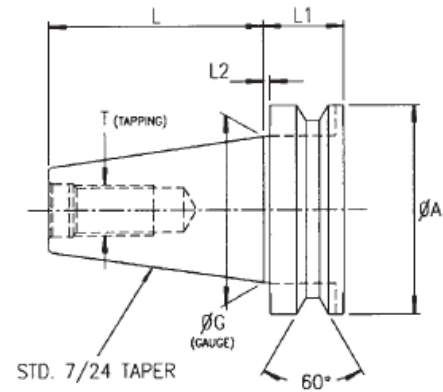


TOOL HOLDER DIMENSIONS AND SPECIFICATIONS

Standard Table dimensions

BT MAS 403

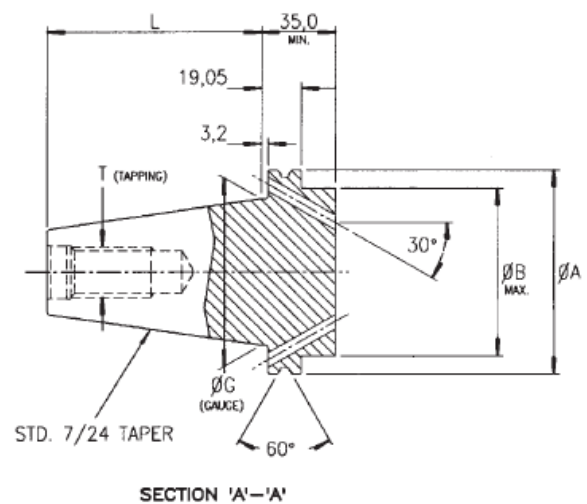
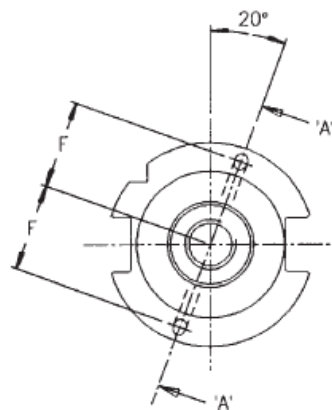
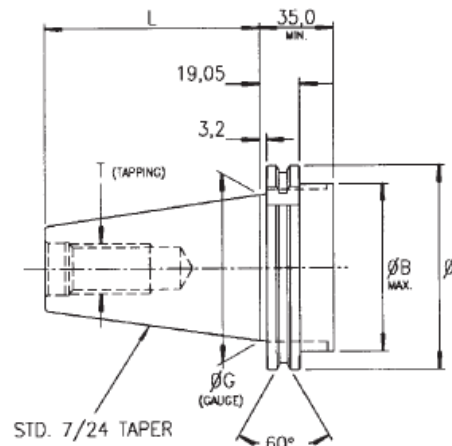
MAS 403 Japanese Standard						
Taper	A	G	L	L1	L2	T
BT30	46.0	31.75	48.4	22.0	2.0	M12
BT35	53.0	38.10	56.5	22.0	2.0	M12
BT40	63.0	44.45	65.4	27.0	2.0	M16
BT50	100.0	69.85	101.8	38.0	3.0	M24



DV DIN 69871 A & B

DIN 69871 Form 'A'					
Taper	A	B	G	L	T
DV30	49.95	45.0	31.75	47.65	M12
DV40	63.50	50.0	44.45	68.25	M16
DV45	82.50	63.0	57.15	82.55	M20
DV50	97.45	80.0	69.85	101.60	M24

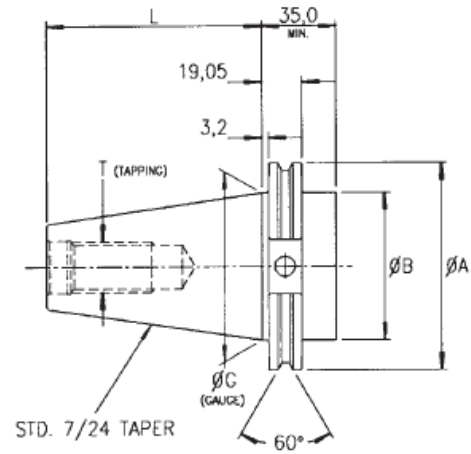
DIN 69871 Form 'B'						
Taper	A	B	G	L	F	T
DV40	63.50	50.0	44.45	68.25	27.0	M16
DV50	97.45	80.0	69.85	101.60	42.0	M24



TOOL HOLDER DIMENSIONS AND SPECIFICATIONS

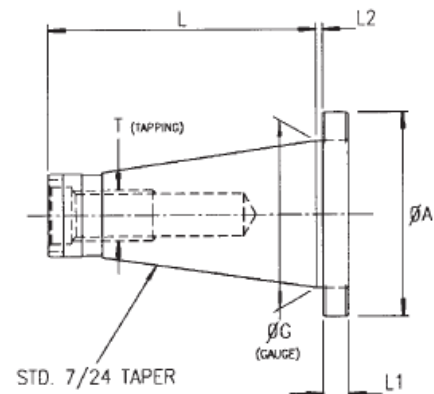
CAT/ANSI B5.50

CAT/ANSI B5.50					
Taper	A	B	G	L	T
CV40	63.50	44.45	44.45	68.25	M16
CV50	96.38	69.85	69.85	101.60	M24

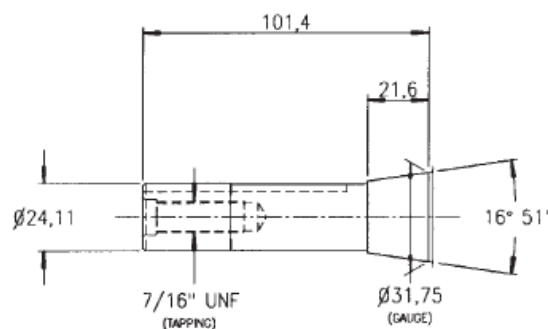


ISO TAPERS

ISO Tapers						
QC30 & QC40 shanks have flanges to suit B.E. Quick Change spindles						
Taper	A	G	L	L1	L2	T
QC30	46.0	31.75	68.33	8.74	1.96	M12
QC40	63.5	44.45	93.73	7.95	1.93	M16
IT401	64.0	44.45	93.73	8.15	1.83	5/8" UNC
DT50	97.2	69.85	126.8	12.0	3.2	M24



R8 TAPER

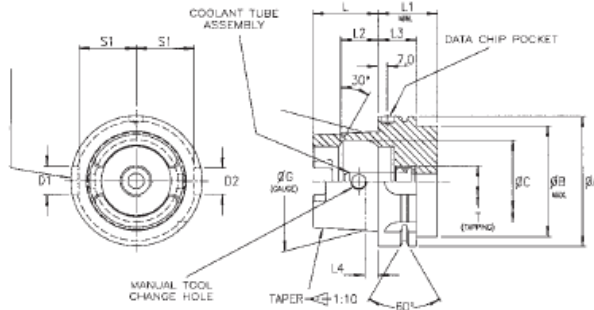


TOOL HOLDER DIMENSIONS AND SPECIFICATIONS

HSK DIN 69893 A

DIN 69893-1:1996-01- Form 'A' general purpose

TIMING OMPLE



Standard type for use on milling machines and milling centres with automatic tool change. Also suitable for manual tool change.

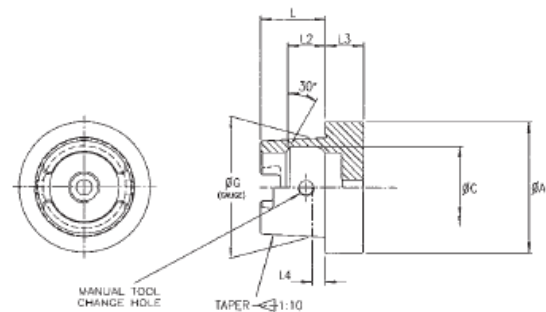
Toolholder supplied less coolant tube assembly which must be ordered separately.

HSK DIN 69893 Form 'A'													
Taper	A	B	C	G	D1	D2	L	L1	L2	L3	L4	S1	T
HSK32A	32.0	26.0	21.0	24.0	9.0	7.0	16.0	35.0	8.92	20.0	3.2	13.0	M10x1.0
HSK40A	40.0	34.0	25.5	30.0	11.0	9.0	20.0	35.0	11.42	20.0	4.0	17.0	M12x1.0
HSK50A	50.0	42.0	32.0	38.0	14.0	12.0	25.0	42.0	14.13	26.0	5.0	21.0	M16x1.0
HSK63A	63.0	53.0	40.0	48.0	18.0	16.0	32.0	42.0	18.13	26.0	6.3	26.5	M18x1.0
HSK80A	80.0	67.0	50.0	60.0	20.0	18.0	40.0	42.0	22.85	26.0	8.0	34.0	M20x1.0
HSK100A	100.0	85.0	63.0	75.0	22.0	20.0	50.0	45.0	28.56	29.0	10.0	44.0	M24x1.0
HSK125A	125.0	105.0	80.0	95.0	28.0	25.0	63.0	45.0	36.27	29.0	12.5	55.5	M30x1.0
HSK160A	160.0	130.0	100.0	120.0	36.0	32.0	80.0	47.0	45.98	31.0	16.0	72.0	M35x1.0

HSK DIN 69893 C

DIN 69893-1:1996-01- Form 'C' manual shank

HSK DIN 69893 Form 'C'							
Taper	A	C	G	L	L2	L3	L4
HSK32C	32.0	21.0	24.0	16.0	8.92	10.0	3.2
HSK40C	40.0	25.5	30.0	20.0	11.42	10.0	4.0
HSK50C	50.0	32.0	38.0	25.0	14.13	12.5	5.0
HSK63C	63.0	40.0	48.0	32.0	18.13	12.5	6.3
HSK80C	80.0	50.0	60.0	40.0	22.85	16.0	8.0
HSK100C	100.0	63.0	75.0	50.0	28.56	16.0	10.0



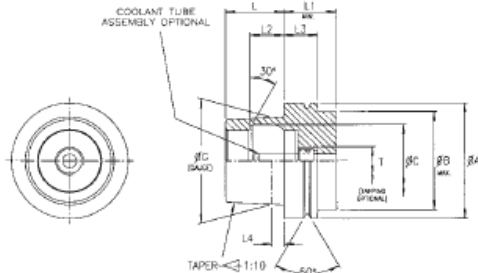
Manual tool change type only
For use as a modular system
For special purpose machines
For transfer lines and lathes.

Coolant supply through the centre.

TOOL HOLDER DIMENSIONS AND SPECIFICATIONS

HSK DIN 69893 E

DIN 69893-1:1996-01- Form 'E' high speed applications



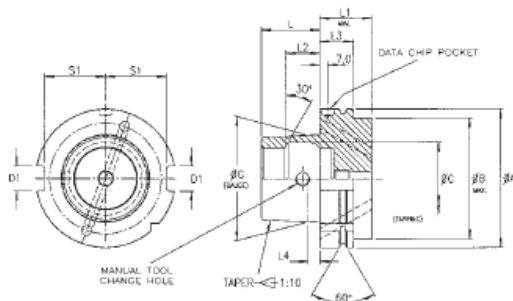
High speed applications for automatic tool change.
Option coolant fitting as form 'A'
Note: No rear drive slots, no slots or notches in the flange.

Toolholder supplied less coolant tube assembly which must be ordered separately.

HSK DIN 69893 Form 'E'										
Taper	A	B	C	G	L	L1	L2	L3	L4	T
HSK25E	25.0	20.0	16.4	19.0	13.0	20.0	7.21	10.0	2.5	-
HSK32E	32.0	26.0	21.0	24.0	16.0	35.0	8.92	20.0	3.2	M10x1.0
HSK40E	40.0	34.0	25.5	30.0	20.0	35.0	11.42	20.0	4.0	M12x1.0
HSK50E	50.0	42.0	32.0	38.0	25.0	42.0	14.13	26.0	5.0	M16x1.0
HSK63E	63.0	53.0	40.0	48.0	32.0	42.0	18.13	26.0	6.3	M18x1.0

HSK DIN 69893 B

DIN 69893-1:1996-01- Form 'B' coolant through the flange with automatic tool change



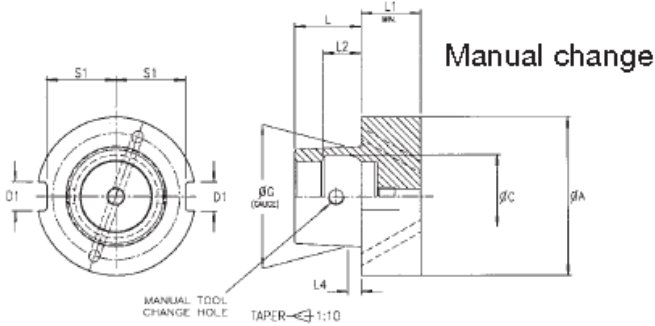
Coolant supply through the flange
Enlarged flange diameter for rigidity
Drive slots are in the flange
For use on milling machines and lathes
Machining centres with automatic tool change

HSK DIN 69893 Form 'B'											
Taper	A	B	C	G	D1	L	L1	L2	L3	L4	S1
HSK40B	40.0	34.0	21.0	24.0	10.0	16.0	35.0	8.92	20.0	3.2	16.0
HSK50B	50.0	42.0	25.5	30.0	12.0	20.0	42.0	11.42	26.0	4.0	20.0
HSK63B	63.0	53.0	32.0	38.0	16.0	25.0	42.0	14.13	26.0	5.0	25.0
HSK80B	80.0	67.0	40.0	48.0	18.0	32.0	42.0	18.13	26.0	6.3	31.5
HSK100B	100.0	85.0	50.0	60.0	20.0	40.0	45.0	22.85	29.0	8.0	40.0
HSK125B	125.0	105.0	63.0	75.0	25.0	50.0	45.0	28.56	29.0	10.0	50.0
HSK160B	160.0	130.0	80.0	95.0	32.0	63.0	47.0	36.27	31.0	12.5	62.5

TOOL HOLDER DIMENSIONS AND SPECIFICATIONS

HSK DIN 69893 D

DIN 69893-1:1996-01- Form 'D' coolant through the flange

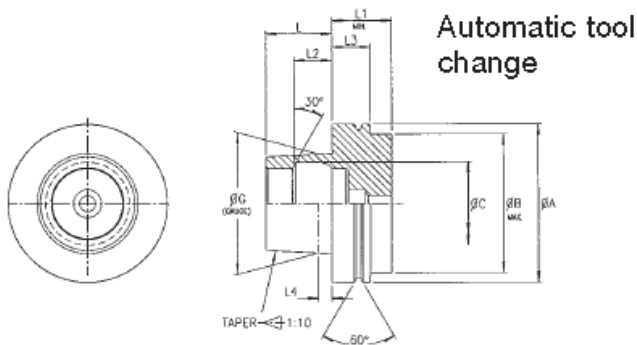


Coolant supply through the flange
 Enlarged flange diameter for rigidity
 Drive slots are in the flange
 For use on milling machines, lathes
 drilling and grinding machines, with
 manual tool change

HSK DIN 69893 Form 'D'									
Taper	A	C	G	D1	L	L1	L2	L4	S1
HSK40D	40.0	21.0	24.0	10.0	16.0	20.0	8.92	3.2	16.0
HSK50D	50.0	25.5	30.0	12.0	20.0	26.0	11.42	4.0	20.0
HSK63D	63.0	32.0	38.0	16.0	25.0	26.0	14.13	5.0	25.0
HSK80D	80.0	40.0	48.0	18.0	32.0	26.0	18.13	6.3	31.5
HSK100D	100.0	50.0	60.0	20.0	40.0	29.0	22.85	8.0	40.0

HSK DIN 69893 F

DIN 69893-1:1996-01- Form 'F' high speed applications



High speed applications
 Enlarged flange diameter for rigidity
 No drive slots
 Symmetrical design
 For use on machines with automatic
 tool change

HSK DIN 69893 Form 'F'									
Taper	A	B	C	G	L	L1	L2	L3	L4
HSK50F	50.0	42.0	25.5	30.0	20.0	42.0	11.42	26.0	4.0
HSK63F	63.0	53.0	32.0	38.0	25.0	42.0	14.13	26.0	5.0