

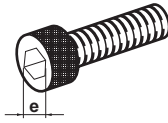
SPARE PARTS

IDENTIFICATION	N002
SPARE PARTS	
CLAMP SCREW	N003
SET BOLT	N008
SHIM	N010
SHIM SCREW	N013
PIN / RING / CLAMP LEVER	N014
SPRING	N014
CLAMP BRIDGE	N015
BREAKER PIECE	N016
ANTI SEIZE LUBRICANT	N017



IDENTIFICATION

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



H SC 060 05

Length

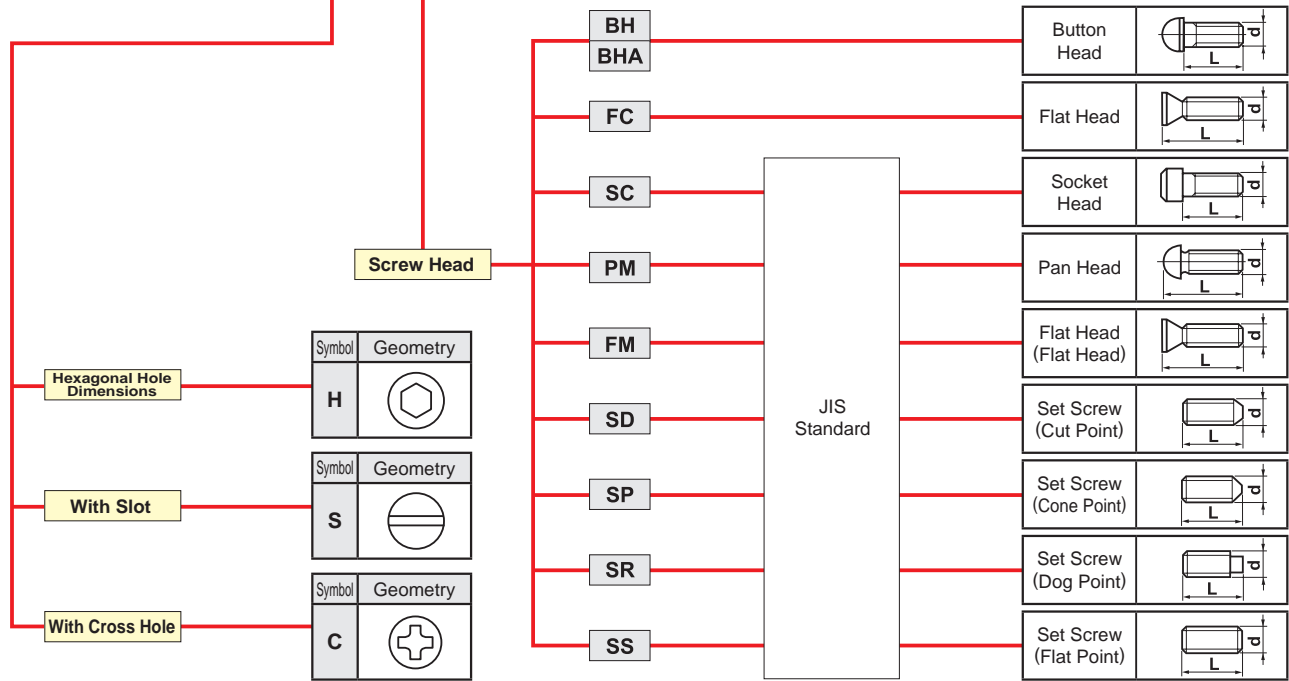
Example Symbol	L
05	.197
10	.394
20	.787

Screw Diameter

Example Symbol	d
050	M5
060	M6

Hexagonal Hole Dimensions

Diameter (Metric)	Pitch (mm)	e Dimensions			
		HBH	HFC	HSC	HS
M2	.4	—	—	.059	.035
M2.5	.45	—	—	.079	.051
M3	.5	.079	.079	.098	.059
M4	.7	.098	.098	.118	.079
M5	.8	.118	.118	.157	.098
M6	1.0	.157	.157	.197	.118
M8	1.25	.197	.197	.236	.157
M10	1.5	.236	.236	.315	.197



IDENTIFICATION OF WRENCH

HKY 15 R

Symbol	Wrench
HKY	Hexagonal Wrench
TKY	Torx Wrench
NKY	Torx Wrench
TIP	Torx plus® Wrench

Hexagonal Wrench		
Symbol	e	
15	.059	
20	.079	
25	.098	
30	.118	
35	.138	
40	.157	
50	.197	
60	.236	

Torx Wrench			
Symbol	e	Size	
06	.071	T6	
08	.094	T8	
10	.110	T10	
15	.130	T15	
20	.154	T20	
25	.177	T25	
27	.201	T27	
30	.217	T30	

Torx plus® Wrench			
Symbol	e	Size	
06	.071	6IP	
07	.083	7IP	
08	.094	8IP	
10	.110	10IP	
15	.130	15IP	
25	.154	25IP	

R	Standard L Wrench	
L	Long L Wrench	
T	T Wrench	
F	Flag Wrench	
FS	Flag Wrench	
W	Flag Wrench	
D	Driver	
DS	Driver	

IMX 10 - WR

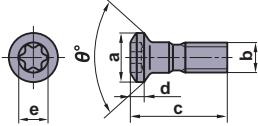
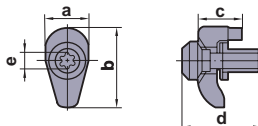
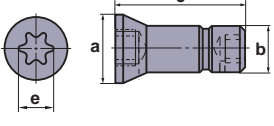
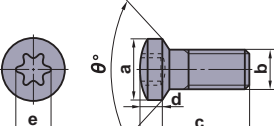
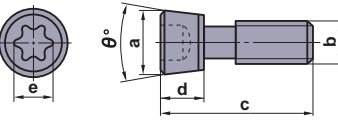
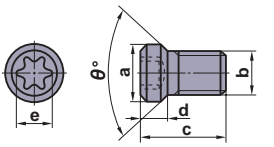
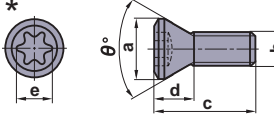
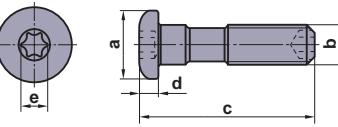
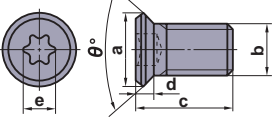
Symbol	Wrench
IMX	IMX Series

Hexagonal Wrench					
Symbol	mm	B			
		10	12	16	20
10	12	16	20	25	
10	12	16	20	25	

WR

SPARE PARTS

CLAMP SCREW

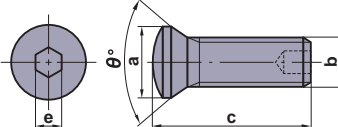
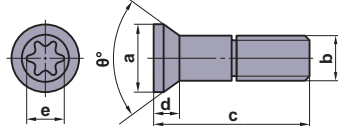
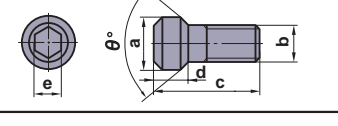
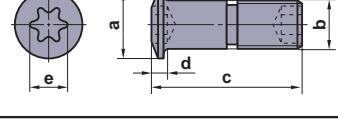
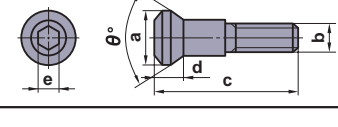
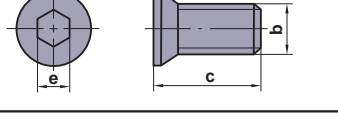
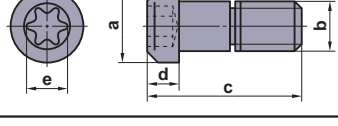
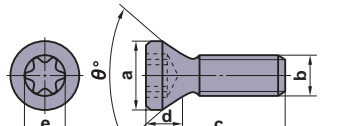
Geometry	Order Number	Dimensions (inch)						Torque (lbf-in)	Tool Holder
		a	b	c	d	e	θ°		
	AJS3010T10	.197	M3x0.5	.394	.059	T10	120	22	AJX (L206) PMC (L288) AJX (L206) PMC (L288)
	AJS4012T15	.276	M4x0.7	.472	.087	T15	120	31	
	AJS5014T25	.315	M5x0.8	.551	.106	T25	120	66	
	BC5	.354	.717	.335	.669	T20	—	44	
	BLS02	.165	M3	.270	—	T08	—	18	
	BLS03	.235	M4	.335	—	T15	—	27	
	BLS04	.268	M5	.356	—	T20	—	35	
	BLS05	.294	M5	.504	—	T20	—	44	
	BLS06	.317	M5	.610	—	T20	—	53	
	BLS08	.375	M6	.803	—	T30	—	58	
	BRS105	.312	M5x0.8	.543	.118	T25	120	66	
	CAS51T	.312	M5x0.8	.748	.197	T25	10	75	
 	CS250T	.146	M2.5x0.45	.236	.071	T8	90	8.9	MILLING TOOLS (L001) BRP (L252) MMTI (G026) BRP (L252) AL Type Holder (C041) AHX640S (L048)
	*CS250560T	.154	M2.5x0.45	.205	.098	T8	60	8.9	
	CS300790TS	.185	M3x0.5	.276	.089	T10	90	18	
	CS300890T	.161	M3x0.5	.315	.081	T8	90	8.9	
	*CS350760T	.217	M3.5x0.6	.276	.157	T15	60	31	
	CS350790T	.189	M3.5x0.6	.276	.093	T10	90	31	
	*CS350860T	.217	M3.5x0.6	.331	.157	T15	60	31	
	CS350990T	.189	M3.5x0.6	.354	.093	T10	90	22	
	CS400990T	.236	M4x0.7	.354	.110	T15	90	31	
	CS401160T	.224	M4x0.7	.433	.177	T15	60	31	
	CS451190T	.248	M4.5x0.75	.433	.114	T20	90	44	
	CS501290T	.276	M5x0.8	.433	.138	T25	90	66	
*CS5015060T	.283	M5x0.8	.591	.093	T20	60	44		
	DC0520T	.335	M5x0.8	.886	.098	T15	—	31	DOUBLE CLAMP Type Holder (C008) DOUBLE CLAMP DIMPLE BAR (E021) HSK-T Tool Holder (H001)
	DC0621T	.413	M6x1.0	.984	.157	T20	—	44	
	FC400890T	.220	M4x0.7	.295	.051	T10	90	22	AL Type Holder (C042) AL Type Boring Bar (E028)

SPARE PARTS

CLAMP SCREW

Geometry	Order Number	Dimensions (inch)						Torque (lbf-in)	Tool Holder
		a	b	c	d	e	θ°		
	GTS1	.220	6-40UNF	.500	—	T10	—	14	
	GTS2	.310	10-32UNF	.750	—	T20	—	45	
	GTS3	.350	10-32UNF	.750	—	T20	—	45	
	GY05016S	.343	M5x0.8	.630	.138	T20	90	44	GY Series (⊕F040)
	GY06013M	.472	M6x1.0	.709	.197	T30	—	53	GY Series (⊕F040)
	JSS6	.272	M6x0.75	.177	.059	.031	—	—	
	JSS7	.315	M7x0.75	.173	.059	.039	—	—	
	LLCS105	M5x0.8	M5x0.8	.394	.059	.787	—	13	HSK-T Tool Holder (⊕H001)
	LLCS106	.236	M6x1	.650	.138	.098	—	19	
	LLCS108	.315	M8x1.25	.827	.256	.118	—	29	
<p>Left-Hand Screw</p> <p>Right-Hand Screw</p> <p>*Without Hexagonal Hole on Right-Hand Screw</p> <p>☆Torx Screw</p>	* LS21	M10x1.5	1.260	.472	.472	.197	—	80	MILLING TOOLS (⊕L001)
	* LS24	M8x1.25	.945	.335	.335	.157	—	69	
	☆ LS10T	M7x0.75	.551	.236	.197	T25	—	71	
	☆ LS15T	M7x0.75	.709	.276	.276	T25	—	71	
	☆ LS19T	M6x0.75	.433	.157	.157	T15	—	44	
	☆ LS10TS	M7x0.75	.512	.236	.157	T25	—	75	
<p>Left-Hand Screw</p> <p>Right-Hand Screw</p>	LS0622T	M6x0.75	.866	.315	.315	T15	—	53	AHX640W (⊕L060)
	NS251	.142	M2.5x0.45	.276	—	.087	60	6.2	SMALL TOOLS (⊕D001)
	NS401	.228	M4x0.7	.236	—	.142	60	31	
	NS402W	.230	M4x0.7	.394	—	.087	60	6.2	SMALL TOOLS (⊕D001)
	NS403W	.230	M4x0.7	.472	—	.087	60	6.2	
	NS404W	.228	M4x0.7	.394	—	.087	90	6.2	

CLAMP SCREW

Geometry	Order Number	Dimensions (inch)							Torque (lbf-in)	Tool Holder
		a	b	c	d	e	θ°			
	NS501W	.315	M5x0.8	.630	—	.098	120	19	SMALL TOOLS (⊕D001)	
	NS502W	.315	M5x0.8	.787	—	.098	120	19		
	RS3008TS	.169	M3x0.35	.331	.079	T8	61	13	SRF/SUF Series (⊕L262)	
	RS3008T	.169	M3x0.35	.339	.079	T8	61	13		
	RS3510T	.197	M3.5x0.35	.394	.091	T10	61	22		
	RS4015T	.236	M4x0.5	.551	.106	T15	61	29		
	RS5020T	.319	M5x0.5	.646	.142	T20	61	44		
	RS6025T	.374	M6x0.75	.846	.165	T25	61	66		
	RS8030T	.472	M8x0.75	.984	.197	T30	61	88		
	S2	.157	M2.5x0.45	.256	.091	.079	92	14		
	S3	.177	M3x0.5	.303	.094	.079	92	13		
	SETS51	.268	M5x0.8	.583	.059	T15	—	31	HSK-T Tool Holder (⊕H001) MMTE (⊕G021) MMTI (⊕G026)	
	SETS61	.315	M6x1	.787	.071	T20	—	44		
	SLCS105	.394	M5x0.8	.984	.248	.157	90	62		
	S34	—	10-32UNF	.313	—	.078	—	—		
	S46	—	1/4-28UNF	.500	—	.094	—	—		
	SRS5	.264	M5x0.8	.630	.138	T20	—	44		
	TPS20	.106	M2x0.4	.138	.051	6IP	60	4.5	ARP (⊕L236)	
	TPS20-1	.104	M2x0.4	.185	.094	6IP	60	5.3	MXV (⊕M176)	
	TPS22	.118	M2.2x0.45	.185	.063	7IP	60	4.5	ARP (⊕L236)	
	TPS22S	.118	M2.2x0.45	.165	.063	7IP	60	4.5	ARP (⊕L236)	
	TPS25	.130	M2.5x0.45	.217	.067	7IP	60	8.9	APX3000 (⊕L096)	
	TPS25-1	.130	M2.5x0.45	.256	.067	7IP	60	8.9	APX3000 (⊕L096)	
	TPS27F1	.146	M2.7x0.35	.256	.071	7IP	60	8.9	VPX200 (⊕L124)	
	TPS27F2	.146	M2.7x0.35	.315	.071	7IP	60	8.9	VPX200 (⊕L124)	
	TPS3	.154	M3x0.5	.264	.055	10IP	60	17.7	MXV (⊕M177)	
	TPS35	.209	M3.5x0.6	.453	.110	15IP	60	31	ASX445 (⊕L030) ASX400 (⊕L082) PMR (⊕L290)	
	TPS351	.189	M3.5x0.6	.281	.055	10IP	60	22	MXV (⊕M177)	
	TPS351B	.201	M3.5x0.6	.283	.092	10IP	60	22	ARP (⊕L236)	
	TPS4	.209	M4x0.7	.315	.102	15IP	60	31	APX4000 (⊕L110) ARP (⊕L236) MXV (⊕M170)	
	TPS40F1	.209	M4x0.5	.413	.110	15IP	60	27	VPX300 (⊕L140)	
	TPS4R	.252	M4x0.7	.417	.087	15IP	R4	31	WSX445 (⊕L018)	
	TPS4S	.209	M4x0.7	.276	.102	15IP	60	31		
	TPS43	.209	M4x0.7	.394	.102	15IP	60	31	APX4000 (⊕L110) MXV (⊕M170)	
	TPS54	.268	M5x0.8	.472	.126	25IP	60	66	MXV (⊕M179)	

SPARE PARTS

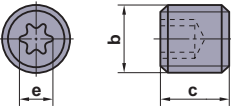
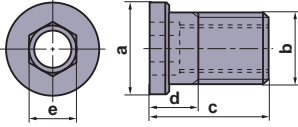
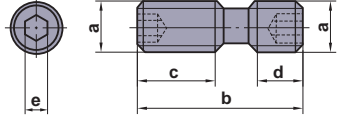
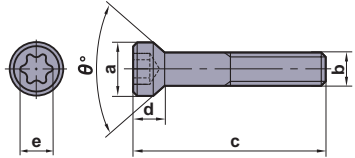
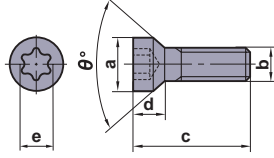
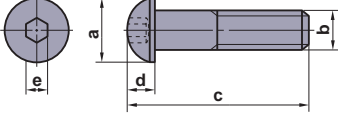
Z

SPARE PARTS

CLAMP SCREW

Geometry	Order Number	Dimensions (inch)						Torque (lbf-in)	Tool Holder
		a	b	c	d	e	θ°		
	* TS16	.098	M1.6x0.35	.126	.063	T6	60	5.3	MICRO-DEX (E029)
	TS2	.106	M2x0.4	.181	.055	T6	60	5.3	
	* TS2A	.106	M2x0.4	.177	.047	T6	60	5.3	AQX (L196)
	TS2C	.106	M2x0.4	.150	.055	T6	60	5.3	
	☆ TS2D	.150	M2x0.4	.209	.076	T6	82	5.3	DIMPLE BAR (E007)
	TS21	.106	M2x0.4	.134	.055	T6	60	5.3	S Type Boring Bar (E012)
	* TS22	.118	M2.2x0.45	.197	.047	T6	60	5.3	
	* TS25	.130	M2.5x0.45	.217	.067	T8	60	8.9	AQX (L196) AJX (L206)
	☆ TS25D	.172	M2.5x0.45	.244	.087	T8	82	8.9	DIMPLE BAR (E007)
	* TS25H	.142	M2.5x0.45	.217	.079	T8	60	15	SRM2 (L274)
	TS202	.106	M2x0.4	.217	.071	T6	60	5.3	
	TS253	.130	M2.5x0.45	.177	.067	T8	60	8.9	MILLING TOOLS (L001)
	TS254	.130	M2.5x0.45	.276	.067	T8	60	8.9	SMALL TOOLS (D001) PMF (L291)
	* TS255	.138	M2.5x0.45	.295	.063	T8	60	8.9	
	TS3	.154	M3x0.5	.236	.079	T8	60	8.9	
	TS3D	.197	M3x0.5	.236	.091	T10	82	22	DIMPLE BAR (E006)
	TS3SB	.173	M3x0.5	.315	.079	T8	80	13	AXD4000 (L156)
	TS3SBS	.173	M3x0.5	.256	.080	T8	80	13	AXD4000 (L156)
	TS31D	.189	M3x0.5	.283	.087	T10	82	22	DIMPLE BAR (E007)
	* TS32	.154	M3x0.5	.295	.079	T8	60	18	SRM2 (L274)
	* TS33	.154	M3x0.5	.264	.079	T8	60	13	AQX (L196) AJX (L206) PMC (L288)
	TS35	.189	M3.5x0.6	.256	.094	T10	60	22	
	* TS35D	.209	M3.5x0.6	.472	.110	T15	60	31	HSK Tool Holder (H013)
	TS35R	.224	M3.5x0.6	.394	.083	T15	-	31	AHX440S (L038) AHX475S (L044)
	TS351	.189	M3.5x0.6	.283	.094	T10	60	22	AJX (L206) SRM2 (L274) PMC (L288)
	TS352	.189	M3.5x0.6	.394	.118	T10	60	22	VFX5 (L186)
	TS4	.213	M4x0.7	.315	.102	T15	60	31	CFSP (L260)
	TS4D	.220	M4x0.7	.303	.098	T15	82	31	DIMPLE BAR (E006)
	TS4S	.213	M4x0.7	.276	.093	T15	80	31	
	* TS4SL	.213	M4x0.7	.315	.096	T15	80	35	BXD4000 (L176)
	TS4SB	.228	M4x0.7	.354	.105	T15	80	31	AXD7000 (L166)
	* TS4SBL	.228	M4x0.7	.413	.105	T15	80	31	GY Series (F001) AXD7000 (L166)
	* TS4SBL	.228	M4x0.7	.571	.105	T15	80	31	
	TS42	.213	M4x0.7	.236	.102	T15	60	31	
	TS43	.213	M4x0.7	.394	.102	T15	60	31	AJX (L206) BRP (L252) PMC (L288) SRM2 (L274)
	TS44	.213	M4x0.7	.472	.102	T15	60	31	
	TS405	.213	M4x0.7	.551	.102	T15	60	31	VAS400 (L088)
	TS406	.213	M4x0.7	.610	.102	T15	60	31	
	TS407	.213	M4x0.7	.354	.102	T15	60	31	AQX (L196) AJX (L206)
	TS450	.232	M4.5x0.75	.512	.142	T20	60	44	VFX6 (L190)
	TS5S	.268	M5x0.8	.354	.115	T25	80	66	
	TS5	.268	M5x0.8	.354	.126	T25	60	66	CFSP (L260)
	TS5L	.268	M5x0.8	.591	.115	T25	80	66	
	TS5R	.272	M5x0.8	.472	.138	T20	60	44	WJX (L224)
	TS52	.268	M5x0.8	.315	.126	T25	60	66	CFSP (L260)
	TS53	.268	M5x0.8	.630	.126	T25	60	66	
	TS54	.268	M5x0.8	.472	.126	T25	60	66	AJX (L206)
	TS55	.268	M5x0.8	.413	.126	T25	60	66	GY Series (F001) AQX (L196) SPX (L180) SRM2 (L274)
	* TS6S	.335	M6x1.0	.512	.173	T30	60	89	AQX (L196) SRM2 (L274)
	* TS6	.335	M6x1.0	.630	.173	T30	60	89	SRM2 (L274)

CLAMP SCREW

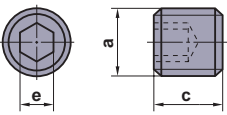
Geometry	Order Number	Dimensions (inch)						Torque (lbf-in)	Tool Holder
		a	b	c	d	e	θ°		
	TSS04005	—	M4x0.7	.197	—	T8	—	PMF (L291) FMAX (L070)	
	TSS04505S	—	M4.5x0.5	.197	—	T10	—		
	WCS503507H	.248	M5x0.5	.276	.130	.138	—	ASX445 (L030) ASX400 (L082) PMR (L290)	
	XNS35	10-32UNF	.625	.220	.220	.094	—	30	M Type Tool Holder (C007) M Type Boring Bar (E024)
	XNS36	10-32UNF	.750	.250	.250	.094	—	30	
	XNS46	1/4-28UNF	.750	.310	.310	.125	—	45	
	XNS47	1/4-28UNF	.875	.280	.280	.125	—	45	
	XNS48	1/4-28UNF	1.000	.370	.370	.125	—	45	
	XNS58	5/16-24UNF	1.000	.500	.280	.156	—	70	
	XNS59	5/16-24UNF	1.120	.470	.410	.156	—	70	
	XNS510	5/16-24UNF	1.125	.500	.500	.156	—	70	
	XNS610	3/8-24UNF	1.250	.500	.500	.188	—	135	
	WS254012T	.157	M2.5x0.45	.453	.087	T8	80	18	
	WS254013T	.157	M2.5x0.45	.492	.087	T8	80	18	
	WS254014T	.157	M2.5x0.45	.531	.087	T8	80	18	
	WS254015T	.157	M2.5x0.45	.571	.087	T8	80	18	
	WS254016T	.157	M2.5x0.45	.610	.087	T8	80	18	
	WS304517T	.177	M3x0.5	.650	.134	T10	60	31	
	WS304518T	.177	M3x0.5	.689	.134	T10	60	31	
	WS355520T	.217	M3.5x0.6	.768	.154	T15	60	49	
	WS355521T	.217	M3.5x0.6	.807	.154	T15	60	49	
	WS406023T	.236	M4x0.7	.866	.173	T25	60	75	
	WS406024T	.236	M4x0.7	.906	.173	T25	60	75	
	WS508026T	.315	M5x0.8	.984	.205	T27	60	106	
	WS508027T	.315	M5x0.8	1.024	.205	T27	60	106	
	WS203107TPS	.120	M2x0.25	.287	.067	6IP	60	8.9	
	WS203108TPS	.120	M2x0.25	.327	.075	6IP	60	8.9	
	WS253909TPS	.152	M2.5x0.35	.374	.094	8IP	60	18	
	WS304912TPS	.191	M3x0.35	.472	.128	10IP	60	22	
	HBH04008	.295	M4x0.7	.417	.110	.098	—	0.8	PMF (L291) HSK-T Tool Holder (H001)
	HBH06012	.413	M6x1	.630	.157	.157	—	4	
	HBH06020	.413	M6x1	.945	.157	.157	—	4	
	HBH08040	.551	M8x1.25	1.772	.197	.197	—	6.8	

SPARE PARTS

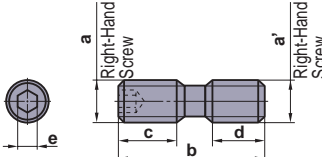
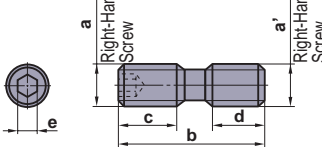
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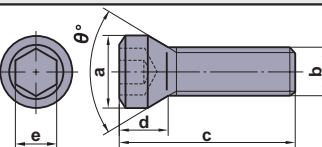
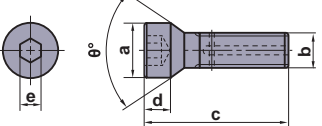
SPARE PARTS

CLAMP SCREW

Geometry	Order Number	Dimensions (inch)						Torque (lbf-ft)	Tool Holder
		a	b	c	d	e	θ°		
	HSS04004G	—	M4x0.7	.157	—	.079	—	1	HSK-T Tool Holder (H001) MVX (M176) FMAX (L070)
	HSS05004	—	M5x0.8	.197	—	.098	—	4	
	HSS05005G	—	M5x0.8	.197	—	.098	—	4	
	HSS06006	—	M6x1	.236	—	.118	—	6.8	
	HSS06006G	—	M6x1	.236	—	.118	—	6.8	
	HSS08008G	—	M8x1.25	.315	—	.157	—	16	
	HSS05006	—	M5x0.8	.236	—	.098	—	4	
	HSS05012	—	M5x0.8	.472	—	.098	—	4	
	HSS06008	—	M6x1	.315	—	.118	—	6.8	
	HSS08005	—	M8x1.25	.197	—	.157	—	16	
	HSS08006	—	M8x1.25	.236	—	.157	—	16	
	HSS08008	—	M8x1.25	.315	—	.157	—	16	
	HSS08010	—	M8x1.25	.394	—	.157	—	16	
	HSS08012	—	M8x1.25	.472	—	.157	—	16	
	HSS10010	—	M10x1.5	.394	—	.197	—	33	
	HSS10012	—	M10x1.5	.472	—	.197	—	33	
	HSS10016	—	M10x1.5	.630	—	.197	—	33	
	HSS12016	—	M12x1.75	.630	—	.236	—	56	
	HSS12018	—	M12x1.75	.709	—	.236	—	56	
	HSS12025	—	M12x1.75	.984	—	.236	—	56	
HSS12030	—	M12x1.75	1.181	—	.236	—	56		
HSS14030	—	M14x2	1.181	—	.236	—	56		
HSS14035	—	M14x2	1.378	—	.236	—	56		
HSS16012	—	M16x2	.472	—	.315	—	140		
HSS16020	—	M16x2	.787	—	.315	—	140		

SET BOLT

Geometry	Order Number	Dimensions (inch)						Torque (lbf-ft)	Tool Holder
		a	a'	b	c	d	e		
	HDS10031	M10x1.0	M10x1.5	1.220	.551	.472	.197	80	PMF (L291)
	HDSU37513	5/16-32UNEF	3/8-24UNF	1.260	.472	.433	.156	54	BOE (L256) BRP (L252)

Geometry	Order Number	Dimensions (inch)						Torque (lbf-ft)	Tool Holder
		a	b	c	d	e	θ°		
	BOE4S06U	.562	3/8-24UNF	1.358	.374	.313	60	29	BOE (L256)
	HFF08043H	.433	M8x1.25	1.693	.197	.197	90	73	AXD4000 (L156) BXD4000 (L176)

SET BOLT

Geometry	Order Number	Dimensions (inch)						Torque (lbf-ft)	Tool Holder
		a	b	c	d	e	θ°		
	HSCU25011H	.370	1/4-28UNF	1.347	.250	.156	—	120	WSX445 (ⓄL018) AJX (ⓄL206) APX3000 (ⓄL096) APX4000 (ⓄL110) AXD7000 (ⓄL166) BXD4000 (ⓄL176)
	HSCU25014H	.370	1/4-28UNF	1.647	.250	.156	—	120	
	HSCU37513H	.562	3/8-24UNF	1.625	.375	.250	—	348	
	HSCU50014H	.750	1/2-20UNF	1.875	.500	.375	—	708	
	HSCU62516H	.938	5/8-18UNF	2.250	.625	.500	—	960	
	HSCU75016H	1.125	3/4-16UNF	2.375	.750	.625	—	1320	
	HSCUF25013	.375	1/4-28UNF	1.500	.250	.188	—	120	APX4000 (ⓄL110) SPX (ⓄL180)
	HSCUF37513	.562	3/8-24UNF	1.625	.375	.313	—	348	
	HSCUF37520	.562	3/8-24UNF	2.375	.375	.313	—	348	
	HSCUF50014	.750	1/2-20UNF	1.875	.500	.375	—	708	
	HSCUF50018	.750	1/2-20UNF	2.250	.500	.375	—	708	
	HSCUF50023	.750	1/2-20UNF	2.725	.500	.375	—	708	
	HSCUF50028	.750	1/2-20UNF	3.248	.500	.375	—	708	
	HSCUF62518	.938	5/8-18UNF	2.375	.625	.500	—	960	
	HSCUF62535	.938	5/8-18UNF	4.125	.625	.500	—	960	
	HSCUF62528	.938	5/8-18UNF	3.373	.625	.500	—	960	
	HSCUF75018	1.125	3/4-16UNF	2.500	.750	.625	—	1320	
HSCUF75040	1.125	3/4-16UNF	4.750	.750	.625	—	1320		
	HSCUC62523	.938	5/8-11UNS	2.875	.625	.500	—	960	
	HSCUC75025	1.125	3/4-10UNS	3.250	.750	.625	—	1320	
	HSC08025H	.512	M8x1.25	1.299	.315	.197	—	212	WSX445 (ⓄL018) APX3000 (ⓄL096) APX4000 (ⓄL110) AXD4000 (ⓄL156) AXD7000 (ⓄL166) AJX (ⓄL206) BXD4000 (ⓄL176) VFX5 (ⓄL186) VFX6 (ⓄL190)
	HSC08030H	.512	M8x1.25	1.496	.315	.197	—	212	
	HSC10030H	.630	M10x1.5	1.575	.394	.236	—	354	
	HSC12035H	.709	M12x1.75	1.850	.472	.394	—	708	
	HSC16040H	.945	M16x2	2.205	.630	.551	—	1328	
	HSC05030	.335	M5x0.8	1.181	.197	.157	—	48	APX4000 (ⓄL110) PMF (ⓄL291) PMR (ⓄL290) SPX (ⓄL180) VFX6 (ⓄL190) GY Series (ⓄF001)
	HSC08040	.512	M8x1.25	1.890	.315	.236	—	212	
	HSC08050	.512	M8x1.25	2.283	.315	.236	—	212	
	HSC10035	.630	M10x1.5	1.772	.394	.236	—	390	
	HSC10045	.630	M10x1.5	2.165	.394	.315	—	390	
	HSC10050	.630	M10x1.5	2.362	.394	.315	—	390	
	HSC10055	.630	M10x1.5	2.559	.394	.315	—	390	
	HSC12035	.709	M12x1.75	1.850	.472	.394	—	708	
	HSC12040	.709	M12x1.75	2.047	.472	.394	—	672	
	HSC12045	.709	M12x1.75	2.244	.472	.394	—	708	
	HSC12070	.709	M12x1.75	3.228	.472	.394	—	708	
	HSC16040	.945	M16x2.0	2.205	.630	.551	—	1328	
	HSC16065	.945	M16x2.0	3.189	.630	.551	—	1680	
	HSC16080	.945	M16x2.0	3.780	.630	.551	—	1328	
	HSC20040	1.181	M20x2.5	2.362	.787	.669	—	2832	
	HSC20090	1.181	M20x2.5	4.331	.787	.669	—	2832	
		HSCX12030H	.945	M12x1.75	1.457	.275	.315	—	
HSCX16035H		1.181	M16x1	1.732	.354	.472	—	885	
HSCX20035H		1.417	M20x2.5	1.818	.433	.551	—	1593	
	HSCXU50012H	.945	1/2-20UNF	1.496	.315	.375	—	708	FMAX (ⓄL070)
	HSCXU62514H	1.181	5/8-18UNF	1.732	.354	.500	—	960	
	HSCXU75017H	1.417	3/4-16UNF	2.126	.433	.625	—	1320	
	MBAU75016H	2.000	3/4-16UNF	2.188	.563	.625	—	2832	AJX (ⓄL206) AXD7000 (ⓄL166)
	MBAU100016H	2.593	1-14UNS	2.188	.563	.625	—	4608	
	MBA16033H	1.575	M16x2	1.693	.394	.551	—	1328	AJX (ⓄL206) APX4000 (ⓄL110) AXD4000 (ⓄL156) AXD7000 (ⓄL166) BXD4000 (ⓄL176)
	MBA20040H	1.969	M20x2.5	2.126	.551	.669	—	2832	
	MBA24045H	2.559	M24x3.0	2.323	.551	.669	—	4603	
	HGM-PT1/8	—	1/8-28	.276	—	.197	—	33	HSK-T Tool Holder (ⓄH001)

SPARE PARTS

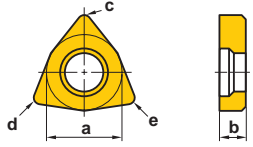
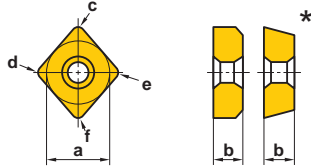
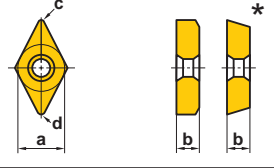
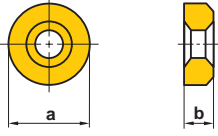
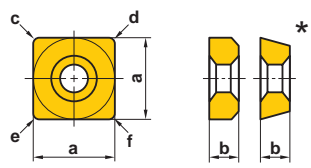
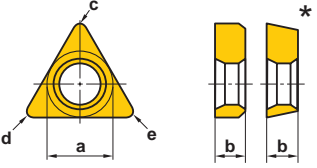
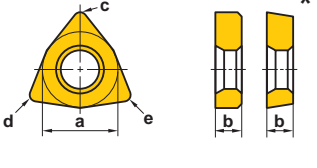
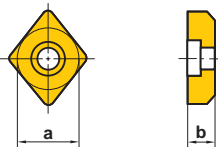


SPARE PARTS

SHIM

Geometry	Order Number	Dimensions (inch)						Tool Holder
		a	b	c	d	e	f	
	DCSVN32	.375	.125	.031	.047	—	—	DOUBLE CLAMP Holder (☉C024) DOUBLE CLAMP DIMPLE BAR (☉E023)
	ICSN322	.375	.125	.031	.031	.031	.031	M Type Tool Holder (☉C007) M Type Boring Bar (☉E024)
	ICSN432	.500	.188	.031	.031	.031	.031	
	ICSN433	.500	.188	.047	.047	.047	.047	
	ICSN533	.625	.188	.047	.047	.047	.047	
	ICSN633	.750	.188	.047	.047	.047	.047	
	IDSN322	.375	.125	.031	.031	—	—	M Type Tool Holder (☉C010) M Type Boring Bar (☉E024)
	IDSN433	.500	.188	.047	.047	—	—	
	IDSN533	.625	.188	.047	.047	—	—	
	IDSN543	.625	.250	.047	.047	—	—	
	IRSN32	.375	.125	—	—	—	—	M Type Tool Holder (☉C013)
	IRSN43	.500	.188	—	—	—	—	
	IRSN44	.500	.250	—	—	—	—	
	IRSN63	.750	.188	—	—	—	—	
	ISSN322	.375	.125	.031	.031	.031	.031	M Type Tool Holder (☉C014) M Type Boring Bar (☉E025)
	ISSN323	.375	.125	.047	.047	.047	.047	
	ISSN433	.500	.188	.047	.047	.047	.047	
	ISSN434	.500	.188	.063	.063	.063	.063	
	ISSN443	.500	.250	.047	.047	.047	.047	
	ISSN533	.625	.188	.047	.047	.047	.047	
	ISSN633	.750	.188	.047	.047	.047	.047	
	ISSN634	.750	.188	.063	.063	.063	.063	
	ISSN643	.750	.250	.047	.047	.047	.047	
	ISSN644	.750	.250	.063	.063	.063	.063	
ISSN846	1.000	.250	.094	.094	.094	.094		
	ITSN322	.375	.125	.031	.031	.031	—	M Type Tool Holder (☉C018) M Type Boring Bar (☉E025)
	ITSN323	.375	.125	.047	.047	.047	—	
	ITSN324	.375	.125	.063	.063	.063	—	
	ITSN332	.375	.188	.031	.031	.031	—	
	ITSN333	.375	.188	.047	.047	.047	—	
	ITSN334	.375	.188	.063	.063	.063	—	
	ITSN432	.500	.188	.031	.031	.031	—	
	ITSN434	.500	.188	.063	.063	.063	—	
	ITSN438	.500	.188	.125	.125	.125	—	
	ITSN533	.625	.188	.047	.047	.047	—	
	ITSN534	.625	.188	.063	.063	.063	—	
	ITSN633	.750	.188	.047	.047	.047	—	
	ITSN636	.750	.188	.094	.094	.094	—	
	IVSN322	.375	.125	.031	.031	—	—	M Type Tool Holder (☉C024) M Type Boring Bar (☉E026)
	IVSN432	.500	.188	.031	.031	—	—	
	IVSN433	.500	.188	.047	.047	—	—	

SHIM

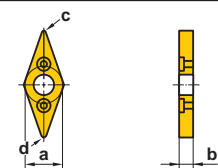
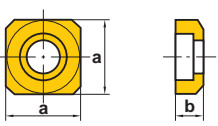
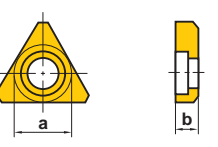
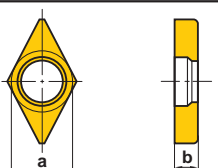
Geometry	Order Number	Dimensions (inch)						Tool Holder
		a	b	c	d	e	f	
	IWSN322	.375	.125	.031	.031	.031	—	M Type Tool Holder (☉C027) M Type Boring Bar (☉E026)
	IWSN432	.500	.188	.031	.031	.031	—	
	IWSN533	.625	.188	.047	.047	.047	—	
	LLSCN32	.375	.125	.016	.016	.031	.031	DOUBLE CLAMP Type Holder (☉C006) DOUBLE CLAMP DIMPLE BAR (☉E021) HSK-T Tool Holder (☉H001)
	LLSCN33	.375	.188	.016	.016	.031	.031	
	LLSCN42	.500	.125	.031	.031	.047	.047	
	* LLSCP32	.375	.125	.016	.016	.031	.031	
	* LLSCP42	.500	.125	.031	.031	.047	.047	
	LLSDN32	.375	.125	.031	.047	—	—	DOUBLE CLAMP Type Holder (☉C010) DOUBLE CLAMP DIMPLE BAR (☉E021) HSK-T Tool Holder (☉H001)
	LLSDN42	.500	.125	.031	.047	—	—	
	LLSDN43	.500	.188	.031	.047	—	—	
	* LLSDP42	.500	.125	.031	.047	—	—	
	LLSRN123	.386	.125	—	—	—	—	DOUBLE CLAMP Type Holder (☉C013) HSK-T Tool Holder (☉H001)
	LLSSN42	.500	.125	.031	.031	.047	.047	DOUBLE CLAMP Type Holder (☉C014) DOUBLE CLAMP DIMPLE BAR (☉E022)
	* LLSSP42	.500	.125	.031	.031	.047	.047	
	LLSTN32	.375	.125	.016	.031	.047	—	DOUBLE CLAMP Type Holder (☉C018) DOUBLE CLAMP DIMPLE BAR (☉E022)
	LLSTN33	.375	.188	.016	.031	.047	—	
	* LLSTP32	.375	.125	.016	.031	.047	—	
	LLSWN32	.375	.125	.016	.031	.047	—	DOUBLE CLAMP Type Holder (☉C027) DOUBLE CLAMP DIMPLE BAR (☉E023)
	LLSWN33	.375	.188	.016	.031	.047	—	
	LLSWN42	.500	.125	.016	.031	.047	—	
	* LLSWP42	.500	.125	.016	.031	.047	—	
	SPSCN42	.500	.125	—	—	—	—	SP Type Tool Holder (☉C030)

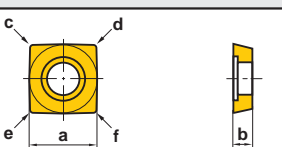
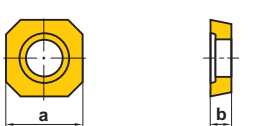
SPARE PARTS

Z

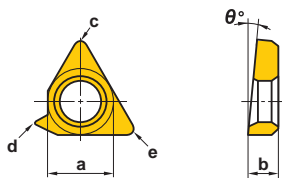
SPARE PARTS

SHIM

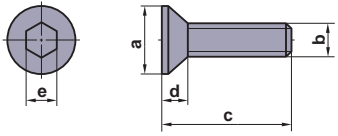
Geometry	Order Number	Dimensions (inch)						Tool Holder
		a	b	c	d	e	f	
	SPSVN32	.317	.125	.012	.012	—	—	SP Type Tool Holder (C036) HSK-T Tool Holder (H001)
	SPSSN42	.468	.125	—	—	—	—	SP Type Tool Holder (C034)
	SPSTN32	.352	.125	—	—	—	—	SP Type Tool Holder (C035)
	SPSDN32	.342	.125	—	—	—	—	SP Type Tool Holder (C031)

Geometry	Order Number	Dimensions (inch)						Tool Holder
		a	b	c	d	e	f	
	STASX400N	.433	.118	.015	.015	.015	.015	ASX400 (L082)
	STASX445N	.424	.118	—	—	—	—	ASX445 (L030)

SHIM

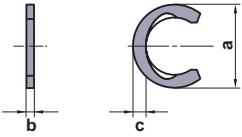
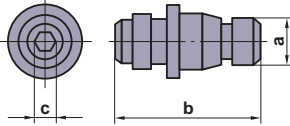
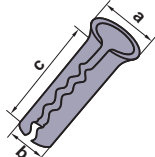
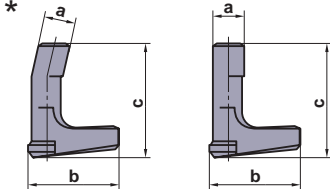
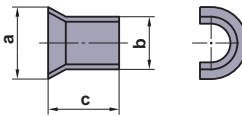
Geometry	Order Number	Dimensions (inch)						Tool Holder
		a	b	c	d	e	θ°	
	CTE32TN15	.375	.128	.031	.016	.031	2.955	MMTE (G021) MMTI (G026) HSK-T Tool Holder (H001)
	CTE32TN05	.375	.128	.031	.016	.031	1.970	
	CTE32TP05	.375	.126	.031	.016	.031	.985	
	CTE32TP15	.375	.125	.031	.016	.031	0	
	CTE32TP25	.375	.133	.031	.016	.031	-.985	
	CTE32TP35	.375	.141	.031	.016	.031	-1.970	
	CTE32TP45	.375	.149	.031	.016	.031	-2.995	
	CTI32TN15	.375	.128	.031	.016	.031	2.898	
	CTI32TN05	.375	.128	.031	.016	.031	1.932	
	CTI32TP05	.375	.126	.031	.016	.031	.966	
	CTI32TP15	.375	.125	.031	.016	.031	0	
	CTI32TP25	.375	.133	.031	.016	.031	-.966	
	CTI32TP35	.375	.141	.031	.016	.031	-1.932	
	CTI32TP45	.375	.146	.031	.016	.031	-2.898	
	CTE43TN15	.500	.192	.039	.024	.039	2.955	
	CTE43TN05	.500	.191	.039	.024	.039	1.970	
	CTE43TP05	.500	.189	.039	.024	.039	.985	
	CTE43TP15	.500	.187	.039	.024	.039	0	
	CTE43TP25	.500	.198	.039	.024	.039	-.985	
	CTE43TP35	.500	.209	.039	.024	.039	-1.970	
	CTE43TP45	.500	.219	.039	.024	.039	-2.995	
	CTI43TN15	.500	.192	.039	.024	.039	2.898	
	CTI43TN05	.500	.191	.039	.024	.039	1.932	
	CTI43TP05	.500	.189	.039	.024	.039	.966	
CTI43TP15	.500	.187	.039	.024	.039	0		
CTI43TP25	.500	.198	.039	.024	.039	-.966		
CTI43TP35	.500	.208	.039	.024	.039	-1.932		
CTI43TP45	.500	.219	.039	.024	.039	-2.898		

SHIM SCREW

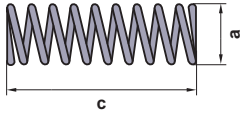
Geometry	Order Number	Dimensions (inch)					Torque (lb-ft)	Tool Holder
		a	b	c	d	e		
	HFC03006	.118	M3x0.5	.236	.067	.079	6	MMTE (G021) MMTI (G026) HSK-T Tool Holder (H001)
	HFC03008	.118	M3x0.5	.315	.067	.079	6	
	HFC04008	.157	M4x0.7	.315	.091	.098	10	
	HFC04010	.157	M4x0.7	.394	.091	.098	10	

SPARE PARTS

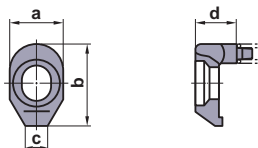
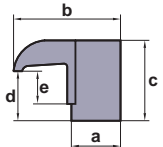
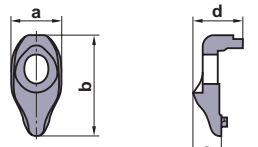
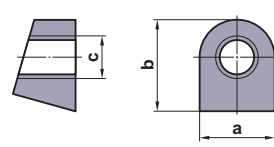
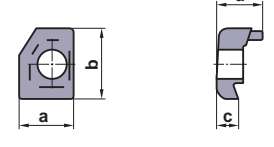
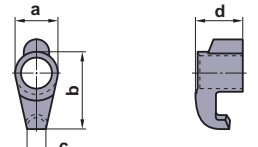
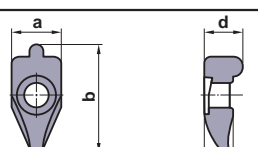
PIN / RING / CLAMP LEVER

Geometry	Order Number	Dimensions (inch)			Tool Holder
		a	b	c	
	CR4	.262	.016	.041	MMTE (☉G021) MMTI (☉G026) HSK-T Tool Holder (☉H001)
	CR5	.304	.026	.045	
	NL23	.313–1.260	.313	.063	M Type Tool Holder (☉C007) M Type Boring Bar (☉E024)
	NL33	.313–1.260	.347	.078	
	NL33L	.394–1.260	.406	.078	
	NL34	.394–1.260	.453	.078	
	NL34L	.394–1.260	.500	.078	
	NL43	.394–1.260	.422	.078	
	NL44	.250–1.102	.516	.094	
	NL46	.250–1.102	.688	.094	
	NL56	.313–.945	.703	.125	
	NL58	.313–.945	.844	.125	
	NL68	.375–.945	.875	.141	
	NL68L	.375–.945	.938	.141	
NL810	.438–.787	.813	.156		
	BCP141	.118	.055	.220	SP Type Holder (☉C036) HSK-T Tool Holder (☉H001)
	LLCL14	.185	.528	.520	HSK-T Tool Holder (☉H001)
	LLCL24	.185	.638	.583	
	* LLCL112	.138	.512	.531	
	LLP13	.219	.191	.209	DOUBLE CLAMP Type Holder (☉C006) DOUBLE CLAMP DIMPLE BAR (☉E021) HSK-T Tool Holder (☉H001)
	LLP14	.285	.258	.228	
	LLP23	.219	.191	.268	
	LLP24	.285	.258	.358	

SPRING

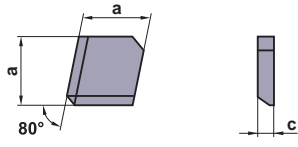
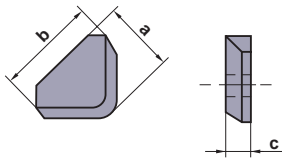
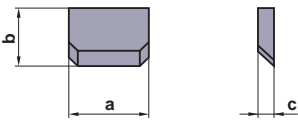
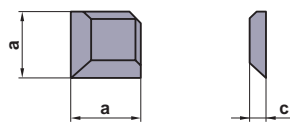
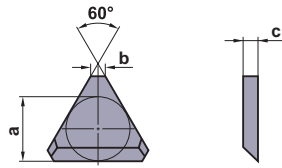
Geometry	Order Number	Dimensions (inch)		Tool Holder
		a	c	
	DCS1	.335	.433	DOUBLE CLAMP Type Holder (☉C006) DOUBLE CLAMP DIMPLE BAR (☉E021) HSK-T Tool Holder (☉H001)
	MES3	.307	.394	

CLAMP BRIDGE

Geometry	Order Number	Dimensions (inch)					Tool Holder
		a	b	c	d	e	
	AMS3	.276	.472	.118	.130	—	AJX (⊖L206) PMC (⊖L288)
	AMS4	.354	.531	.118	.150	—	
	AMS5	.394	.590	.136	.197	—	
	CL6	.310	.580	.440	.062	.094	M Type Tool Holder (⊖C007) M Type Boring Bar (⊖E024)
	CL7	.310	.640	.310	.062	—	
	CL9	.430	.750	.660	.344	.125	
	CL12	.430	.880	.660	.344	.125	
	CL19	.310	.550	.310	.187	—	
	CL20	.375	.730	.380	.125	—	
	CL24	.491	1.000	.785	.453	.136	
	CL30	.430	1.000	.660	.344	.125	
	DCK2211	.433	.866	.259	.357	—	DOUBLE CLAMP Holder (⊖C006) DOUBLE CLAMP DIMPLE BAR (⊖E021) HSK-T Tool Holder (⊖H001)
	DCK2613	.512	1.043	.289	.407	—	
	DCK3113	.512	1.220	.354	.472	—	
	KGC1	.402	.590	M7x0.75	—	—	
	MTK1R/L	.512	.689	.197	.472	—	HSK-T Tool Holder (⊖H001)
	SETK51	.268	.571	.114	.315	—	MMTE (⊖G021) MMTI (⊖G026) HSK-T Tool Holder (⊖H001)
	SETK61	.350	.713	.161	.339	—	
	SRK1R	.370	.827	.216	.295	—	

SPARE PARTS

CHIPBREAKER

Geometry	Order Number	Dimensions (inch)					Tool Holder
		a	b	c	Insert I.C.	Breaker Width	
	CBC4	.440	—	.062	.500	—	M Type Tool Holder M Type Boring Bar
	CBR4	.421	.560	.120	.500	—	M Type Tool Holder
	CBS3 CBS4	.370 .496	.315 .362	.059 .098	.375 .500	.059 .138	M Type Tool Holder M Type Boring Bar
	CBS3D CBS4D	.315 .402	— —	.059 .098	.375 .500	.059 .098	M Type Tool Holder
	CBT3	.283	.055	.098	.375	.138	M Type Tool Holder M Type Boring Bar

ANTI SEIZE LUBRICANT

Shape	Order Number	Stock	Volume (oz)
	<p>MK1KS</p>	<p>●</p>	<p>0.1</p>

