

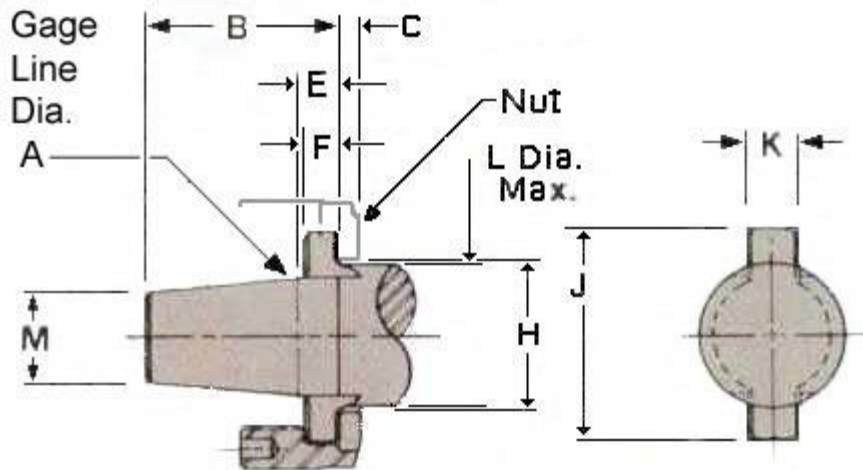
Machine Tool Shanks & Tapers

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Kwik-Switch Taper (Universal Engineering)

Kwik-Switch was developed by Universal Engineering who manufactured it for many years. Collis makes fully compatible tooling they call Rapid-Switch. SPI and Smith Tool also make compatible tooling.



Size	A	B	C	E	F	H	J	K	L	M
100	0.875	1.44	0.16	0.312	0.250	1.12	1.56	0.375	1.06	0.68
200	1.312	2.50	0.22	0.375	0.312	1.75	2.12	0.500	1.68	0.97
300	1.625	2.94	0.28	0.438	0.375	2.00	2.50	0.500	1.94	1.22

400	2.250	3.62	0.34	0.500	0.438	2.81	3.25	0.625	2.75	1.7
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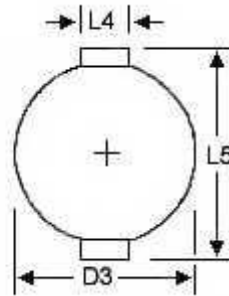
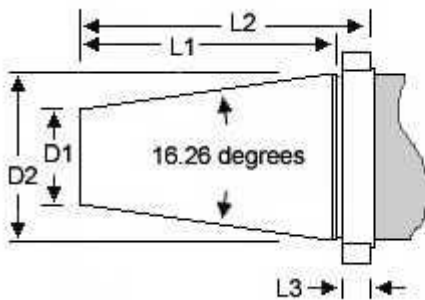
Kwik-Switch Tooling for sale:

<p>Tools-n-Gizmos.com</p> <ul style="list-style-type: none"> • Kwik-Switch 100 	<ul style="list-style-type: none"> • Kwik-Switch 200 (All) <ul style="list-style-type: none"> - Boring Heads & Adapters - Collet Chucks - End Mill Holders - Masters & Accessories - All the rest 	<ul style="list-style-type: none"> • Kwik-Switch 300 (All) <ul style="list-style-type: none"> - Collet Chucks - End Mill Holders - Masters & Accessories - All the rest 	<p style="text-align: right;">Tools-n-Gizmos.com</p> <ul style="list-style-type: none"> • Kwik-Switch 400 (All) <ul style="list-style-type: none"> - Collet Chucks - End Mill Holders - Masters & Accessories - All the rest
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SPI Quick Change shank

- This Tool Shank looks very similar to Universal Kwik-Switch. However it is totally incompatible with Kwik-Switch.
- I don't know who developed it or if there is an industry standard.
- See [SPI Catalog pages](#) for tooling with this shank.
- Nikken and Yuasa also make (made ?) compatible tooling.
- Independent of who made the unit, on this site I refer to all shanks and masters compatible with the "SPI Quick Change 75-3xx shank" as "SPI Quick Change 3" or "SPIQC-3". Likewise with sizes 4 and 5 (SPIQC-4 and SPIQC-5).



Measured values from actual units (mostly provided by Brian and Tom of Scorpion Technologies Ltd.)

Size	SPI #	Nikken #	Yuasa #	D1	D2	D3 max*	L1	L2	L3	L4	L5
3	75-3xx	xx30-xx	?	0.70	1.24	1.34	1.88	2.17	0.19	0.35	1.5
4	75-4xx	xx40-xx	?	0.85	1.50	1.65	2.24	2.54	0.22	0.45	1.9
5	75-5xx	xx50-xx	?	1.28	2.25	2.6	3.38	3.81	0.37	0.615	2.8

* I don't know what the actual D3 max value is. The values given are the max of several measured values and should be close to the actual max value.

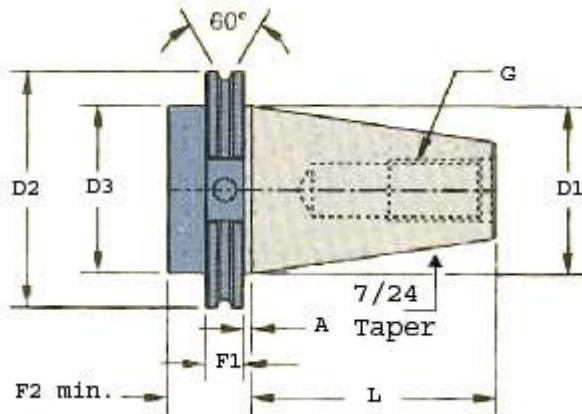
SPI Quick Change Tooling for sale

[Tools-n-Gizmos.com](#) [Tools-n-Gizmos.com](#)

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CAT, CV or V-flange Taper

aka: ANSI B5.50, Caterpillar "V-Flange" standard, ISO 7388-1, IS 11173 (TC), DIN 69871, NFE 62540.
 Units built to the international standards (DIN, ISO & NFE) are commonly considered interchangeable with ANSI (Caterpillar) shanks. However, there are a few differences.



ANSI B5.50 (from Kennametal catalog 7060)								
Size	D1	D2	D3	L	F1	F2 min	A	G
30	1.250 (31.75)	1.812 (46.02)	1.250 (31.75)	1.875 (47.63)	0.750 (19.05)	1.375 (35.00)	0.125 (3.18)	1/2-13 thread
40	1.750 (44.45)	2.500 (63.05)	1.750 (44.45)	2.687 (68.25)	0.750 (19.05)	1.375 (35.00)	0.125 (3.18)	5/8-11 thread
45	2.250 (57.15)	3.250 (82.50)	2.250 (57.15)	3.250 (82.55)	0.750 (19.05)	1.375 (35.00)	0.125 (3.18)	3/4-10 thread
50	2.750 (69.85)	3.875 (98.41)	2.750 (69.85)	4.000 (101.60)	0.750 (19.05)	1.375 (35.00)	0.125 (3.18)	1-8 thread
60	4.250 (107.95)	5.500 (139.70)	4.250 (107.95)	6.375 (161.93)	0.750 (19.05)	1.500 (38.10)	0.125 (3.18)	1 1/4-7 thread

ISO 7388-1, DIN 69871, NFE 62540								
Size	D1	D2	D3 max	L	F1	F2 min	A	G
30	31.75	50	45	47.8	15.9	35	3.2	M12
40	44.45	63.55	50	68.4	15.9	35	3.2	M16
45	57.15	82.55	63	82.7	15.9	35	3.2	M20
50	69.85	97.5	80	101.75	15.9	35	3.2	M24

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CAT Tooling for sale:

Tools-n-Gizmos.com

• CAT-40

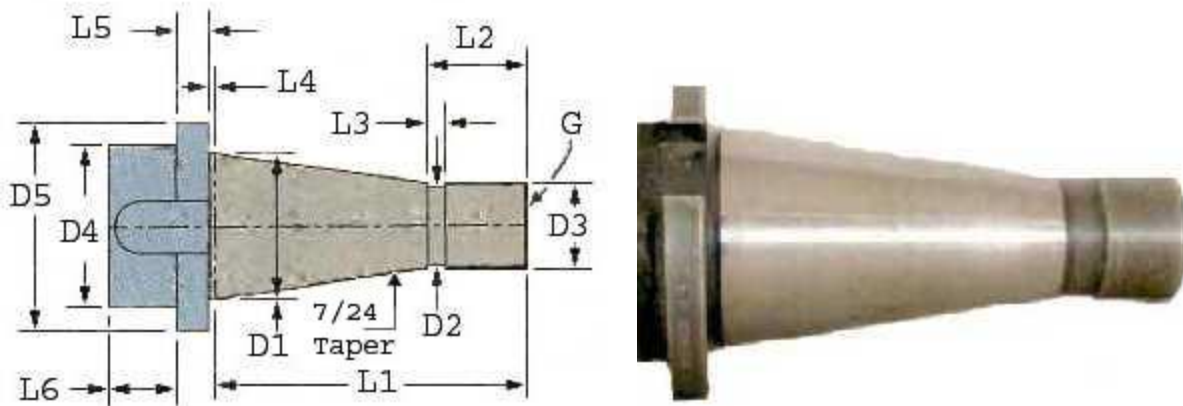
• CAT-45

• CAT-50

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NMTB (Quick Change) Shank

ANSI B5.18, National Machine Tool Builders' Association, 1927. DIN 2080 / IS 2340, ISO R 290-2583
 Also called Quick Change, NMTB, MM, National Standard, American Standard Machine Taper, etc.
 Units built to the ISO standards are commonly considered interchangeable with ANSI units. However, there are a few differences. (See Tables below). Most (but not all) NMTB shanks are compatible with the corresponding size Erickson Quick-Change Spindles. (See discussion below the tables).



ANSI B5.18 (from Kennametal catalog 7060)

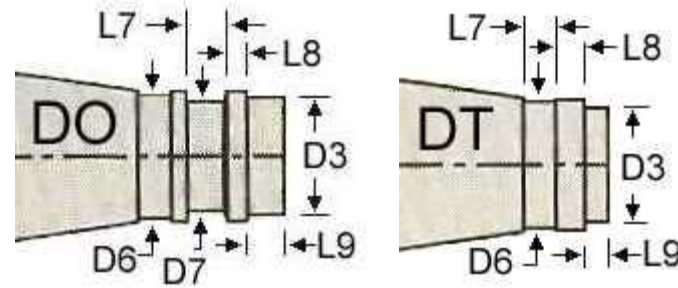
Size	D1	D2	D3	D4 max	D5*	L1	L2	L3	L4	L5	L6
30	1.250 [31.75]	0.655 [16.24]	0.673 [17.09]	1.380 [35.05]	1.812 [46.02]	2.690 [68.33]	0.810 [20.57]	0.125 [3.18]	0.076 [1.93]	0.344 [8.74]	0.359 [9.12]
40	1.750 [44.45]	0.935 [23.75]	0.984 [25.00]	1.890 [48.0]	2.500 [63.5]	3.690 [93.73]	1.180 [29.97]	0.188 [4.78]	0.076 [1.93]	0.313 [7.95]	?
50	2.750 [69.85]	1.495 [37.97]	1.545 [39.24]	2.760 [68.6]	3.500 [88.9]	5.000 [127.0]	1.000 [25.4]	0.188 [4.78]	0.141 [3.58]	0.453 [11.51]	?

* These are Kennametal dimensions. D5 varies with different mfgs. My Erickson Quick-Change 30 master can accept up to 1.86" dia flange. Some import NMTB-30 tooling I've seen is as large as 1.96".

ISO R 297-2583 and DIN 2080

Size	D1	~	D3	D4 max	D5	L1	L2	~	L4	L5	L6 min
30	31.75	~	?	?	50	68.39	?	~	1.62	8	?
DO40	44.45	~	22.63	50	63	93.40	?	~	1.6	10	11.0
45	57.15	~	?	?	80	106.8	?	~	3.2	12	?
DT50	69.85	~	34.25	78	97.5	126.8	25	~	3.2	12	16.0

Size	D6	D7	L7	L8	L9
DO40	24.0	21.05	7.0	4.4	7.0
DT50	38.00	~	7.0	10	7.0



Tools-n-Gizmos.com

NMTB Shank Tooling for sale:

Tools-n-Gizmos.com

• [NMTB 30](#)

• [NMTB 40](#)

• [NMTB 50](#)

NMTB shank compatibility with Erickson Quick-Change Spindles:

The NMTB shank was developed for use in the NMTB spindle which uses a draw bar to pull the shank up into the spindle. As a result, the tool flange thickness and the distance from the gage line of the taper to the outward face of the flange was not a critical dimension and was not consistent between all manufacturers of NMTB tooling.

The Erickson Tool Company developed the Erickson Quick-Change spindle to use the NMTB 30, 40, 45 and 50 tool holders already in existence. The Erickson QC system does not use a draw bar, it uses a quarter turn "locknut" to push and hold the tool taper in the spindle. Two "lips" in the nut push against the outer face of the tool flange. The key dimension (gage distance) that causes some NMTB holders to not work in an Erickson Quick-Change spindle is the distance between the taper gage line and the outer face of the flange (gage distance = $L4 + L5$ in above tables). Gage distance on some NMTB holders is too large, which does not allow the "lips" in the QC nut to engage the outside face of the flange.

The other issue is that the flange diameter (D5) on some NMTB holders (mostly cheaper imports) is too large to fit in the mouth of the Erickson Quick-Change spindle.

All NMTB holders made by Erickson work fine and I've read that Kennametal, Collis and Valenite holders work fine (at least the ones made in the last 15 years or so). The compatibility of other holders is in question. However, all is not lost, the flange of the tools that do not fit can be ground down a small amount and then they work fine in an Erickson spindle without affecting operation in an NMTB spindle.

(See [Erickson grinding procedure](#))

The "tail" of the NMTB shank is not required when mounting in an Erickson Quick-Change Spindle. So 30-Taper and 40-Taper tooling, without tail, work fine as long as the flange dimensions are correct. DO40 and DT50 tooling can also be used in Erickson Quick-Change spindles, but you may need to grind down the ribbed tail on some tooling for clearance in the Erickson QC spindle.

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Erickson QC Tooling for sale:

Tools-n-Gizmos.com

• [QC 30](#)

• [QC 40](#)

• [QC 50](#)

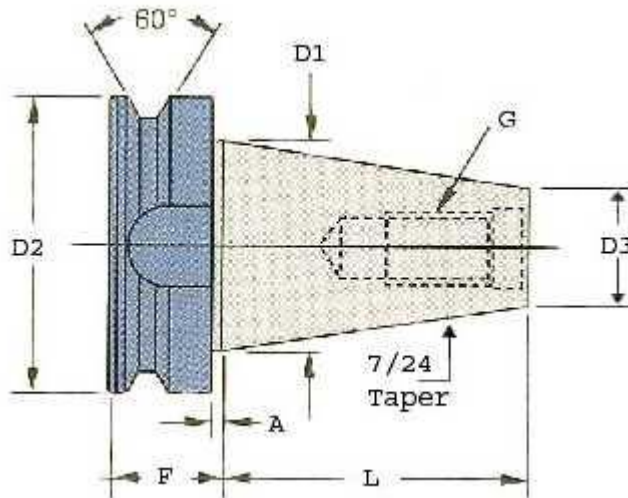
Note: These links only show items I have confirmed are compatible with Erickson Quick-Change Spindles.

Other items I have for sale may well be compatible but I have not verified that they are compatible.

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BT Taper

Also known as: JMTBA AS-403 "BT", JIS B 6339 - 1986, JIS B6339 - 1992, ISO 7388/1 - 1983



Size	D1	D2	D3	L	F	A	G
BT30	1.250 (31.75)	1.811 (46.00)	()	1.906 (48.40)	0.866 (22.00)	0.079 (2.00)	M12 thread
BT35	1.500 (38.10)	2.087 (53.00)	()	2.224 (56.50)	0.945 (24.00)	0.079 (2.00)	M12 thread
BT40	1.750 (44.45)	2.480 (63.00)	()	2.575 (65.40)	1.063 (27.00)	0.079 (2.00)	M16 thread
BT45	2.250 (57.15)	3.346 (85.00)	()	3.260 (82.80)	1.299 (33.00)	0.118 (3.00)	M20 thread
BT50	2.750 (69.85)	3.937 (100.00)	()	4.008 (101.80)	1.496 (38.00)	0.118 (3.00)	M24 thread

Tools-n-Gizmos.com

BT Shank Tooling for sale:

Tools-n-Gizmos.com

• BT-30

• BT-35

• BT-40

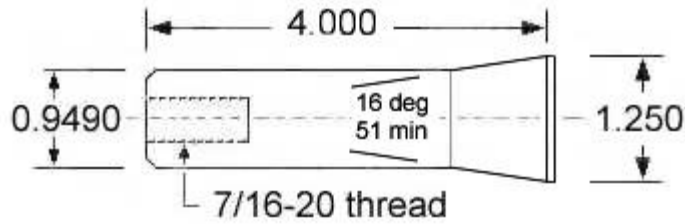
• BT-45

• BT-50

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R8 Shank

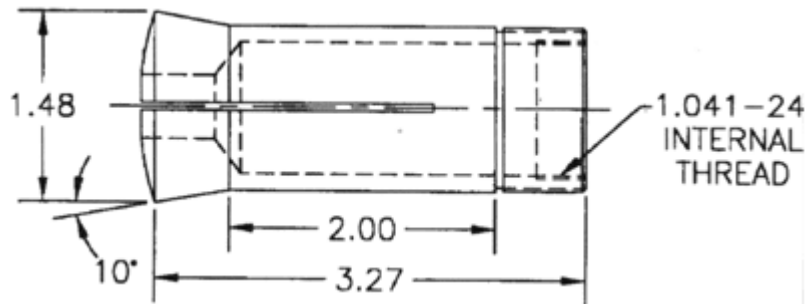
Also referred to as M1TR taper. This shank is held in place by a drawbar.



Tools-n-Gizmas.com
R8 Shank Tooling for sale
Tools-n-Gizmas.com

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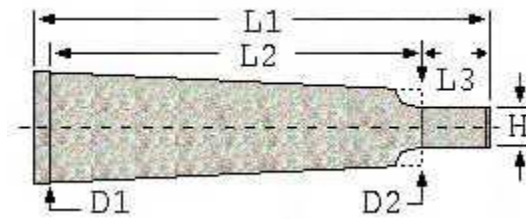
Specifications and Dimensions for 5c Collet



Morse Taper Shank

Generally referred to as MTx (ie MT3 for a #3 Morse Taper).

The taper range is from #0 to #7, and while all have different tapers, they are approximately 5/8" per foot. With a tang it is the same as DIN 228 Form B.



MT Size	D1 ⁽¹⁾ Gage Dia.	D2 ⁽²⁾	L2 ⁽³⁾	Taper per ft.	L1	L3	H	Stub L1 ⁽⁴⁾	Stub L3	Stub H
0	0.3561	0.252	2	0.62460	2-11/32	1/4	0.1562	~	~	~
1	0.475	0.369	2-1/8	0.59858	2-9/16	3/8	0.2031	1-5/16	5/16	13/64
2	0.700	0.572	2-9/16	0.59941	3-1/8	7/16	0.2500	1-11/16	7/16	19/64

3	0.938	0.778	3-3/16	0.60235	3-7/8	9/16	0.3125	2	9/16	25/64
4	1.231	1.020	4-1/16	0.62326	4-7/8	5/8	0.4787	2-3/8	11/16	33/64
4.5	1.500	1.266	4-1/2	0.62400	?	?	?	~	~	~
5	1.748	1.475	5-3/16	0.63151	6-1/8	3/4	0.6250	3	15/16	3/4
6	2.494	2.116	7-1/4	0.62565	8-9/16	1-1/8	0.7500	~	~	~
7	3.270	2.750	10	0.62400	11-5/8	1-3/8	1.1250	~	~	~

- (1) D1 (gage line dia. of shank) is the diameter of the mouth of the MT socket.
- (2) D2 is the diameter of the bottom of the socket at depth L2 from the mouth (D1).
- (3) L2 is the length (depth) of the Socket Taper.
- (4) D1 and Taper of Stub (short) MT shank is same as standard length MT shank.
(Stub shanks fit in standard length sockets, but the tang will not be engaged in the tang slot of the socket.)

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Morse Taper Tooling for sale:

Tools-n-Gizmos.com

• [Morse Taper Shank Tooling](#)

• [Tooling with Morse Taper receptacle](#)

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Jacobs Taper

Generally referred to as JT_x (ie JT₃ for a #3 Jacobs Taper).

Size	Large End	Small End Dia.	Taper Length	Taper per ft.
JT0	0.2500"	0.2284"	0.44"	0.5915
JT1	0.3840"	0.3334"	0.66"	0.9751
JT2 short	0.5488"	0.4876"	0.75"	0.9786
JT2	0.5590"	0.4876"	0.88"	0.9786
JT33	0.6240"	0.5605"	1.00"	0.7619
JT6	0.6760"	0.6241"	1.00"	0.6229
JT3	0.8110"	0.7461"	1.22"	0.6390
JT4	1.1240"	1.0372"	1.66"	0.6289
JT5	1.4130"	1.3161"	1.88"	0.6201



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Jacobs Taper Tooling for sale:

Tools-n-Gizmos.com

• [Tools with female Jacobs Taper](#)

• [Tools with male Jacobs Taper](#)

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Jarno Taper

Size	Large End	Small End Dia.	Taper Length	Taper per ft.
#2	0.2500"	0.2000"	1.00"	0.6000
#3	0.3750"	0.3000"	1.50"	0.6000
#4	0.5000"	0.4000"	2.00"	0.6000
#5	0.6250"	0.5000"	2.50"	0.6000
#6	0.7500"	0.6000"	3.00"	0.6000
#7	0.8750"	0.7000"	3.50"	0.6000
#8	1.0000"	0.8000"	4.00"	0.6000
#9	1.1250"	0.9000"	4.50"	0.6000
#10	1.2500"	1.0000"	5.00"	0.6000
#11	1.3750"	1.1000"	5.50"	0.6000
#12	1.5000"	1.2000"	6.00"	0.6000
#13	1.6250"	1.3000"	6.50"	0.6000
#14	1.7500"	1.4000"	7.00"	0.6000
#15	1.8750"	1.5000"	7.50"	0.6000
#16	2.0000"	1.6000"	8.00"	0.6000
#17	2.1250"	1.7000"	8.50"	0.6000
#18	2.2500"	1.8000"	9.00"	0.6000
#19	2.3750"	1.9000"	9.50"	0.6000
#20	2.5000"	2.0000"	10.00"	0.6000



Tools-n-Gizmos.com

Jarno Taper Tooling for sale:

Tools-n-Gizmos.com

• [Tools with female Jarno Taper](#)

• [Tools with male Jarno Taper](#)

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Brown & Sharpe Taper

Size	Large End	Small End Dia.	Taper Length	Taper per ft.
#1	0.2392"	0.2000"	0.94"	0.5020
#2	0.2997"	0.2500"	1.19"	0.5020
#3	0.3753"	0.3125"	1.50"	0.5020
#4	0.4207"	0.3500"	1.69"	0.5024
#5	0.5388"	0.4500"	2.13"	0.5016
#6	0.5996"	0.5000"	2.38"	0.5033
#7	0.7201"	0.6000"	2.88"	0.5010
#8	0.8987"	0.7500"	3.56"	0.5010
#9	1.0775"	0.9001"	4.25"	0.5009
#10	1.2597"	1.0447"	5.00"	0.5161

#11	1.4978"	1.2500"	5.94"	0.5010
#12	1.7968"	1.5001"	7.13"	0.4997
#13	2.0731"	1.7501"	7.75"	0.5002
#14	2.3438"	2.0000"	8.25"	0.5000
#15	2.6146"	2.2500"	8.75"	0.5000
#16	2.8854"	2.5000"	9.25"	0.5000
#17	3.1563"	2.7500"	9.75"	0.5000
#18	3.4271"	3.0000"	10.25"	0.5000

Tools-n-Gizmos.com B&S Tooling for sale Tools-n-Gizmos.com

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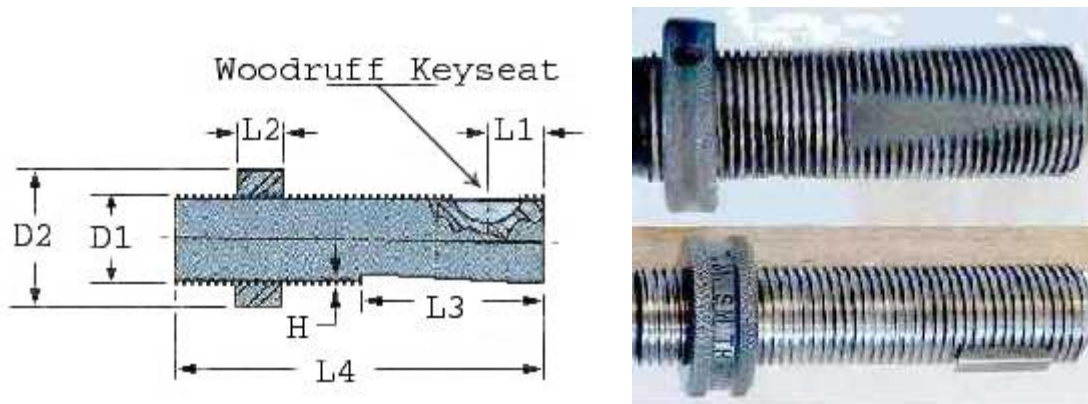
Automotive Shank

An automotive shank consists of a modified straight shank with whistle-notch, a Acme threaded section and a Woodruff key for locating and driving the shank within the holder. The threads are used to set the desired depth

that the automotive-shank tool holder can be inserted into the automotive adaptor by adjusting a collar (nut) that travels along the threads.

Referred to as Auto Shank, Acme shank or Adjustable Adapter shank.

Acme threaded shanks conform to automotive standard ANSI/ASME B5.11 (1987).



D1 Shank Size	D2 Nut Dia.	L1 Key Location	Woodruff Key Size	L2 Nut Width	L3 Flat Length	L4 Shank Length	H Flat Depth
1/2 - 16	0.88	0.50	1/8 x 5/8	0.38	1.50	3.00	0.06
5/8 - 16	1.00	0.50	5/32 x 5/8	0.38	1.50	3.00	0.06
3/4 - 12	1.25	0.50	5/32 x 5/8	0.38	1.50	3.00	0.06
7/8 - 12	1.25	0.63	3/16 x 3/4	0.38	1.88	3.63	0.06
1 - 12	1.50	0.63	3/16 x 7/8	0.38	1.88	3.63	0.06

1 1/16 - 12	1.56	0.63	3/16 x 7/8	0.38	1.88	3.63	0.06
1 1/4 - 12	1.75	0.69	?	0.38	2.63	4.63	0.06
1 3/8 - 12	1.88	0.69	1/4 x 1"	0.38	2.63	4.63	0.06
1 7/8 - 12	2.63	0.75	5/16 x 1-1/4	0.50	3.00	5.63	0.06

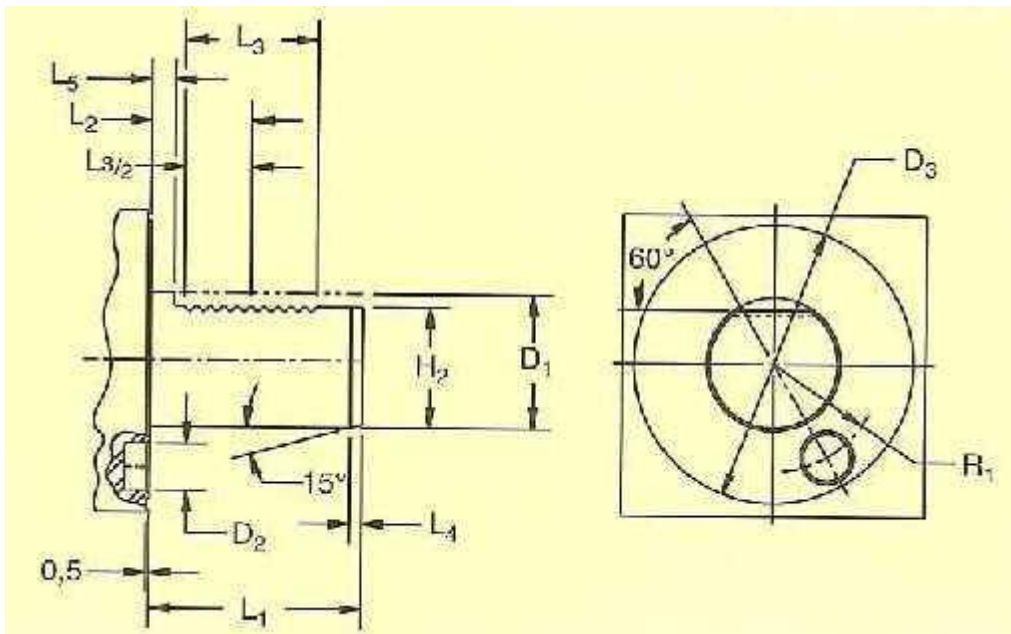
Tools-n-Gizmas.com

Automotive Shank Tooling for sale

Tools-n-Gizmas.com

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VDI Shank



Size	D1	L1	D2	D3	H2	L2	L3	L32	L4	L5	I
25	0.983 (25)	1.9 (48.3)	0.394 (10.0)	2.28 (57.9)	0.925 (23.5)	? (?)	1.35 (34.3)	? (?)	? (?)	0.28 (7.1)	0
30	1.181 (30.0)	2.165 (55.0)	0.551 (14.0)	2.677 (68.0)	1.063 (27.0)	1.169 (29.7)	1.575 (40.0)	0.787 (20.0)	0.079 (2.0)	0.276 (7.0)	2
40	1.575 (40.0)	2.480 (63.0)	0.551 (14.0)	3.268 (83.0)	1.417 (36.0)	1.169 (29.7)	1.575 (40.0)	0.787 (20.0)	0.118 (3.0)	0.276 (7.0)	3
50	1.969 (50.0)	3.071 (78.0)	0.630 (16.0)	3.858 (98.0)	1.772 (45.0)	1.406 (35.7)	1.890 (48.0)	0.945 (24.0)	0.118 (3.0)	0.315 (8.0)	3
60	2.362 (60.0)	3.701 (94.0)	0.630 (16.0)	4.843 (123.0)	2.165 (55.0)	1.720 (43.7)	2.205 (56.0)	1.102 (28.0)	0.157 (4.0)	0.394 (10.0)	4

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VDI Shank Tooling for sale

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HSK Shank (hollow taper shank system)

I've seen numerous references to standards for the HSK shank including:

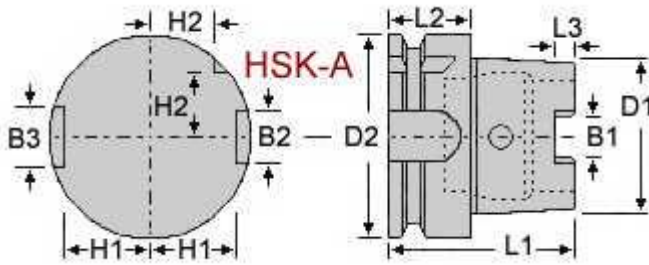
ISO 12164, DIN 69893, DIN 29893-1 and DIN 69063-1.

The taper on all HSK shanks is 10:1.

The flange groove on forms A, B, E and F is 60 degrees

HSK-A DIN 69893-1:1996-01

- For use on milling machines and milling centres with automatic tool change.
- Also suitable for manual tool change.
- Coolant supply through the center.



Size	Form	D1	D2	L1	L2	L3	B1	B2	B3	H1	H2
32	A	24	32	36	20	5	7	7	9	13	9
40	A	30	40	40	20	6	8	9	11	17	11
50	A	38	50	51	26	7.5	10.5	12	14	21	14
63	A	48	63	58	26	10	12.5	16	18	26.5	18
80	A	60	80	66	26	12	16	18	20	34	20
100	A	75	100	79	29	15	20	20	22	44	22
125	A	95	125	92	29	19	25	25	28	55.5	25
160	A	120	160	111	31	23	30	32	36	72	30

HSK-B DIN 69893-1:1996-01

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

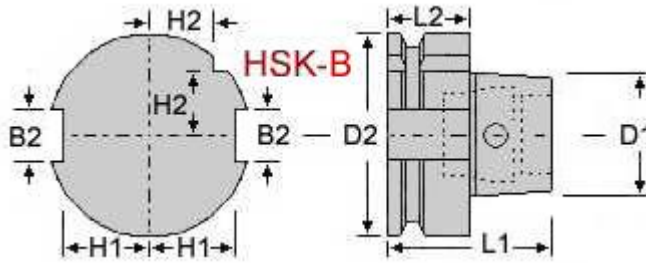
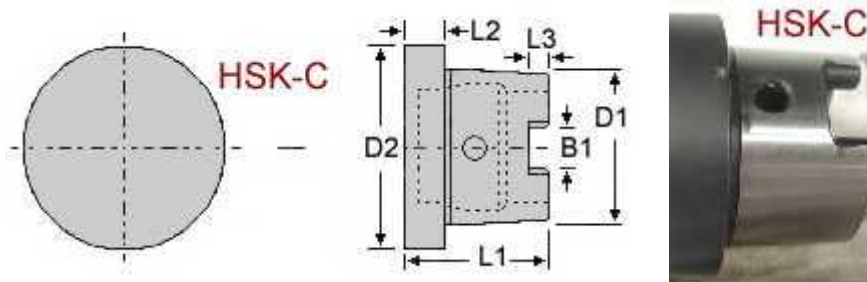


Photo of actual unit available soon

Size	Form	D1	D2	L1	L2	B2	H1	H2
40	B	24	40	36	20	10	16	?
50	B	30	50	46	26	12	20	?
63	B	38	63	51	26	16	25	?
80	B	48	80	58	26	18	31.5	?
100	B	60	100	69	29	20	40	?
125	B	75	125	79	29	25	50	?
160	B	95	160	94	31	32	62.5	?

HSK-C DIN 69893-1:1996-01

- Manual tool change type
- For special purpose machines, transfer lines and lathes.
- Coolant supply through the center.



Size	Form	D1	D2	L1	L2	L3	B1
32	C	24	32	26	10	5	7
40	C	30	40	30	10	6	8
50	C	38	50	37.5	12.5	7.5	10.5
63	C	48	63	44.5	12.5	10	12.5
80	C	60	80	56	16	12	16
100	C	75	100	66	16	15	20

HSK-D DIN 69893-1:1996-01

- Manual tool change type
- 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

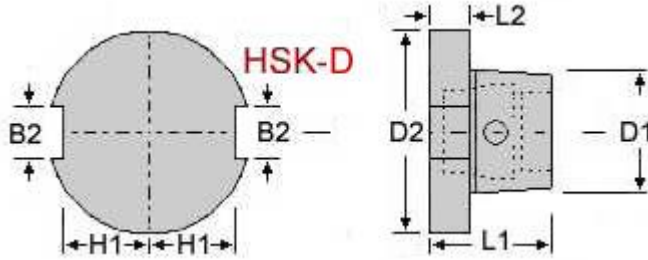
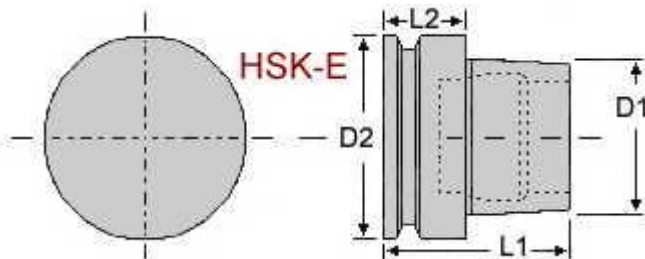


Photo of actual unit
available soon

Size	Form	D1	D2	L1	L2	B2	H1
40	D	24	40	36	20	10	16
50	D	30	50	46	26	12	20
63	D	38	63	51	26	16	25
80	D	48	80	58	26	18	31.5
100	D	60	100	69	29	20	40

HSK-E DIN 69893-1:1996-01

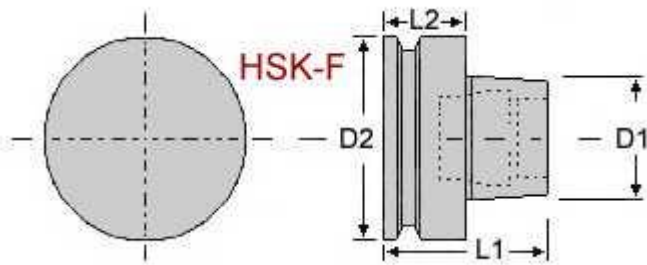
- High speed applications for automatic tool change.
- No rear drive slots, no drive slots in the flange.
- Coolant supply through the center.



Size	Form	D1	D2	L1	L2
25	E	19	25	23	10
32	E	24	32	26	20
40	E	30	40	40	20
50	E	38	50	51	26
63	E	48	63	58	26

HSK-F DIN 69893-1:1996-01

- High speed applications for automatic tool change.
- No rear drive slots, no drive slots in the flange.
- Enlarged flange diameter for rigidity



Size	Form	D1	D2	L1	L2
25	F	?	25	?	?
32	F	?	32	?	?
40	F	?	40	?	?
50	F	30	50	46	26
63	F	38	63	51	26

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HSK Shank Tooling for sale

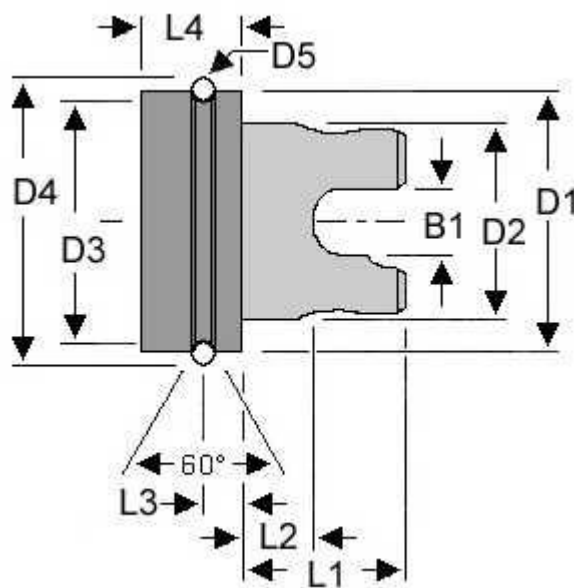
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KM (VM) Shank

KM tooling is designed around a short 10:1 tapered shank. The taper is self centering to promote easy tool loading and unloading in both manual and automatic applications. KM tooling is designed to have simultaneous taper and face contact. The KM clamping mechanism fits inside the taper shank of the KM tool and utilizes two angled holes, called ball tracks, machined through the shank. The locking balls are forced radially outward by a wedge-shaped piece called the lock rod.

The Valenite VM shank is the same as the Kennametal KM shank.

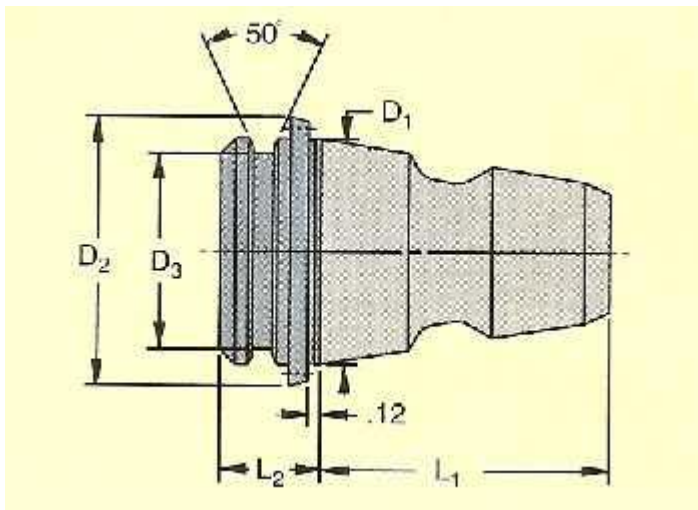


Size	D1	D2	D3	D4	D5	L1	L2	L3	L4 min.	B1
KM32	1.260 (32.0)	0.945 (24.0)	1.142 (29.0)	1.435 (36.44)	0.138 (3.5)	0.787 (20.0)	0.315 (8.0)	0.197 (5.0)	0.394 (10.0)	0.354 (9.0)
KM40	1.575 (40.0)	1.181 (30.0)	1.457 (37.0)	1.750 (44.44)	0.138 (3.5)	0.984 (25.0)	0.433 (11.0)	0.236 (6.0)	0.472 (12.0)	0.394 (10)
KM50	1.969 (50.0)	1.575 (40.0)	1.681 (42.7)	2.339 (59.40)	0.279 (7.0)	1.260 (32.0)	0.472 (12.0)	0.354 (9.0)	0.630 (16.0)	0.551 (14.0)
KM63	2.480 (63.0)	1.969 (50.0)	2.193 (55.7)	2.850 (72.40)	0.276 (4.0)	1.575 (40.0)	0.709 (18.0)	0.394 (10.0)	0.709 (18.0)	0.630 (16.0)
KM80	3.150 (80.0)	2.520 (64.0)	2.862 (72.7)	3.520 (89.40)	0.276 (7.0)	1.772 (45.0)	0.728 (18.5)	0.433 (11.0)	0.866 (22.0)	0.787 (20.0)

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KM and VM Shank Tooling for sale
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Monarch Shank



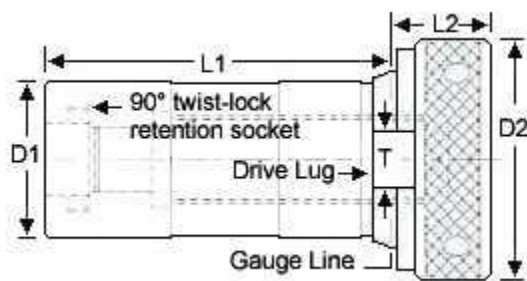
Size	Gage Dia. D1	Driver Gear D2	Flange D3	L1	L2 min.
45	2.250	2.68	1.75	2.88	1.00

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SDH Shank (Morris Tooling)

Features: (from Morris Tooling literature)

- Single handed, ultra fast Tool changes
- High degree of repeatability.
- Holder secured and released from spindle without wrenches or keys
- Very high torque drive capability.
- Retention unit located inside spindle to prevent damage and contamination.
- Toolholder locked and released by simple 90° rotation.
- An audible ("Click") confirms the holder is positively locked into the spindle.
- Centralising cone ensures high concentricity.
- Through Coolant facility up to 300psi.



dimensions in mm					
Size	D1*	D2*	L1*	L2**	T**
SDH16	16	29	45	?	?
SDH20	20	36	56	18	8.8
SDH25	25	41	64	?	?
SDH28	28	44	64	19	9.6
SDH36	36	54	82	?	?

* dimension from Morris Tooling literature.

** measured from actual units

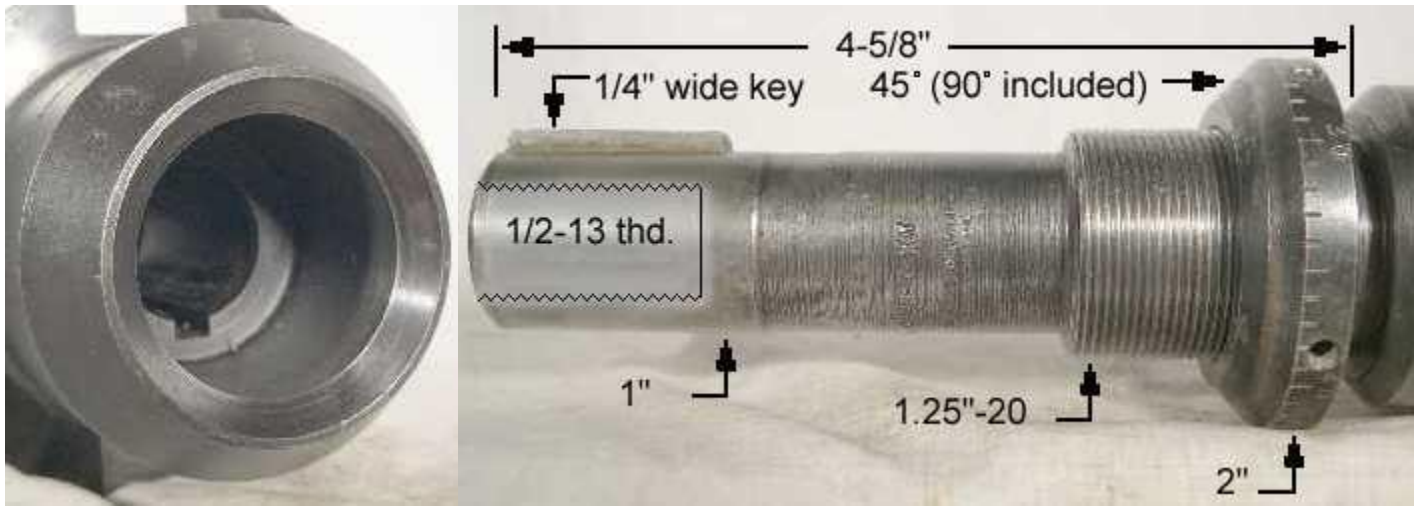
[Morris Tooling catalog information](#)

[Tools-n-Gizmos.com](#) [SDH Shank Tooling for sale](#) [Tools-n-Gizmos.com](#)
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AXA Shank

Features:

- The AXA shank (as I call it) is a 1" keyed straight shank with tapered depth adjustment collar.
- The AXA Master (or chuck) has a 1" keyed straight bore with tapered recess mouth.
- The shank is held in the chuck by a "draw bar" (1/2-13 cap screw) installed from the backend of the chuck shank.
- All the AXA tooling I have seen were made by either "TSD Microbore, Frankenmuth, MI" or "DeVlieg Microbore div., Royal Oak, MI" which are closely related to each other.
- I have no idea if an industry standard exists for this shank or how prevalent they are.



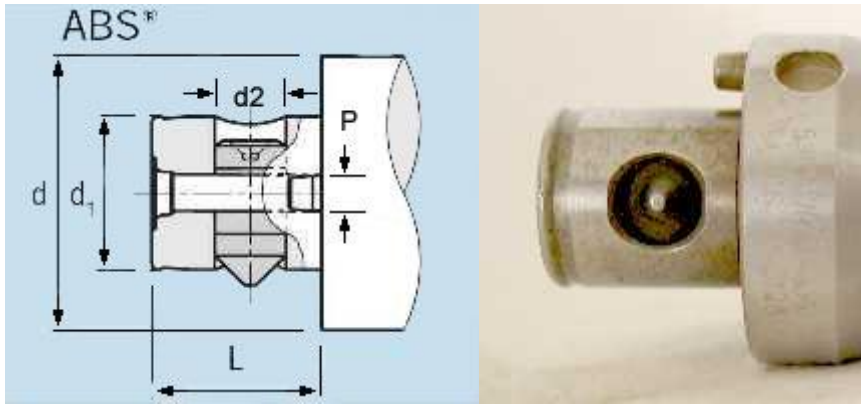
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 AXA Shank Tooling for sale

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Komet ABS



ABS Size	d inch (mm)	d1 inch (mm)	L inch (mm)	D2 (dia) inch (mm)	P (Pin) inch (mm)
ABS 25	0.984 (25)	0.512 (13)	0.787 (20)	? (?)	? (?)
ABS 32	1.260 (32)	0.630 (16)	0.906 (23)	? (?)	? (?)
ABS 40	1.575 (40)	0.787 (20)	1.102 (28)	? (?)	? (?)
ABS 50	1.969 (50)	1.102 (28)	1.220 (31)	0.51 (13)	1/4 (6.4)
ABS 63	2.480 (63)	1.339 (34)	1.496 (38)	0.65 (16.5)	3/8 (9.5)
ABS 80	3.150 (80)	1.811 (46)	1.693 (43)	? (?)	? (?)
ABS 100	3.937 (100)	2.205 (56)	2.165 (55)	? (?)	? (?)
ABS 125	4.921 (125)	2.756 (70)	2.756 (70)	? (?)	? (?)

ABS 160	6.299 (160)	3.543 (90)	3.543 (90)	? (?)	? (?)
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 [Komet ABS Shank Tooling for sale](#)

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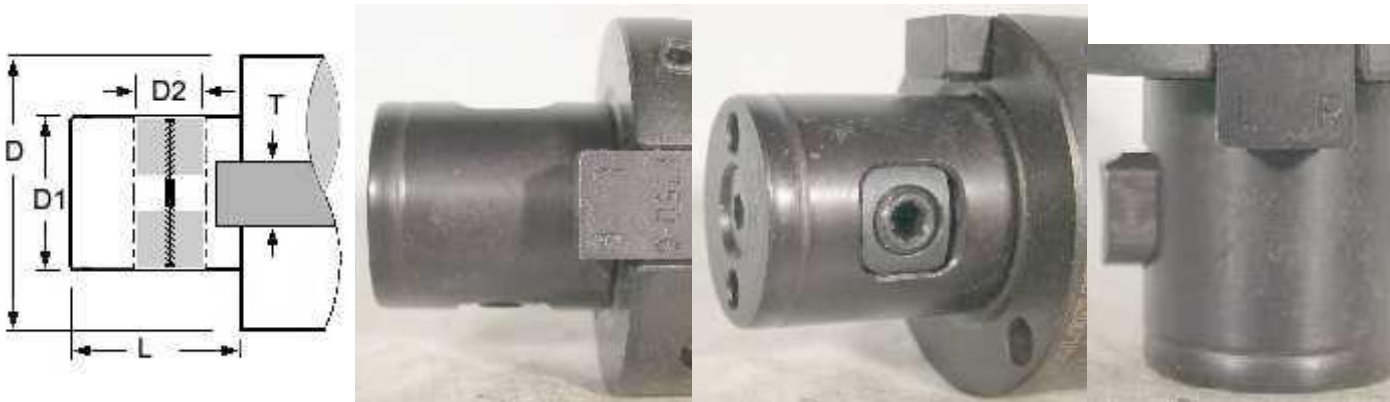
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Unknown #2

The only information I have on this Shank is taken from units I have in hand. I have no idea if there is an "Industry standard" that defines the shank or if its a Valenite proprietary shank. The following dimensions are average caliper measurements, so use them accordingly.

The basic shank is the same as the Komet ABS shank, However there are 2 major differences:

- The cross pin:
ABS shank has a round fixed length pin with socket on one side and point on the other
UNK#2 shank has a square pin that changes length as you turn the central socket head screw.
- The indexing key:
ABS shank has small round pin, UNK#2 shank has a large rectangular tang.



Size	D inch (mm)	D1 inch (mm)	L inch (mm)	D2 (sq) inch (mm)	T (tang) inch (mm)
50	1.97 (50)	1.1 (28)	1.22 (31)	0.47 (12)	0.47 (12)

Tools-n-Gizmos.com

 [Unk#2 Shank Tooling for sale](#)

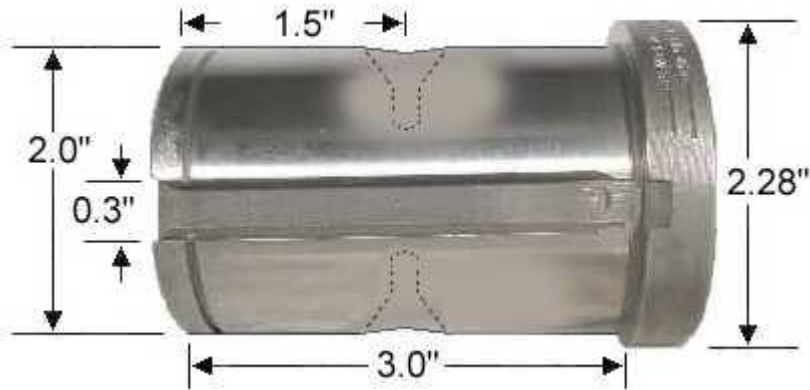
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Beaver Quick Change Shank

The only information I have on the Beaver Quick Change Shank is taken from units I have in hand. I have no idea if there is an "industry standard" that defines the shank or if its a Beaver Tool proprietary shank. The

following dimensions are average caliper measurements, so use them accordingly.



- Flange thickness ranged from 0.35" to 0.5" on the 5 units I measured.
- Key-slot depth is approximately 0.2".
- The dimples are approximately 0.4" deep, 3/8" dia throat and 0.6" dia. mouth.



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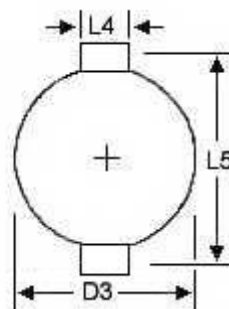
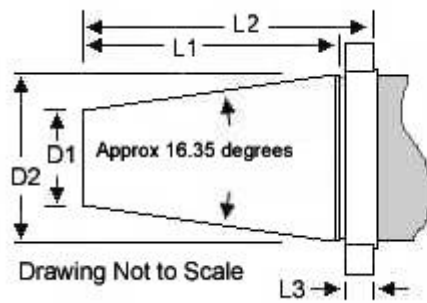
Beaver Quick Change Tooling for sale

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Unknown Taper #1

- I don't know who made it, developed it or if there is an industry standard.
- The following dimensions are taken from 2 Endmill Holders I have.
- If you know what these are, Please enlighten the rest of us.



Measured values from actual units.

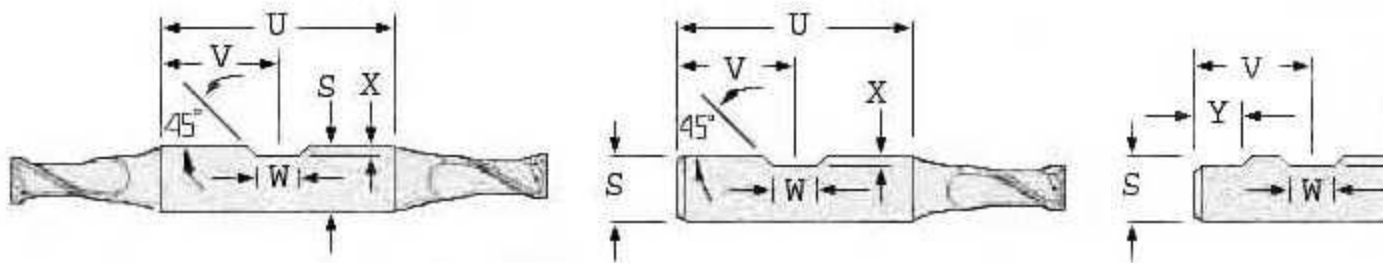
D1	D2	D3	L1	L2	L3	L4	L5
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0.73	1.405	1.415	2.35	2.72	0.32	0.55	2.21
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Weldon Shank

Standard Weldon Shank produced by The Weldon Tool Company.
Lots of other manufactures produce shanks with a "Weldon Flat".



S	U	V	W min.	W max.	X	Y
3/8	1-9/16	25/32	0.280	0.282	0.050	~
1/2	1-25/32	57/64	0.330	0.332	0.060	~
5/8	1-29/32	61/64	0.400	0.402	0.065	~
3/4	2-1/32	1-1/64	0.455	0.457	0.065	~
7/8	2-1/32	1-1/64	0.455	0.457	0.065	1/2
1	2-9/32	1-9/64	0.515	0.517	0.075	1/2
1-1/4	2-9/32	1-9/64	0.515	0.517	0.094	1/2
1-1/2	2-11/16	1-3/16	0.515	0.517	0.094	9/16
2	3-1/4	1-27/32	0.700	0.702	0.100	27/32
2-1/2	3-1/2	1-15/16	0.700	0.702	0.100	27/32

Tolerances

Element	Range	Direction	Tolerance
S	All Sizes	Minus	0.0001 to 0.0005
U	All Sizes	Plus or Minus	1/32
V	All Sizes	Plus or Minus	1/64
X	All Sizes	Minus	1/64
Y	7/8" to 2-1/2"	Plus or Minus	1/32

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Whistle Notch Shank - DIN6535 form HE

The following are sample Whistle Notch shanks that purport to comply with DIN6535 form HE



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Note: The specifications and information provided on this page are intended for part identification purposes only. Although we believe them to be correct, dimensions should not be used for part construction or inspection.

The above information was collected from numerous sources, including:

- Kennametal "Machining Center Tooling" Catalog.
- [Briney Tooling Systems](#)
- [TSD Tooling Systems Division](#)
- [Milling Machine Tapers by Rick Dulas](#)