

190mm/ 7.50"	Body: 90mm	Section: 35mm	Cap: 65mm
6mm Depth: THRU {tenon cutter guide}		6mm Depth: THRU {tenon cutter guide}	11mm Depth: TBD {Nib w/ shoulder clearance}
8.3mm Depth: 76.2mm {Convertor clearance}		7mm Depth: THRU {housing clearance}	12.2mm Depth: 35.5mm {Cap tap}
9mm Depth: 19mm {Section}		7.5mm Depth: 15.25mm {Housing Main Body}	35/64" (13.89mm) Depth 0.5mm {Cap Relief}
		8.7mm Depth: 0.5mm {Housing Collar}	

Body	<input type="checkbox"/> 230mm Blank	-	<input type="checkbox"/> Trim 90mm of rod stock
	<input type="checkbox"/> Calipers		<input type="checkbox"/> Mark "grain" direction to match alignment to cap + section
	<input type="checkbox"/> Coping saw		
	<input type="checkbox"/> Square carbide tool	2,000 RPM	<input type="checkbox"/> Face
	<input type="checkbox"/> Pilot bit	1,000 RPM	<input type="checkbox"/> Drill pilot hole x ½ way up 60° cone
	<input type="checkbox"/> 6mm drill bit	1,000 RPM	<input type="checkbox"/> Drill 6mm support hole (for tenon cutter tool) x 76.2mm depth
	<input type="checkbox"/> Lubricant		
	<input type="checkbox"/> Calipers	-	<input type="checkbox"/> Mark tenon length 7.37mm ~ 7.62mm
	<input type="checkbox"/> Tenon Cutter	-	<input type="checkbox"/> Set tenon cutter to 12.95mm ~ 13mm
	<input type="checkbox"/> Tenon Cutter	1,000 RPM	<input type="checkbox"/> Cut tenon
	<input type="checkbox"/> Square Carbide Tool	2,000 RPM	<input type="checkbox"/> Chamfer tenon edge
	<input type="checkbox"/> M13x0.8 Die	0 RPM	<input type="checkbox"/> Thread tenon external
	<input type="checkbox"/> Tap lubricant		<input type="checkbox"/> fit to snug <input type="checkbox"/> confirm concentricity <input type="checkbox"/> thread with die marking facing tool <input type="checkbox"/> chase thread (re-run with die marking facing holder) ! DO NOT CROSS THREAD!
	<input type="checkbox"/> Parting tool	2,000 RPM	<input type="checkbox"/> Cut relief
	<input type="checkbox"/> 8.3mm drill bit	1,000 RPM	<input type="checkbox"/> 76.2mm (sized to accommodate standard international convertor)
	<input type="checkbox"/> Lubricant		
	<input type="checkbox"/> 9mm drill bit	1,000 RPM	<input type="checkbox"/> length 19mm to accommodate section
	<input type="checkbox"/> Lubricant		
	<input type="checkbox"/> M10x1 Tap	0 RPM	<input type="checkbox"/> Fit tap to body until snug <input type="checkbox"/> confirm concentricity <input type="checkbox"/> Cut threads
	<input type="checkbox"/> Tap lubricant		
	<input type="checkbox"/> Noga 60° Deburr tool	-	<input type="checkbox"/> Deburr tenon ID

Section	<input type="checkbox"/> 230mm Blank {same as prior}	-	<input type="checkbox"/> Trim 35mm of rod stock
	<input type="checkbox"/> Calipers		<input type="checkbox"/> Mark "grain" direction to match alignment to body + section
	<input type="checkbox"/> Coping saw		
	<input type="checkbox"/> Calipers	-	<input type="checkbox"/> Mark Grip 22mm
	<input type="checkbox"/> Square carbide tool	2,000 RPM	<input type="checkbox"/> Face
	<input type="checkbox"/> Pilot bit	1,000 RPM	<input type="checkbox"/> Drill pilot hole x ½ way up 60° cone
	<input type="checkbox"/> 6mm drill bit	1,000 RPM	<input type="checkbox"/> Drill 6mm support hole (for tenon cutter tool) x through
	<input type="checkbox"/> Lubricant		
	<input type="checkbox"/> Tenon Cutter	-	<input type="checkbox"/> Set tenon cutter to 10mm
	<input type="checkbox"/> Tenon Cutter	1,000 RPM	<input type="checkbox"/> Cut tenon
	<input type="checkbox"/> Square Carbide Tool	2,000 RPM	<input type="checkbox"/> Chamfer tenon edge
	<input type="checkbox"/> M10x1 Die	0 RPM	<input type="checkbox"/> Thread tenon external
	<input type="checkbox"/> Tap lubricant		<input type="checkbox"/> fit to snug <input type="checkbox"/> confirm concentricity <input type="checkbox"/> thread with die marking facing tool <input type="checkbox"/> chase thread (re-run with die marking facing holder) <input type="checkbox"/> ! DO NOT CROSS THREAD!
	<input type="checkbox"/> Parting tool	2,000 RPM	<input type="checkbox"/> Cut relief
	<input type="checkbox"/> 7mm drill bit	1,000 RPM	<input type="checkbox"/> Through hole
	<input type="checkbox"/> Lubricant		
	<input type="checkbox"/> -	-	<input type="checkbox"/> Flip section material in the collet
	<input type="checkbox"/> Square carbide tool	2,000 RPM	<input type="checkbox"/> Face
	<input type="checkbox"/> 7.5mm drill bit	1,000 RPM	<input type="checkbox"/> 15mm
	<input type="checkbox"/> Lubricant		
Section Bock 250	<input type="checkbox"/> 11/32" drill bit	1,000 RPM	<input type="checkbox"/> Just a tad – for Jowo #6 collar
	<input type="checkbox"/> Lubricant		<input type="checkbox"/> {11/32" is approx. 8.7mm}
	<input type="checkbox"/> M7.4x0.5 Tap	0 RPM	<input type="checkbox"/> Fit tap to body until snug <input type="checkbox"/> confirm concentricity <input type="checkbox"/> Cut threads
	<input type="checkbox"/> Tap lubricant		
	<input type="checkbox"/> Jowo #6 Nib in housing	-	<input type="checkbox"/> Degrease/ wipe grime
			<input type="checkbox"/> Dry fit nib
	<input type="checkbox"/> 230mm Blank {same as prior}	-	<input type="checkbox"/> Trim 35mm of rod stock
	<input type="checkbox"/> Calipers		<input type="checkbox"/> Mark "grain" direction to match alignment to body + section
	<input type="checkbox"/> Coping saw		
	<input type="checkbox"/> Calipers	-	<input type="checkbox"/> Mark Grip 23mm

	<input type="checkbox"/> Square carbide tool	2,000 RPM	<input type="checkbox"/> Face
	<input type="checkbox"/> Pilot bit	1,000 RPM	<input type="checkbox"/> Drill pilot hole x ½ way up 60° cone
	<input type="checkbox"/> 6mm drill bit	1,000 RPM	<input type="checkbox"/> Drill 6mm support hole (for tenon cutter tool) x through
	<input type="checkbox"/> Lubricant		
	<input type="checkbox"/> Tenon Cutter	-	<input type="checkbox"/> Set tenon cutter to 10mm
	<input type="checkbox"/> Tenon Cutter	1,000 RPM	<input type="checkbox"/> Cut tenon
	<input type="checkbox"/> Square Carbide Tool	2,000 RPM	<input type="checkbox"/> Chamfer tenon edge
	<input type="checkbox"/> M10x1 Die	0 RPM	<input type="checkbox"/> Thread tenon external
	<input type="checkbox"/> Tap lubricant		<input type="checkbox"/> fit to snug <input type="checkbox"/> confirm concentricity <input type="checkbox"/> thread with die marking facing tool <input type="checkbox"/> chase thread (re-run with die marking facing holder)
			<input type="checkbox"/> ! DO NOT CROSS THREAD!
	<input type="checkbox"/> Parting tool	2,000 RPM	<input type="checkbox"/> Cut relief
	<input type="checkbox"/> 7.3mm drill bit	1,000 RPM	<input type="checkbox"/> Through hole
	<input type="checkbox"/> Lubricant		
	<input type="checkbox"/> -	-	<input type="checkbox"/> Flip section material in the collet
	<input type="checkbox"/> Square carbide tool	2,000 RPM	<input type="checkbox"/> Face
	<input type="checkbox"/> 7.5mm drill bit	1,000 RPM	<input type="checkbox"/> 18.25mm (MAX)
	<input type="checkbox"/> Lubricant		
	<input type="checkbox"/> 11/32" drill bit	1,000 RPM	<input type="checkbox"/> 0.5mm
	<input type="checkbox"/> Lubricant		
	<input type="checkbox"/> M7.9x0.6 Tap	0 RPM	<input type="checkbox"/> Fit tap to body until snug <input type="checkbox"/> confirm concentricity
	<input type="checkbox"/> Tap lubricant		<input type="checkbox"/> Cut threads
	<input type="checkbox"/> Bock 250 #6 Nib in housing	-	<input type="checkbox"/> Degrease/ wipe grime
			<input type="checkbox"/> Dry fit nib
Cap	<input type="checkbox"/> 230mm Blank {same as prior}	-	<input type="checkbox"/> Mark "grain" direction to match alignment to cap + section
	<input type="checkbox"/> Calipers		<input type="checkbox"/> With nib, section, and body assembled, measure from shoulder to nib tip – Bore depth ①
	<input type="checkbox"/> 11mm drill bit		<input type="checkbox"/> Mark "bore depth ①" {55mm} on 11mm drill bit
	<input type="checkbox"/> 11mm drill bit	1,000 RPM	<input type="checkbox"/> Bore depth ①
	<input type="checkbox"/> Lubricant		
	<input type="checkbox"/> 12.2mm drill bit	1,000 RPM	<input type="checkbox"/> 36mm
	<input type="checkbox"/> Lubricant		
	<input type="checkbox"/> 35/64" drill bit	1,000 RPM	<input type="checkbox"/> 0.5mm for thread relief

Body	Brad Point		
	<input type="checkbox"/> Noga 60° Deburr tool	-	<input type="checkbox"/> Deburr tenon ID
	<input type="checkbox"/> M13x0.8 Tap	0 RPM	<input type="checkbox"/> Fit tap to cap until snug <input type="checkbox"/> confirm concentricity <input type="checkbox"/> Cut threads 3 full turns + 1/8th turn
	<input type="checkbox"/> Tap lubricant		
	<input type="checkbox"/> Body Mandrel	2,000 RPM	<input type="checkbox"/> Install body material onto the body mandrel and mount into a collet chuck
	<input type="checkbox"/> Pilot bit		<input type="checkbox"/> Drill 60° pilot
	<input type="checkbox"/> Lubricant		
	<input type="checkbox"/> Live center	-	<input type="checkbox"/> Install live center and fit to snug
	<input type="checkbox"/> Negative rake round carbide tool	2,000 RPM	<input type="checkbox"/> Shape pen body <input type="checkbox"/> Remove live center and shape tail
	<input type="checkbox"/> 400grit	1,000 RPM	<input type="checkbox"/> Wet sand body <input type="checkbox"/> MicroMesh
Section	<input type="checkbox"/> MicroMesh		
	<input type="checkbox"/> water		
	<input type="checkbox"/> Blue Shop Towel	-	<input type="checkbox"/> Remove all water
	<input type="checkbox"/> Magic Juice	3,000 RPM	<input type="checkbox"/> Step through each of 6 magic juice polishing solutions by applying to blue shop towel and applying to work piece
	<input type="checkbox"/> Blue Shop Towel		
	<input type="checkbox"/> Section Mandrel	2,000 RPM	<input type="checkbox"/> Install section material onto the section mandrel and mount into a collet chuck
	<input type="checkbox"/> Negative Rake Round Carbide Tool		<input type="checkbox"/> Shape section
	<input type="checkbox"/> 400grit	1,000 RPM	<input type="checkbox"/> Wet sand body <input type="checkbox"/> MicroMesh
	<input type="checkbox"/> MicroMesh		
	<input type="checkbox"/> water		
Cap	<input type="checkbox"/> Blue Shop Towel	-	<input type="checkbox"/> Remove all water
	<input type="checkbox"/> Magic Juice	3,000 RPM	<input type="checkbox"/> Step through each of 6 magic juice polishing solutions by applying to blue shop towel and applying to work piece
	<input type="checkbox"/> Blue Shop Towel		
	<input type="checkbox"/> calipers	-	<input type="checkbox"/> Measure total bore depth <input type="checkbox"/> Mark external portion of cap <input type="checkbox"/> Second Mark an additional ~3mm for cut line
	<input type="checkbox"/> Section Mandrel	2,000 RPM	<input type="checkbox"/> Install section material onto the section mandrel and mount into a collet chuck
	<input type="checkbox"/> Coping saw		<input type="checkbox"/> Cut excess cap material
	<input type="checkbox"/> Negative Rake Round Carbide Tool		<input type="checkbox"/> Shape section
	<input type="checkbox"/> 400grit	1,000 RPM	<input type="checkbox"/> Wet sand body <input type="checkbox"/> MicroMesh
	<input type="checkbox"/> MicroMesh		
	<input type="checkbox"/> water		
	<input type="checkbox"/> Blue Shop Towel	-	<input type="checkbox"/> Remove all water

- ☐ Magic Juice
- ☐ Blue Shop Towel

3,000 RPM

- ☐ Step through each of 6 magic juice polishing solutions by applying to blue shop towel and applying to work piece

Floats Slow 2022

Drill	Inch	mm
A	0.234	5.94
B	0.238	6.05
C	0.242	6.15
D	0.246	6.25
E	0.250	6.35
F	0.257	6.53
G	0.261	6.63
H	0.266	6.76
I	0.272	6.91
J	0.277	7.04
K	0.281	7.14
L	0.29	7.37
M	0.295	7.49

N	0.302	7.67
O	0.316	8.03
P	0.323	8.20
Q	0.332	8.43
R	0.339	8.61
S	0.348	8.84
T	0.358	9.09
U	0.368	9.35
V	0.377	9.58
W	0.386	9.80
X	0.397	10.08
Y	0.404	10.26
Z	0.413	10.49

Inch Fraction	Inch Decimal	Metric (mm)
1/64	.0156	0.397
1/32	.0312	0.794
3/64	.0469	1.191
1/16	.0625	1.587
5/64	.0781	1.984
3/32	.0937	2.381
7/64	.1094	2.778
1/8	.1250	3.175
9/64	.1406	3.572
5/32	.1562	3.969
11/64	.1719	4.366
3/16	.1875	4.762
13/64	.2031	5.159
7/32	.2187	5.556
15/64	.2344	5.953
1/4	.2500	6.350
17/64	.2656	6.747
9/32	.2812	7.144
19/64	.2969	7.540
5/16	.3125	7.937
21/64	.3281	8.334

11/32	.3437	8.731
23/64	.3594	9.128
3/8	.3750	9.525
25/64	.3906	9.922
13/32	.4062	10.319
27/64	.4219	10.716
7/16	.4375	11.112
29/64	.4531	11.509
15/32	.4687	11.906
31/64	.4844	12.303
1/2	.5000	12.700
33/64	.5156	13.097
17/32	.5312	13.494
35/64	.5469	13.891
9/16	.5625	14.288
37/64	.5781	14.686
19/32	.5937	15.081
39/64	.6094	15.478
5/8	.6250	15.875
41/64	.6406	16.272
21/32	.6562	16.669
43/64	.6719	17.065

11/16	.6875	17.462
45/64	.7031	17.859
23/32	.7187	18.256
47/64	.7344	18.653
3/4	.7500	19.050
49/64	.7656	19.447
25/32	.7812	19.844
51/64	.7969	20.241
13/16	.8125	20.637
53/64	.8281	21.034
27/32	.8437	21.431
55/64	.8594	21.828
7/8	.8750	22.225
57/64	.8906	22.622
29/32	.9062	23.019
59/64	.9219	23.416
15/16	.9375	23.812
61/64	.9531	24.209
31/32	.9687	24.606
63/64	.9844	25.003
1	1.000	25.400

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