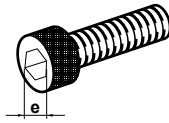


SPARE PARTS

IDENTIFICATION.....	M002
SPARE PARTS	
CLAMP SCREW.....	M003
SET BOLT	M008
SHIM	M009
SHIM SCREW.....	M012
PIN/RING/CLAMP LEVER	M013
SPRING	M013
CLAMP BRIDGE	M014
CHIPBREAKER.....	M015
ANTI SEIZE LUBRICANT	M016

IDENTIFICATION

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



H SC 060 05

Length

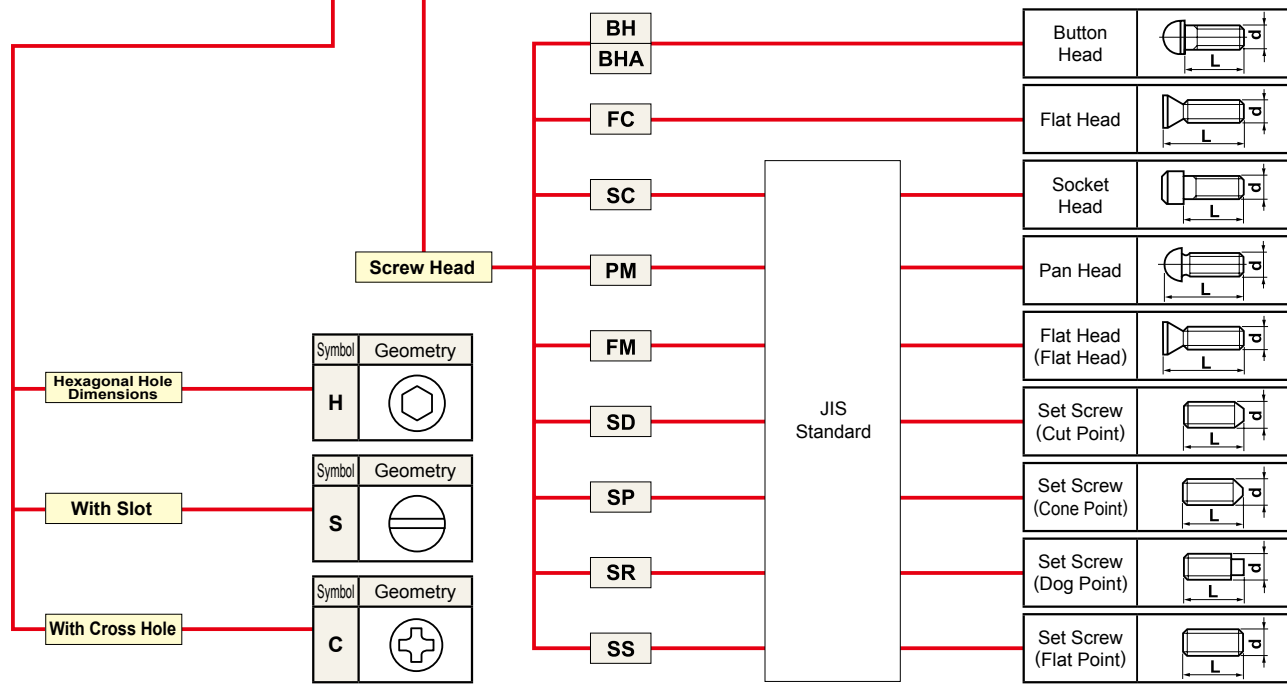
Example Symbol	L
05	.197
10	.394
20	.787

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



Hexagonal Hole Dimensions

Symbol	Geometry
H	

With Slot

Symbol	Geometry
S	

With Cross Hole

Symbol	Geometry
C	

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	

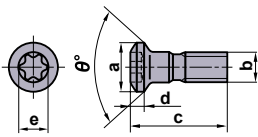
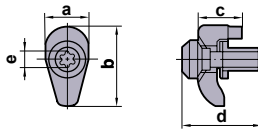
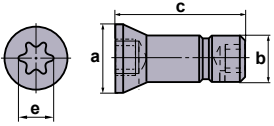
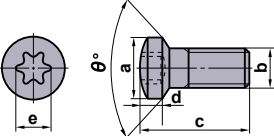
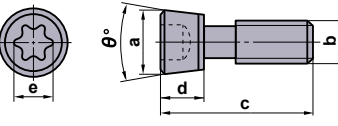
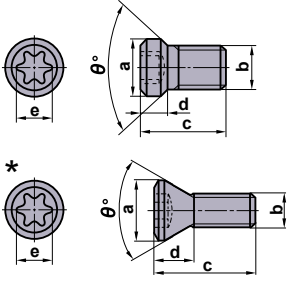
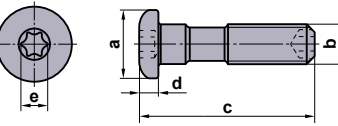
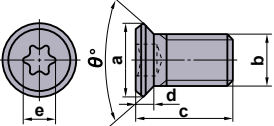
Torx plus® Wrench			
Symbol	e	Size	
06	.071	6IP	
07	.083	7IP	
08	.094	8IP	
10	.110	10IP	
15	.130	15IP	
25	.154	25IP	

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

Note: Dimension symbols conforming to ISO13399. See pages PR3-PR6 for details.

SPARE PARTS

CLAMP SCREW

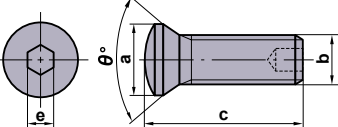
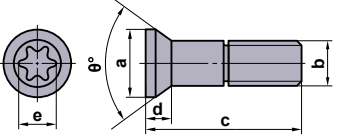
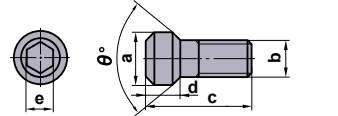
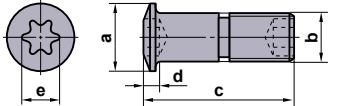
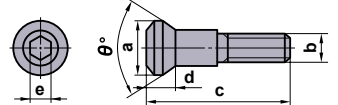
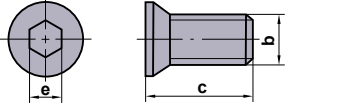
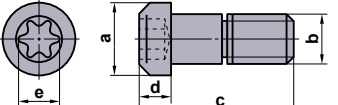
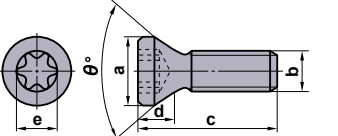
Geometry	Order Number	Dimensions (inch)						Torque (lbf-in)	Tool Holder
		a	b	c	d	e	θ°		
	AJS3010T10	.197	M3×0.5	.394	.059	T10	120	22	DOUBLE CLAMP Type Holder AJX Type Cutter PMC Type Cutter
	AJS4012T15	.276	M4×0.7	.472	.087	T15	120	31	
	AJS5014T25	.315	M5×0.8	.551	.106	T25	120	66	
	BC5	.354	.717	.335	.669	T20	—	44	F Type Boring Bar
	BLS02	.165	M3	.270	—	T08	—	18	MBN Type MBD Type
	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	
	BLS12	.474	M8	.969	—	T30	—	58	
	BRS105	.312	M5×0.8	.543	.118	T25	120	66	
	CAS51T	.312	M5×0.8	.748	.197	T25	10	75	BF407 Type Cutter
	*CS250560T	.154	M2.5×0.45	.205	.098	T8	60	8.9	AL Type Holder MMTI Type Holder MILLING TOOLS Series
	CS300790TS	.185	M3×0.5	.276	.089	T10	90	18	
	CS300890T	.161	M3×0.5	.315	.081	T8	90	8.9	
	*CS350760T	.217	M3.5×0.6	.276	.157	T15	60	31	
	CS350790T	.189	M3.5×0.6	.276	.093	T10	90	22	
	*CS350860T	.217	M3.5×0.6	.331	.157	T15	60	31	
	CS350990T	.189	M3.5×0.6	.354	.093	T10	90	22	
	CS400990T	.236	M4×0.7	.354	.110	T15	90	31	
	CS401160T	.224	M4×0.7	.433	.177	T15	60	31	
	CS451190T	.248	M4.5×0.75	.433	.114	T20	90	44	
	CS501290T	.276	M5×0.8	.433	.138	T25	90	66	
	*CS5015060T	.283	M5×0.8	.591	.093	T20	60	44	
		DC0520T	.335	M5×0.8	.886	.098	T15	—	
DC0621T		.413	M6×1.0	.984	.157	T20	—	44	
	FC400890T	.220	M4×0.7	.295	.051	T10	90	22	AL Type Holder AL Type Boring Bar

SPARE PARTS

CLAMP SCREW

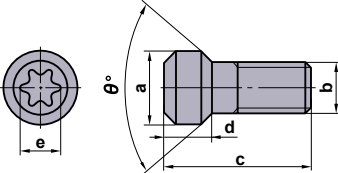
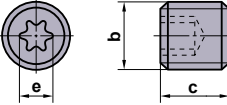
Geometry	Order Number	Dimensions (inch)						Torque (lbf-in)	Tool Holder
		a	b	c	d	e	θ°		
	GTS1	.220	6-40UNF	.500	—	T10	—	14	MTVO Type Tool Holder STHN Type Boring Bar
	GTS2	.310	10-32UNF	.750	—	T20	—	45	
	GTS3	.350	10-32UNF	.750	—	T20	—	45	
	GY05016S	.343	M5×0.8	.630	.138	T20	90	40	GY Holder
	GY06013M	.472	M6×1.0	.709	.197	T30	—	53	GY Holder
	JSS6	.272	M6×0.75	.177	.059	.031	—	—	SP Type Holder
	JSS7	.315	M7×0.75	.173	.059	.039	—	—	
	LLCS105	M5×0.8	M5×0.8	.394	.059	.787	—	1.0	HSK-T Tool Holder P Type Boring Bar
	LLCS106	.236	M6×1	.650	.138	.098	—	19	
	LLCS108	.315	M8×1.25	.827	.256	.118	—	29	
	* LS21	M10×1.5	1.260	.472	.472	.197	—	80	UG Holder MILLING TOOLS Series
	* LS24	M8×1.25	.945	.335	.335	.157	—	73	
	☆ LS10T	M7×0.75	.551	.236	.197	T25	—	75	
	☆ LS15T	M7×0.75	.709	.276	.276	T25	—	75	
	☆ LS19T	M6×0.75	.433	.157	.157	T15	—	44	
	☆ LS10TS	M7×0.75	.512	.236	.157	T25	—	75	
	LS0622T	M6×0.75	.866	.315	.315	T15	—	53	AHX640W Type Cutter
	NS251	.142	M2.5×0.45	.276	—	.087	60	6.2	SMALL TOOLS
	NS401	.228	M4×0.7	.236	—	.142	60	31	
	NS402W	.230	M4×0.7	.394	—	.087	60	6.2	SMALL TOOLS
	NS403W	.230	M4×0.7	.472	—	.087	60	6.2	
	NS404W	.228	M4×0.7	.394	—	.087	90	6.2	

CLAMP SCREW

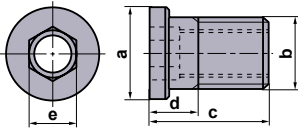
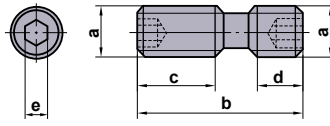
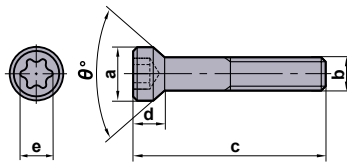
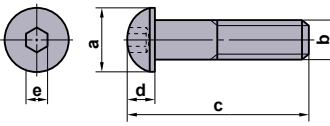
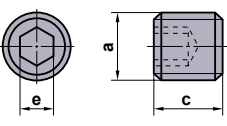
Geometry	Order Number	Dimensions (inch)						Torque (lbf-in)	Tool Holder
		a	b	c	d	e	θ°		
	NS501W	.315	M5×0.8	.630	—	.098	120	19	SMALL TOOLS
	NS502W	.315	M5×0.8	.787	—	.098	120	19	
	RS3008TS	.169	M3×0.35	.331	.079	T8	61	13	SRF Type Cutter
	RS3008T	.169	M3×0.35	.339	.079	T8	61	13	
	RS3510T	.197	M3.5×0.35	.394	.091	T10	61	22	
	RS4015T	.236	M4×0.5	.551	.106	T15	61	29	
	RS5020T	.319	M5×0.5	.646	.142	T20	61	44	
	RS6025T	.374	M6×0.75	.846	.165	T25	61	66	
	S2	.157	M2.5×0.45	.256	.091	.079	92	14	
	S3	.177	M3×0.5	.303	.094	.079	92	13	
	SETS51	.268	M5×0.8	.583	.059	T15	—	31	HSK-T Tool Holder MMTE Type Holder MMTI Type Holder
	SETS61	.315	M6×1	.787	.071	T20	—	44	
	SLCS105	.394	M5×0.8	.984	.248	.157	90	62	
	S34	—	10-32UNF	.313	—	.078	—	—	M Type Tool Holder M Type Boring Bar
	S46	—	1/4-28UNF	.500	—	.094	—	—	
	SRS5	.264	M5×0.8	.630	.138	T20	—	44	
	TPS20	.106	M2×0.4	.138	.051	6IP	60	5.3	MILLING TOOLS Series MXV Type Drill
	TPS22	.118	M2.2×0.45	.185	.063	7IP	60	5.3	
	TPS22S	.118	M2.2×0.45	.165	.063	7IP	60	5.3	
	TPS25	.130	M2.5×0.45	.217	.067	7IP	60	8.9	
	TPS25-1	.130	M2.5×0.45	.256	.067	7IP	60	8.9	
	TPS3	.154	M3×0.5	.264	.055	10IP	60	17.7	
	TPS35	.209	M3.5×0.6	.453	.110	15IP	60	31	
	TPS351	.189	M3.5×0.6	.281	.055	10IP	60	22	
	TPS4	.209	M4×0.7	.315	.102	15IP	60	31	
	TPS4R	.252	M4×0.7	.417	.087	15IP	R4	31	
	TPS4S	.209	M4×0.7	.276	.102	15IP	60	31	
	TPS43	.209	M4×0.7	.394	.102	15IP	60	31	
TPS54	.268	M5×0.8	.472	.126	25IP	60	66		

SPARE PARTS

CLAMP SCREW

Geometry	Order Number	Dimensions (inch)						Torque (lbf-in)	Tool Holder
		a	b	c	d	e	θ°		
	* TS16	.098	M1.6×0.35	.126	.063	T6	60	5.3	SP Type Tool Holder DOUBLE CLAMP Type Holder AL Type Tool Holder SR Type Tool Holder SMALL TOOLS DIMPLE BAR S Type Boring Bar MICRO-DEX GY Holder MMTI Type Holder F Type Boring Bar HSK-T Tool Holder MILLING TOOLS Series TAF Drill
	TS2	.106	M2×0.4	.181	.055	T6	60	5.3	
	* TS2A	.106	M2×0.4	.177	.047	T6	60	5.3	
	TS2C	.106	M2×0.4	.150	.055	T6	60	5.3	
	☆ TS2D	.150	M2×0.4	.209	.076	T6	82	5.3	
	TS21	.106	M2×0.4	.134	.055	T6	60	5.3	
	* TS22	.118	M2.2×0.45	.197	.047	T6	60	5.3	
	* TS25	.130	M2.5×0.45	.217	.067	T8	60	8.9	
	☆ TS25D	.172	M2.5×0.45	.244	.087	T8	82	8.9	
	* TS25H	.142	M2.5×0.45	.217	.079	T8	60	8.9	
	TS202	.106	M2×0.4	.217	.071	T6	60	5.3	
	TS253	.130	M2.5×0.45	.177	.067	T8	60	8.9	
	TS254	.130	M2.5×0.45	.276	.067	T8	60	8.9	
	* TS255	.138	M2.5×0.45	.295	.063	T8	60	8.9	
	TS3	.154	M3×0.5	.236	.079	T8	60	8.9	
	TS3D	.197	M3×0.5	.236	.091	T10	82	22	
	TS3SB	.173	M3×0.5	.315	.079	T8	80	13	
	TS31D	.189	M3×0.5	.283	.087	T10	82	22	
	* TS32	.154	M3×0.5	.295	.079	T8	60	8.9	
	* TS33	.154	M3×0.5	.264	.079	T8	60	8.9	
	TS35	.189	M3.5×0.6	.256	.094	T10	60	22	
	* TS35D	.209	M3.5×0.6	.472	.110	T15	60	31	
	TS351	.189	M3.5×0.6	.283	.094	T10	60	22	
	TS352	.189	M3.5×0.6	.394	.118	T10	60	22	
	TS4S	.213	M4×0.7	.276	.093	T15	80	31	
	* TS4SL	.213	M4×0.7	.315	.096	T15	80	35	
	TS4	.213	M4×0.7	.315	.102	T15	60	31	
	TS4D	.220	M4×0.7	.303	.098	T15	82	31	
	TS4SB	.228	M4×0.7	.354	.105	T15	80	31	
	* TS4SBL	.228	M4×0.7	.413	.105	T15	80	31	
	* TS4SBLL	.228	M4×0.7	.571	.105	T15	80	31	
	TS42	.213	M4×0.7	.236	.102	T15	60	31	
	TS43	.213	M4×0.7	.394	.102	T15	60	31	
TS44	.213	M4×0.7	.472	.102	T15	60	31		
TS406	.213	M4×0.7	.610	.102	T15	60	31		
TS407	.213	M4×0.7	.354	.102	T15	60	31		
TS450	.232	M4.5×0.75	.512	.142	T20	60	44		
TS5S	.268	M5×0.8	.354	.115	T25	80	66		
TS5	.268	M5×0.8	.354	.126	T25	60	66		
TS5L	.268	M5×0.8	.591	.115	T25	80	66		
TS52	.268	M5×0.8	.315	.126	T25	60	66		
TS53	.268	M5×0.8	.630	.126	T25	60	66		
TS54	.268	M5×0.8	.472	.126	T25	60	66		
TS55	.268	M5×0.8	.413	.126	T25	60	66		
* TS6S	.335	M6×1.0	.512	.173	T30	60	89		
* TS6	.335	M6×1.0	.630	.173	T30	60	89		
	TSS04005	—	M4×0.7	.197	—	T8	—	—	PMF Type Cutter

CLAMP SCREW

Geometry	Order Number	Dimensions (inch)						Torque (lbf-in)	Tool Holder
		a	b	c	d	e	θ°		
	WCS503507H	.248	M5×0.5	.276	.130	.138	—	44	ASX445 Type Cutter ASX400 Type Cutter PMR Type Cutter
	XNS35	10-32UNF	.625	.220	.220	.094	—	30	M Type Tool Holder M Type Boring Bar MTVO Type Holder
	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	M2.5×0.45	.453	.087	T8	80	18	TAW Drill
	WS254013T	.157	M2.5×0.45	.492	.087	T8	80	18	
	WS254014T	.157	M2.5×0.45	.531	.087	T8	80	18	
	WS254015T	.157	M2.5×0.45	.571	.087	T8	80	18	
	WS254016T	.157	M2.5×0.45	.610	.087	T8	80	18	
	WS304517T	.177	M3×0.5	.650	.134	T10	60	31	
	WS304518T	.177	M3×0.5	.689	.134	T10	60	31	
	WS355520T	.217	M3.5×0.6	.768	.154	T15	60	49	
	WS355521T	.217	M3.5×0.6	.807	.154	T15	60	49	
	WS406023T	.236	M4×0.7	.866	.173	T25	60	75	
	WS406024T	.236	M4×0.7	.906	.173	T25	60	75	
	WS508026T	.315	M5×0.8	.984	.205	T27	60	110	
	WS508027T	.315	M5×0.8	1.024	.205	T27	60	110	
		HBH04008	.295	M4×0.7	.417	.110	.098	—	
HBH06012		.413	M6×1	.630	.157	.157	—	4	
HBH06020		.413	M6×1	.945	.157	.157	—	4	
HBH08040		.551	M8×1.25	1.772	.197	.197	—	6.8	
	HSS05006	—	M5×0.8	.236	—	.098	—	4	HSK-T Tool Holder MVX Drill
	HSS05012	—	M5×0.8	.472	—	.098	—	4	
	HSS06008	—	M6×1	.315	—	.118	—	6.8	
	HSS08005	—	M8×1.25	.197	—	.157	—	16	
	HSS08006	—	M8×1.25	.236	—	.157	—	16	
	HSS08008	—	M8×1.25	.315	—	.157	—	16	
	HSS08010	—	M8×1.25	.394	—	.157	—	16	
	HSS08012	—	M8×1.25	.472	—	.157	—	16	
	HSS10012	—	M10×1.5	.472	—	.197	—	33	
	HSS10016	—	M10×1.5	.630	—	.197	—	33	
	HSS12016	—	M12×1.75	.630	—	.236	—	56	
	HSS12018	—	M12×1.75	.709	—	.236	—	56	
	HSS12025	—	M12×1.75	.984	—	.236	—	56	
	HSS12030	—	M12×1.75	1.181	—	.236	—	56	
	HSS14030	—	M14×2	1.181	—	.236	—	56	
	HSS14035	—	M14×2	1.378	—	.236	—	56	
	HSS16012	—	M16×2	.472	—	.315	—	140	
	HSS16020	—	M16×2	.787	—	.315	—	140	

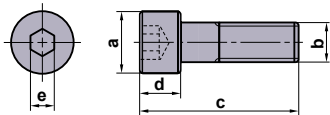
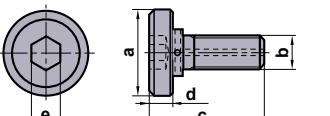
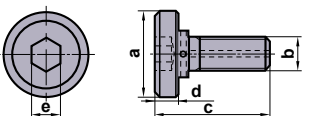
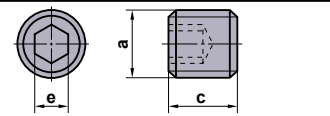
SPARE PARTS

SET BOLT

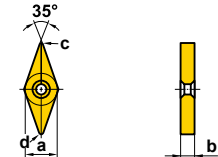
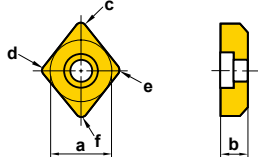
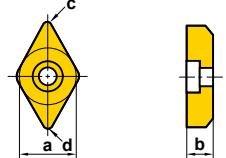
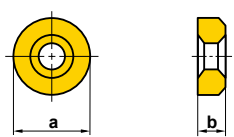
Geometry	Order Number	Dimensions (inch)						Torque (lbf-ft)	Tool Holder
		a	a'	b	c	d	e		
	HDS10031	M10x1.0	M10x1.5	1.220	.551	.472	.197	6.6	PMF Type Cutter
	HDSU37513	5/16-32UNEF	3/8-24UNF	1.260	.472	.433	.156	6.1	BOE Type Cutter BRP Type Cutter

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 Type Cutter	
	HFF08043H	.433	M8x1.25	1.693	.197	.197	90	6.1	AXD4000 Type Cutter BXD4000 Type Cutter	
	HSCU25011H	.370	1/4-28UNF	1.347	.250	.156	—	10	WSX445 Type Cutter	
	HSCU 25014H	.370	1/4-28UNF	1.647	.250	.156	—	10	AJX Type Cutter	
	HSCU37513H	.562	3/8-24UNF	1.625	.375	.250	—	29	APX3000 Type Cutter APX4000 Type Cutter	
	HSCU 50014H	.750	1/2-20UNF	1.875	.500	.375	—	59	AXD7000 Type Cutter	
	HSCU62516H	.938	5/8-18UNF	2.250	.625	.500	—	80	BAP3500 Type Cutter	
	HSCU75016H	1.125	3/4-16UNF	2.375	.750	.625	—	110	BXD4000 Type Cutter	
	HSCUF25013	.375	1/4-28UNF	1.500	.250	.188	—	10	APX4000 Type Cutter	
	HSCUF37513	.562	3/8-24UNF	1.625	.375	.313	—	29	SPX Type Cutter	
	HSCUF37520	.562	3/8-24UNF	2.375	.375	.313	—	29		
	HSCUF 50014	.750	1/2-20UNF	1.875	.500	.375	—	59		
	HSCUF 50028	.750	1/2-20UNF	3.248	.500	.375	—	59		
	HSCUF 62518	.938	5/8-18UNF	2.375	.625	.500	—	80		
	HSCUF 62528	.938	5/8-18UNF	3.373	.625	.500	—	80		
	HSCUF 75018	1.125	3/4-16UNF	2.500	.750	.625	—	110		
	HSCUC62523	.938	5/8-11UNS	2.875	.625	.500	—	80		
	HSCUC75025	1.125	3/4-10UNS	3.250	.750	.625	—	110		
	HSC08025H	.512	M8x1.25	1.299	.315	.197	—	18	WSX445 Type Cutter	
	HSC08030H	.512	M8x1.25	1.496	.315	.197	—	18	APX3000/4000 • AJX Type Cutter	
	HSC10030H	.630	M10x1.5	1.575	.394	.236	—	29	APX4000 Type Cutter	
	HSC12035H	.709	M12x1.75	1.850	.472	.394	—	59	AXD4000 Type Cutter AXD7000 Type Cutter	
	HSC16040H	.945	M16x2	2.205	.630	.551	—	110	APX3000/4000 • AJX Type Cutter BXD Type Cutter	
										VFX5/6 Type Cutter APX3000/4000 • AJX Type Cutter APX3000/4000 • AJX Type Cutter

SET BOLT

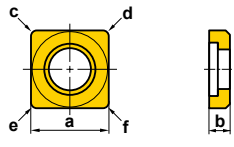
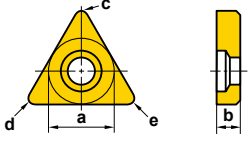
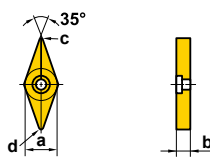
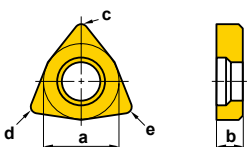
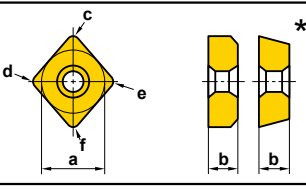
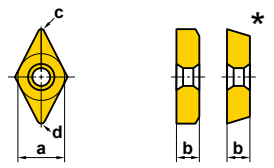
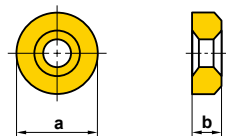
Geometry	Order Number	Dimensions (inch)						Torque (lbf-ft)	Tool Holder
		a	b	c	d	e	θ°		
	HSC05030	.335	M5×0.8	1.181	.197	.157	—	4.0	APX4000 Type Cutter
	HSC08040	.512	M8×1.25	1.890	.315	.236	—	16	PMF Type Cutter
	HSC08050	.512	M8×1.25	2.283	.315	.236	—	16	PMR Type Cutter
	HSC10035	.630	M10×1.5	1.772	.394	.236	—	33	SPX Type Cutter
	HSC10045	.630	M10×1.5	2.165	.394	.315	—	33	VFX6 Type Cutter
	HSC10050	.630	M10×1.5	2.362	.394	.315	—	33	GY Type Tool Holder
	HSC10055	.630	M10×1.5	2.559	.394	.315	—	33	
	HSC12035	.709	M12×1.75	1.850	.472	.394	—	56	
	HSC12040	.709	M12×1.75	2.047	.472	.394	—	56	
	HSC12045	.709	M12×1.75	2.244	.472	.394	—	56	
	HSC12070	.709	M12×1.75	3.228	.472	.394	—	56	
	HSC16040	.945	M16×2.0	2.205	.630	.551	—	140	
	HSC16065	.945	M16×2.0	3.189	.630	.551	—	140	
	HSC16080	.945	M16×2.0	3.780	.630	.551	—	140	
HSC20040	1.181	M20×2.5	2.362	.787	.669	—	273		
HSC20090	1.181	M20×2.5	4.331	.787	.669	—	273		
	MBAU75016H	2.000	3/4-16UNF	2.188	.563	.625	—	236	AJX Type Cutter
	MBAU100016H	2.593	1-14UNS	2.188	.563	.625	—	384	AXD7000 Type Cutter
	MBA16033H	1.575	M16×2	1.693	.394	.551	—	110	AJX Type Cutter
	MBA20040H	1.969	M20×2.5	2.126	.551	.669	—	236	APX4000 Type Cutter
	MBA24045H	2.559	M24×3.0	2.323	.551	.669	—	384	AXD4000 Type Cutter AXD7000 Type Cutter BXD4000 Type Cutter
	HGM-PT1/8	—	1/8-28	.276	—	.197	—	33	HSK-T Tool Holder

SHIM

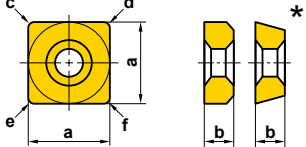
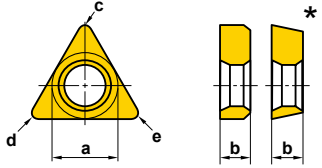
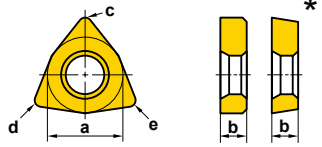
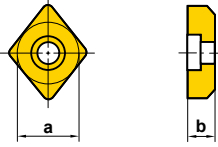
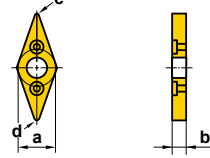
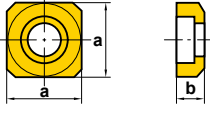
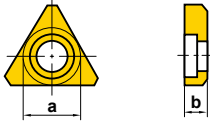
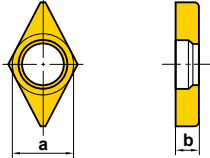
Geometry	Order Number	Dimensions (inch)						Tool Holder
		a	b	c	d	e	f	
	DCSVN32	.375	.125	.031	.047	—	—	DOUBLE CLAMP Type Holder DOUBLE CLAMP DIMPLE BAR
	ICSN322	.375	.125	.031	.031	.031	.031	M Type Tool Holder
	ICSN432	.500	.188	.031	.031	.031	.031	M Type Boring Bar
	ICSN433	.500	.188	.047	.047	.047	.047	
	ICSN533	.625	.188	.047	.047	.047	.047	
	ICSN633	.750	.188	.047	.047	.047	.047	
	IDSN322	.375	.125	.031	.031	—	—	M Type Tool Holder
	IDSN433	.500	.188	.047	.047	—	—	M Type Boring Bar
	IDSN533	.625	.188	.047	.047	—	—	
	IDSN543	.625	.250	.047	.047	—	—	
	IRSN32	.375	.125	—	—	—	—	M Type Tool Holder
	IRSN43	.500	.188	—	—	—	—	
	IRSN44	.500	.250	—	—	—	—	
	IRSN63	.750	.188	—	—	—	—	

SPARE PARTS

SHIM

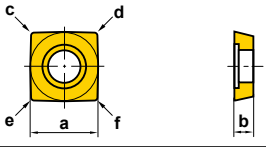
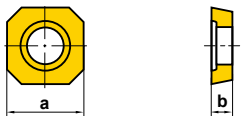
Geometry	Order Number	Dimensions (inch)						Tool Holder
		a	b	c	d	e	f	
	ISSN322	.375	.125	.031	.031	.031	.031	M Type Tool Holder M Type Boring Bar
	ISSN 323	.375	.125	.047	.047	.047	.047	
	ISSN433	.500	.188	.047	.047	.047	.047	
	ISSN434	.500	.188	.063	.063	.063	.063	
	ISSN443	.500	.250	.047	.047	.047	.047	
	ISSN533	.625	.188	.047	.047	.047	.047	
	ISSN633	.750	.188	.047	.047	.047	.047	
	ISSN 634	.750	.188	.063	.063	.063	.063	
	ISSN643	.750	.250	.047	.047	.047	.047	
	ISSN 644	.750	.250	.063	.063	.063	.063	
	ISSN846	1.000	.250	.094	.094	.094	.094	
	ITSN322	.375	.125	.031	.031	.031	—	M Type Tool Holder M Type Boring Bar
	ITSN 323	.375	.125	.047	.047	.047	—	
	ITSN 324	.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	—	
	ITSN 534	.625	.188	.063	.063	.063	—	
ITSN633	.750	.188	.047	.047	.047	—		
ITSN 636	.750	.188	.094	.094	.094	—		
	IVSN322	.375	.125	.031	.031	—	—	M Type Tool Holder M Type Boring Bar
	IVSN432	.500	.188	.031	.031	—	—	
	IVSN433	.500	.188	.047	.047	—	—	
	IWSN322	.375	.125	.031	.031	.031	—	M Type Tool Holder M Type Boring Bar
	IWSN432	.500	.188	.031	.031	.031	—	
	IWSN533	.625	.188	.047	.047	.047	—	
	LLSCN32	.375	.125	.016	.016	.031	.031	DOUBLE CLAMP Type Holder DOUBLE CLAMP DIMPLE BAR HSK-T Tool Holder
	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 DOUBLE CLAMP DIMPLE BAR HSK-T Tool Holder
	LLSDN42	.500	.125	.031	.047	—	—	
	LLSDN43	.500	.188	.031	.047	—	—	
	* LLSDP42	.500	.125	.031	.047	—	—	
	LLSRN123	.386	.125	—	—	—	—	DOUBLE CLAMP Type Holder HSK-T Tool Holder

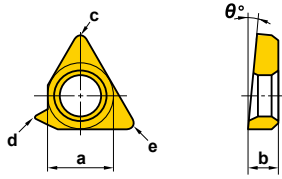
SHIM

Geometry	Order Number	Dimensions (inch)						Tool Holder
		a	b	c	d	e	f	
	LLSSN42	.500	.125	.031	.031	.047	.047	DOUBLE CLAMP Type Holder DOUBLE CLAMP DIMPLE BAR
	* LLSSP42	.500	.125	.031	.031	.047	.047	
	LLSTN32	.375	.125	.016	.031	.047	—	DOUBLE CLAMP Type Holder DOUBLE CLAMP DIMPLE BAR
	LLSTN33	.375	.188	.016	.031	.047	—	
	* LLSTP32	.375	.125	.016	.031	.047	—	
	LLSWN32	.375	.125	.016	.031	.047	—	DOUBLE CLAMP Type Holder DOUBLE CLAMP DIMPLE BAR
	LLSWN 33	.375	.188	.016	.031	.047	—	
	LLSWN42	.500	.125	.016	.031	.047	—	
	* LLSWP42	.500	.125	.016	.031	.047	—	
	SPSCN42	.500	.125	—	—	—	—	SP Type Tool Holder
	SPSVN32	.317	.125	.012	.012	—	—	SP Type Tool Holder HSK-T Tool Holder
	SPSSN42	.468	.125	—	—	—	—	SP Type Tool Holder
	SPSTN32	.352	.125	—	—	—	—	SP Type Tool Holder
	SPSDN32	.342	.125	—	—	—	—	SP Type Tool Holder

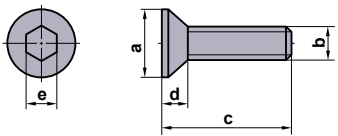
SPARE PARTS

SHIM

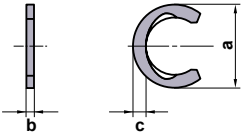
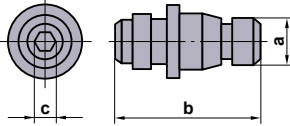
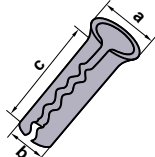
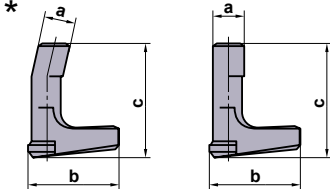
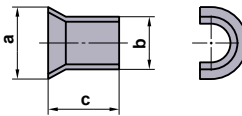
Geometry	Order Number	Dimensions (inch)						Tool Holder
		a	b	c	d	e	f	
	STASX400N	.433	.118	.015	.015	.015	.015	ASX400 Type Cutter
	STASX445N	.424	.118	—	—	—	—	ASX445 Type Cutter

Geometry	Order Number	Dimensions (inch)							Tool Holder
		a	b	c	d	e	θ°		
	CTE32TN15	.375	.128	.031	.016	.031	2.955	MMT Type Tool Holder HSK-T Tool Holder	
	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			

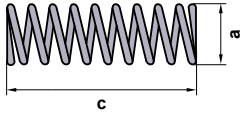
SHIM SCREW

Geometry	Order Number	Dimensions (inch)					Torque (lbf-ft)	Tool Holder
		a	b	c	d	e		
	HFC03006	.118	M3×0.5	.236	.067	.079	6	MMT Type Tool Holder HSK-T Tool Holder
	HFC03008	.118	M3×0.5	.315	.067	.079	6	
	HFC04008	.157	M4×0.7	.315	.091	.098	10	
	HFC04010	.157	M4×0.7	.394	.091	.098	10	

PIN / RING / CLAMP LEVER

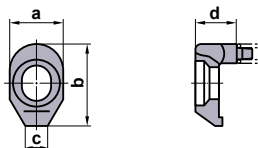
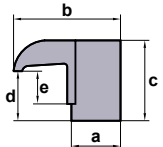
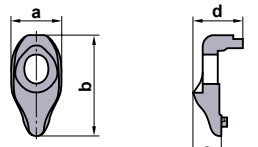
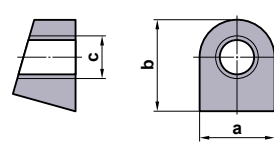
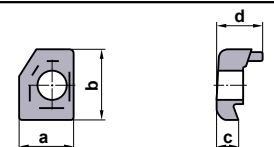
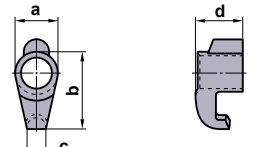
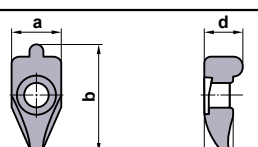
Geometry	Order Number	Dimensions (inch)			Tool Holder
		a	b	c	
	CR4	.262	.016	.041	MMTE Type Holder HSK-T Tool Holder
	CR5	.304	.026	.045	
	NL23	.313–1.260	.313	.063	M Type Tool Holder M Type Boring Bar
	NL33	.313–1.260	.347	.078	
	NL33L	.394–1.260	.406	.078	
	NL34	.394–1.260	.453	.078	
	NL34L	.394–1.260	.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 HSK-T Tool Holder
	LLCL14	.185	.528	.520	HSK-T Tool Holder
	LLCL24	.185	.638	.583	
	* LLCL112	.138	.512	.531	
	LLP13	.219	.191	.209	DOUBLE CLAMP Type Holder DOUBLE CLAMP DIMPLE BAR HSK-T Tool Holder
	LLP14	.285	.258	.228	
	LLP23	.219	.191	.268	
	LLP24	.285	.258	.358	

SPRING

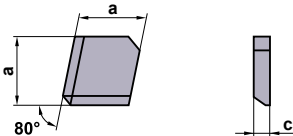
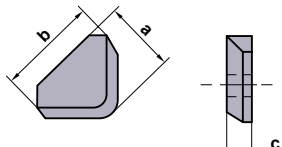
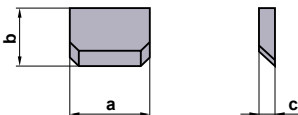
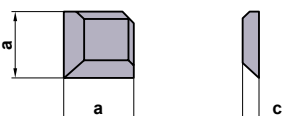
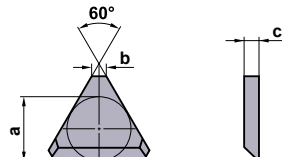
Geometry	Order Number	Dimensions (inch)		Tool Holder
		a	c	
	DCS1	.335	.433	DOUBLE CLAMP Type Holder DOUBLE CLAMP DIMPLE BAR MG Type Tool Holder HSK-T Tool Holder
	MES3	.307	.394	

SPARE PARTS

CLAMP BRIDGE


Geometry	Order Number	Dimensions (inch)					Tool Holder
		a	b	c	d	e	
	AMS3	.276	.472	.118	.130	—	DOUBLE CLAMP Type Holder AJX Type Cutter PMC Type Cutter
	AMS4	.354	.531	.118	.150	—	
	AMS5	.394	.590	.136	.197	—	
	CL6	.310	.580	.440	.062	.094	M Type Tool Holder M Type Boring Bar MTVO Type Tool Holder
	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 DOUBLE CLAMP DIMPLE BAR HSK-T Tool Holder
	DCK2613	.512	1.043	.289	.407	—	
	DCK3113	.512	1.220	.354	.472	—	
	KGC1	.402	.590	M7×0.75	—	—	UG Holder
	MTK1R/L	.512	.689	.197	.472	—	HSK-T Tool Holder
	SETK51	.268	.571	.114	.315	—	MMTE Type Holder MMTI Type Holder HSK-T Tool Holder
	SETK61	.350	.713	.161	.339	—	
	SRK1R	.370	.827	.216	.295	—	

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

SPARE PARTS

ANTI SEIZE LUBRICANT

Shape	Order Number	Stock	Volume (oz)
	MK1KS	●	0.1