Type Holder (☉A344) <b>HSK</b> System (☉E020, E023)
	<b>MTK2R/L</b>	18	28	7	14	—	—	
	<b>SETK51</b>	6.8	14.5	2.9	8	—	—	<b>MMTE</b> Type Holder (☉A330) <b>MMTI</b> Type Holder (☉A331) <b>SET</b> Type Holder (☉A340) <b>SNT</b> Type Holder (☉A342) <b>HSK</b> System (☉E022)
	<b>61</b>	8.9	18.1	4.1	8.6	—	—	

## CLAMP BRIDGE

Geometry	Order Number	Dimensions (mm)				Tool Holder
		a	b	c	d	
	<b>SRK1R</b>	9.4	21	5.5	7.5	SRE Type Cutter (C124)
	<b>UCR</b>	12	24	8	7	

## BREAKER PIECE

Geometry	Order Number	Dimensions (mm)					Tool Holder
		a	b	c	Inscribed Circle	Breaker Width	
	<b>CBS3</b>	9.4	8.0	1.5	9.525	1.5	
	<b>4</b>	12.6	9.2	2.5	12.70	3.5	
	<b>4N</b>	12.6	10.2	2.5	12.70	2.5	
	<b>4F</b>	12.6	11.2	2.5	12.70	1.5	
	<b>6</b>	18.9	14.6	2.5	19.05	4.5	
	<b>6N</b>	18.9	16.6	2.5	19.05	2.5	
	<b>CBS3D</b>	8.0	—	1.5	9.525	1.5	
	<b>4D</b>	10.2	—	2.5	12.70	2.5	
	<b>6D</b>	15.6	—	2.5	19.05	3.5	
	<b>CBT2</b>	5.33	1.4	1.5	6.35	1.5	F Type Boring Bar (A252) *For positive inserts, the breaker width is 0.5mm larger than the figures in the list.
	<b>2N</b>	5.67	1.4	1.5	6.35	1.0	
	<b>3</b>	7.20	1.4	2.5	9.525	3.5	
	<b>3N</b>	7.87	1.4	2.5	9.525	2.5	
	<b>3F</b>	8.53	1.4	2.5	9.525	1.5	
	<b>4</b>	9.73	1.4	2.5	12.70	4.5	
	<b>4N</b>	11.07	1.4	2.5	12.70	2.5	
<b>4F</b>	11.73	1.4	2.5	12.70	1.5		

Geometry	Order Number	Dimensions (mm)			Thread Pitch (mm)	Tool Holder
		a	b	c		
	<b>CBT3106</b>	11.5	10.6	2.0	2.5–3.0	
	<b>3113</b>	11.5	11.3	2.0	1.5–2.0	
	<b>3120</b>	11.5	12	2.0	0.75–1.25	
	<b>4108</b>	13.3	10.8	2.0	3.5–4.0	
	<b>4128</b>	13.3	12.8	2.0	4.5–5.0	



# ANTI SEIZE LUBRICANT

## ANTI SEIZE LUBRICANT

Shape	Order Number	Stock	Volume (g)
	MK1K	★	20
	MK1KS	★	3

SPARE PARTS | ANTI SEIZE LUBRICANT