Tooling Available

General Guidelines

- Do no use 2-3 flute endmills on steel
- Do no use ZRN or Other Aluminum coated endmills on steel. AKA if it is coated do not use. Gold is ZRN coated
- Do not use aggressive feeds and speeds. Keep it low and slow until you are 100% sure
- Do not take super light passes and grind away. This is bad for the endmill
- Most of the tools pre-loaded are for aluminum or plastic do not use them for steel. Over time we will add steel tools to the mix. For now please work with the Tormach manager

Tool Library Link (Always double check the tools as they can change on occasion)

https://a360.co/2KlZJry

Tools Loading into Holders

Tool Number	Description	Supplier	Model Number	Link for Purchase	Cost	Tool Type	Stick Out	Feeds and Speeds Details	Notes
T1	2in	Tormach		https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=38258&portrelay=1		Fly Cutter		Aluminum 30 ipm /2500 fpm Steel do not use this tool on steel as it will break the insert	Set for 2in width of cut appoximatly
T2	.98430	Tormach		https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=31258&portrelay=1	155.00 Inserts are $22.00 per set and only available in 10 packs	25mm Center Indexing on Long shaft			Part number 31258
T3	3/8 Thread Mill	Tomach	34696	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=34696	81.95	Threadmill			Used for 3/8, 7/16, 1/2, M10, M12, M14 threads
T4	3/8 Ball Endmill								
T5	3/8 90 Degree Spot Drill								
T6	#7 Drill								
T7	1/4 90 Degree Spot Drill								
T8	1/2 90 Degree Center Drill								
T9	17/64 Drill								
T10	1/8 Flat Endmill								
T11	1/8 Ball Endmill								
T12	1/4 Flat Endmill								
T13	7/64 Drill								
T14	3/8 Flat Long								
T15	3/8 Flat								
T16	#43 Drill								
T17	1/8 Spot Drill								
T18	3/16 Ball Endmill								
T19	3/16 Flat Endmill								
T20	Jacobs Chuck								
T21	.1405 Drill								
T22	1/2 Flat Endmill								
T23	1/2 Ball Endmill								
T24	#7 Drill								
T25	#17 Drill								
T26	13/32 Drill								
T27	1/4 Drill								

T28	1/8 Drill								
T29	#45 Drill								
T30	#30 Drill								
T31	#40 Drill								
T32	#37 Drill								
T33	#47 Drill								
T34	1/8 Slot Mill								
T35	3/32 Slot mill								
T36	1/16 Flat								
T37									
T38									
T39									
T40									
T41									
T42									
T43									
T44									
T45									
T46									
T47									
T48									
T49									
T50	Haimer Probe								
T52	Tapping Head								

Tool Holder Images

L to R	Image
• Slot Saw • Empty • Slot Saw • Key Cutter	

- T52TappingHead-Needtosetoffsetandthreadinoffsetsbeforeusage
- T50HaimerProbe

- T6 #7 Drill
- T53/890 Degree Spot Drill
- T43/8 Ball Endmil
- T3 Thread Mill
- T25mm Center Cut Endmill
- T1 Superfly

- T12 1/4 Flat Endmill
- T11 1/8 Ball Endmill
- T10 1/8 Flat Endmill
- T9 7/64 Drill
- T8 1/2 60 deg Center Drill

- T71/490DegreeSpotDrill

- T183/16Ball
- T171/890Degreespotdrill
- T16#43Drill
- T153/8Flat
- T143/8FlatLong
- T137/64Drill

- T24#7Drill

- T231/2 Ball Long
- T221/2 Flat Long
- T21.1405 Drill
- T20 Jacobs Chuck (Dynamic based upon drill used)

- T193/16Flat

- T30#30Drill
- T29#45Drill
- T281/8Drill
- T271/4Drill
- T2613/32Drill
- T25#17Drill

- T33 #47 Drill
- T32 #37 Drill
- T31 #40 Drill

- T361/16 Flat
- Small Jacobs Chuck

Spares/Inventory

Tool Number	Size	Quantity	Supplier	Model Number	Link for Purchase	Cost	Tool Type	Notes
	17/64 Drill	10	Tormach	33583	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=33583	263.00 per 10	Drill	

	1/4 Drill	10	Tormach	33582	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=33582	230.00 per 10	Drill	
	13/32 Drill	5	Tormach	33602	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=33602	38.00 Per 5	Drill	
	#7 Drill	10	Tormach	34507	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=34507	153.00 Per 10	Drill	
	1/8 Drill	10	Tormach	33574	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=33574	131.00 Per 10	Drill	
	#43 Drill	10	Tormach	34543	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=34543	98.00 Per 10	Drill	
	#16 Drill	10	Tormach	34516	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=34516	142.00 Per 10	Drill	
	#17 Drill	10	Tormach	34517	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=34517	142.00 Per 10	Drill	
	#45 Drill	10	Tormach	34545	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=34545	98 Per 10	Drill	
	#46 Drill	10	Tormach	34546	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=34546	98 Per 10	Drill	
	#40 Drill	10	Tormach	34540	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=34540	98 Per 10	Drill	
	#37 Drill	10	Tormach	34537	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=34537	98 Per 10	Drill	
	#31 Drill	10	Tormach	34531	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=34531	98 Per 10	Drill	
	#30 Drill	10	Tormach	34530	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=34530	98 Per 10	Drill	
	#29 Drill	10	Tormach	34529	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=34529	98 Per 10	Drill	
	1/16 2 flute Flat	1	Kodiak	5463480 B007BTQK9i	https://www.kodiakcuttingtools.com/viewproducts/carbide-end-mills-2-flute-single-end-ticn-coated&parttohighlight=5463480	8.90	Endmill	https://www.kodiakcuttingtools.com/CarbideEndMillSpeedsAndFeeds
	1/8 4 Flute HSS	1	YG1	07039	http://www.yg1usa.com/feature/itemdetail.asp?edpno=07039 https://apexindustrialsupply.com/yg1-usa-edp-07039-4-flute-regular-length-center-cut-hss-1-8-x-3-8-x-3-8-x-2-5-16/	8.37	Endmill	http://www.yg1usa.com/feature/speed_data.asp?img=brown_mill/141&name=TECHNICAL%20DATA
	5/16 4 Flute HSS	1	YG1	07051	http://www.yg1usa.com/feature/itemdetail.asp?edpno=07051 https://apexindustrialsupply.com/yg1-usa-edp-07051-4-flute-regular-length-center-cut-hss-5-16-x-3-8-x-3-4-x-2-1-2/	8.37	Endmill	http://www.yg1usa.com/feature/speed_data.asp?img=brown_mill/141&name=TECHNICAL%20DATA
	3/16 4 flute HSS	1	YG1	07043	http://www.yg1usa.com/feature/itemdetail.asp?edpno=07043 https://apexindustrialsupply.com/yg1-usa-edp-07043-4-flute-regular-length-center-cut-hss-3-16-x-3-8-x-1-2-x-2-3-8/	8.37	Endmill	http://www.yg1usa.com/feature/speed_data.asp?img=brown_mill/141&name=TECHNICAL%20DATA
	5/16 2 flute HSS	1	YG1	01051	https://apexindustrialsupply.com/yg1-usa-edp-01051-2-flute-regular-length-se-hss-5-16-x-3-8-x-9-16-x-2-5-16/	7.57	Endmill	
	1/4 2 flute HSS	1	YG1	01047	https://apexindustrialsupply.com/yg1-usa-edp-01047-2-flute-regular-length-se-hss-1-4-x-3-8-x-1-2-x-2-5-16/	7.57	Endmill	
	1/8 2 Flute Carbide (TICN)	3	Tormach YG1	33439	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=33439 Same part http://www.yg1usa.com/feature/itemdetail.asp?edpno=21601TC Same Part Cheaper https://apexindustrialsupply.com/yg1-usa-edp-21601tc-2-flute-regular-length-42-deg-helix-straight-shank-ticn-coated-carbide-for-aluminum-banshee-1-8-x-1-4-x-5-16-x-1-3-4/	25.25 19.75	Endmill	http://www.yg1usa.com/feature/speed_data.asp?img=blue_mill/116&name=SPEED%20and%20FEED%20DATA
	3/16 2 flute TIAIN Coated	2	Tormach YG1	33741	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=33741	12.05	Endmill	http://www.yg1usa.com/feature/speed_data.asp?img=blue_mill/116&name=SPEED%20and%20FEED%20DATA

	1/16 2 Flute TICN	1	Tormach YG1	33434 21554TC	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=33434 http://www.yg1usa.com/feature/itemdetail.asp?edpno=21554TC https://apexindustrialsupply.com/yg1-usa-edp-21566tc-2-flute-regular-length-42-deg-helix-straight-shank-ticn-coated-carbide-for-aluminum-banshee-3-16-x-1-4-x-7-16-x-2/	25.25	Endmill	http://www.yg1usa.com/feature/speed_data.asp?img=blue_mill/116&name=SPEED%20and%20FEED%20DATA
	1/2 2 flute ZRN Coating Extended Length	1	Lakeshore	350012LXRF	http://www.lakeshorecarbide.com/12extendedlengthrougherfinisher2flutevariablefluteendmillforaluminumzrn.aspx	80.94	Endmill	http://www.lakeshorecarbide.com/lakeshorevariablespeedandfeedforaluminum.aspx
	3/8 3 flute ZRN Extended Length	1	Lakeshore	360038X-XL	https://www.lakeshorecarbide.com/38xtralonglengthvariablefluteendmillforaluminumzrn.aspx	71.99	Endmill	http://www.lakeshorecarbide.com/pdf/VFA.pdf
	3/8 2 Flute ZRN Coated	2	Lakeshore	320038XRF	http://www.lakeshorecarbide.com/38rougherfinishersquareendvariable2fluteendmillforaluminumzrn.aspx	41.50	Endmill	http://www.lakeshorecarbide.com/pdf/VFA.pdf
	1/4 3 flute ZRN Coated	2	Lakeshore	330014XRF	http://www.lakeshorecarbide.com/14rougherfinishersquareendvariable3fluteendmillforaluminumzrn.aspx	28.55	Endmill	http://www.lakeshorecarbide.com/pdf/VFA.pdf
	3/16 2 Flute Ball ZRN Coated	1	Lakeshore	340316XRF	http://www.lakeshorecarbide.com/316rougherfinishervariablefluteballendmillforaluminumzrn.aspx	30.27	Endmill	http://www.lakeshorecarbide.com/pdf/VFA.pdf
	1/8 2 flute ball ZRN Coated	1	Lakeshore	340018XRF	http://www.lakeshorecarbide.com/18rougherfinishervariablefluteballendmillforaluminumzrn.aspx	24.29	Endmill	http://www.lakeshorecarbide.com/pdf/VFA.pdf
	1/8 2 Flute Flat ZRN Coated	5	Lakeshore	350018XRF	https://www.lakeshorecarbide.com/18rougherfinishervariable2fluteendmillforaluminumzrn.aspx	16.47	Endmill	
	1/16 2flute Flat	3	Lakeshore	LC204-001020	https://www.lakeshorecarbide.com/116dia2flutereglengthendmilluncoated.aspx	5.94	Endmill	
	1/16 2 flute Ball TIALN	1	Lakeshore	LC219-001023	http://www.lakeshorecarbide.com/116stubcarbideballendmill2flutetialncoated.aspx	9.95	Endmill	
	1/8 2 flute	1	Onsrud	AMC400002	https://www.onsrud.com/Products/AMC400002.asp	18.95	Endmill	
	3/16 2 flute	1	Onsrud	AMC400008	https://www.onsrud.com/Products/AMC400008.asp	25.95	Endmill	
	1/4 2 flute medium length	2	Onsrud	AMC700752	https://www.onsrud.com/Products/AMC700752.asp	34.45	Endmill	
	1/4 2 flute Standard length	2	Onsrud	AMC700102	https://www.onsrud.com/Products/AMC700102.asp	30.90	Endmill	
	3/8 2 flute medium length	1	Onsurd	AMC700852	https://www.onsrud.com/Products/AMC700852.asp	49.35	Endmill	
	1/2 2 flute	1	Onsrud	AMC700952	https://www.onsrud.com/Products/AMC700952.asp	72.45	Endmill	
	#29 Cabide Jobber Drill	1	Ultratools	51129	https://www.ultra-tool.com/products/	13.30	Endmill	
	1/4 90 Degree Spot Drill	1	Ultratools	52516	https://www.ultra-tool.com/products/	16.20	Endmill	
	21/32 4 flute HSS Endmill	1	Niagara	MC40213	Old Product		Endmill	
	41/64 4 flute HSS Endmill	1	Niagara	MC40209			Endmill	
	3/8 HSS 4 flute	1	Niagara	EDP N52264			Endmill	
	1/2 HSS 4 flute	1	Niagara	EDP N52268			Endmill	
	3/8 4 flute long	1	Niagara	EDP N63342			Endmill	
	1/4 4 flute HSS	1	Shars	404-9395	https://www.shars.com/1-4-x-3-8-m-42-cobalt-4-flute-double-end-mill-1	8.00	Endmill	
	1/16 woodruff Keyseat Cutter	1	Whitney	302040	https://www.whitneytool.com/PDF/WhitneyCatalog.pdf https://www.whitneytool.com/Product.aspx?ID=8544		Endmill	
	#37 Reamer	1	Morse	5661	https://www.morsecuttingtools.com/catalogue/product/1213060 https://www.motionindustries.com/productDetail.jsp?sku=06923027	34.42	Endmill	
	3" x 3/32" X 30T Slot Mill	1	Tormach	34988	https://tormach.com/store/index.php?app=ecom&ns=prodshow&ref=34988	96.00	Endmill	
	3" X 1/8 X 30T Slot	1	Tormach	34989	https://tormach.com/store/index.php?app=ecom&ns=prodshow&ref=34989	113.00	Endmill	

	1/4 20 4 flute long plug	1	Granger	008862AS	https://www.grainger.com/product/REGAL-1-4-20-39TA77	29.35	Imperial Tap	
	2-56 Plug	2	OSG	2492800	http://www.osgtool.com/Product-Detail/HYPRO-DC-Taps/2492800	25.80	Imperial Tap	
	2-56 Bottom	2	OSG	2492900	http://www.osgtool.com/Product-Detail/HYPRO-DC-Taps/2492900	25.80	Imperial Tap	
	0/80 Tap	2	Widia /Granger	13202	https://www.widia.com/en/products/44931668/557905/25758765/26261949/100007411.html?orderNumber=2750249 https://www.grainger.com/product/WIDIA-GTD-0-80-4CPH9	15.40	Imperial Tap	
	12-32 Tap	1	Unknown		http://www.northbaycuttingtools.com/12-32-gh3-high-speed-steel-4-flute-bottom-tap-12121232	8.99	Imperial Tap	
	8-32 Tap	2	Greenfeild Tap & Die Tormach	34567	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=34567&portrelay=1	7.65	Imperial Tap	
	6-32 Tap	3	OSG	2401603	http://www.osgtool.com/Product-Detail/HYPRO-DC-Taps/2401603	14.12	Imperial Tap	
	10-32 Tap	1	YG1 Tormach	I9343	http://www.yg1usa.com/feature/itemdetail.asp?edpno=I9343 https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=34569&portrelay=1	7.65	Imperial Tap	
	1/4-20 Tap	1	YG1 Tormach	I9403	https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=34570&portrelay=1	7.65	Imperial Tap	
	M2.5 X 0.45	3	Greenfeild	328174	https://www.amazon.com/Greenfield-Threading-328174-M2-5-Bottom/dp/B0196606KC	9.04	Metric Tap	
	M2.5 X 0.45	2	Helicoil	2087-2.5	https://www.motionindustries.com/productDetail.jsp?sku=01549979	29.91	Metric Tap	
	M2.5 X 0.45	1	Helicoil	2093-2.5	https://www.motionindustries.com/productDetail.jsp?sku=01549996	32.60	Metric Tap	
	M3	1	Kodiak	KTC210846	https://www.amazon.com/Kodiak-Cutting-Tools-KCT210846-Threads/dp/B007BTQ9IU?ref_=fsclp_pl_dp_4	13.29	Metric Tap	
	M12 X 1.5	2	National		https://www.amazon.com/CHANNELLOCK-8343-12mm-1-5-Metric/dp/B0002JT0Z0	8.81	Metric Tap	
	M15.2 X 1.41 Pipe Tap	1						Really unique Tap
	M18.6 X 1.41 Pip Tap	1						Really unique Tap

Tools used for the Turners Cube Class

Tool Number	Size	Supplier	Model Number	Link for Purchase	Tool Type	Stick Out	Feeds and Speeds Details	Notes
T1 Superfly	2 in	Tormach		https://www.tormach.com/store/index.php?app=ecom&ns=prodshow&ref=38258&portrelay=1			Aluminum 30 ipm/2500 fpm Steel do not use this tool on steel as it will break the insert	Set for 2in width of cut appoximatly
3/8 Rougher	3/8	Lakeshore	320038XRF	http://www.lakeshorecarbide.com/38rougherfinishersquareendvariable2fluteendmillforaluminumzrn.aspx			http://www.lakeshorecarbide.com/pdf/VFA.pdf	
1/4	1/4	Lakeshore	330014XRF	https://www.lakeshorecarbide.com/14rougherfinishersquareendvariable3fluteendmillforaluminumzrn.aspx			http://www.lakeshorecarbide.com/pdf/VFA.pdf	