



## Introduction

These pages are what I use for step by step guidance for making a Soren Berger type scoop. The intent is to identify procedures in an orderly fashion that will result in a finished scoop. Although aimed at creating the off centered handle that is characteristic of this scoop, the procedure can be easily modified to serve as guidance for scoops in general.

Measurements are approximate for create a 1 ½ - 4/3 in scoop with a 3-inch handle.

Included are several links to web articles and You Tube videos for further reference and clarification.

## Initial Layout

1. Blank- length 2x diameter plus 1.5 inches (approx. 6-7 inches overall)
2. Mount blank between centers. Scoop (sphere) at headstock. Handle at tailstock.
3. Turn blank to cylinder
4. ***Insure tailstock end is square***
5. At headstock turn ¾" diameter tenon. The tenon length can be cut to expose best wood for the scoop. This will be the left edge of the sphere. That edge should be a square as possible,
6. DO NOT turn any tenon at tailstock. A square flat end is needed for offset points

## Turning the Scoop Sphere

### Method#1- Freehand/Octagon

7. Set calipers to the diameter of the cylinder.
8. From the headstock (left) edge of the cylinder (step #5) use calipers to mark right edge of scoop sphere
9. At mark and towards the tailstock , create a narrow tenon leaving at least ¾" tenon.
10. Expand tenon (1/2") towards tailstock to provide space for rounding the scoop.
11. Mark center midpoint of scoop sphere. Mark 2 lines between midpoint and left/right edge of sphere. For better accuracy use the worksheet (link is in the 6<sup>th</sup> paragraph) provided by Allen Stratton on his website at <http://www.aswoodturns.com/2015/07/cedar-scoop/>
12. You should three lines in top of sphere cylinder
13. Using last measurement mark a reference from top edge down each side. You may have to widen and reduce handle-side tenon. Be careful not to reduce tenon more than necessary or it may break while turning the handle.
14. Cut a straight line between the top (left and right lines) to the side reference lines.
15. You will have an octagon shape.
16. Round over each side to form a sphere. Cut as smooth as possible
17. Use a copper coupling to determine high points, refine surface. A scraper or wing of a gouge as a scraper works well for smoothing high points.
18. Put a strip if sandpaper on end of coupling and sand out irregularities.
19. Sand sphere to final grits. This is a final sanding for the sphere.

### Method#2 using shadow template- David Reed Smith

20. This is a novel and easy approach to turn a sphere. Complete instructions including a YouTube video are on David's website.
21. <http://www.davidreedsmith.com/Articles/ShadowSphereJig/ShadowSphereJig.htm>
22. Video only- <https://www.youtube.com/watch?v=1oMMIoARL4> 5-min

### Method#3- Sphere Template- David Reed Smith

23. Dave has instructions and a paper template to measure layout lines for turning a cylinder to a 16-sided sphere. This is how Soren Berger approaches spheres, but without a \$70 special caliper.
24. <http://www.davidreedsmith.com/Articles/ScoopOrnament/SphereTemplate/SphereTemplate.htm>



## Woodworkers of Central New York, Inc.

### Soren Berger Type Scoop Demonstration – Setup Notes

Demonstration by Dick Hoblitzell at the June 11, 2018 Meeting

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#### Method#4 Soren Berger Calipers

25. These calipers take much of the guesswork from turning a sphere, but at \$70- pricey.
26. Website- <https://sorenberger.co.nz/>
27. You Tube- Soren Berger- <https://www.youtube.com/watch?v=R4s5LziiS08> 11-min

#### Method#5 AAW Forum Setting Spring Calipers

28. This AAW forum post by Dennis Gooding, explains drawing a paper template for setting spring calipers via a template which is included in the post.
29. <http://www.aawforum.org/community/index.php?threads/simple-aid-for-turning-spheres-without-a-jig.12187/>

### Turning the Handle

#### First 3/8" offset point- scoop handle

30. Mark length of the handle on the cylinder.
31. Determine the **top orientation** of the scoop to allow for best grain pattern.
32. Set tailstock center 3/8" towards **top**.
33. Reduce/taper handle with a gentle cove toward the sphere.
34. Cut a bead approx. 1/8" - 1/4" from sphere, leaving a small shoulder between sphere and the bead.
35. Cut a shallow vee groove on the shoulder at the sphere. Do not go too deep. This is the weakest point of the scoop and is subject to breaking if the groove is too deep.
36. Sand smooth to final grits. This is a final sanding for the first offset.

#### Second 3/8" offset point- handle back and finger groove

37. Set tailstock center 3/8" again towards **top** of the scoop
38. Reduce **back** of handle to approximately 3/4 of scoop diameter
39. Round back of handle so there is no flat around top edge
40. Cut cove to form a finger groove
41. Sand smooth to final grit. This is a final sanding for the second offset.

### Remove from centers

42. Waste away tenons at each end
43. Remove scoop and cut off both tenons
44. Sand both ends to final grits
45. You should now have a scoop that has not been hollowed.

### Hollow scoop

46. **This is a delicate process, do not try to hog scoop to remove material.**
47. Chuck scoop in jaws. See links below for chucking ideas.
48. Locating the handle in or out from the chuck determines the angle of the handle to the scoop opening.
49. Cut a small divot in the top of the sphere to start the drill hole.
50. Drill pilot hole to leave 1/4" from bottom
51. **Be aware of handle/tool rest clearance**
52. **Gently** cut top of scoop to form a flat
53. Flat should go up to the bead in the handle (step #34)
54. Hollow interior of scoop (Light cuts)
55. Sand interior to final grits

### Finishing

56. Remove scoop
57. Sand any sharp edges to final grits
58. Apply oil finish
59. Allow to dry and buff if desired.



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## REFERENCES

### Berger scoop – Series of 7 videos approx. 10min each

Bob Hamilton <https://www.youtube.com/watch?v=-ASmtx-hvVM&list=PLCF1666C2CD6D35EB>

Series is somewhat tedious, but provides a very clear and detailed instruction of the entire process. The making of a chuck is in video #5

### How To: Turn A Perfect Sphere- The Doctors Woodshop- 14 min

<https://www.youtube.com/watch?v=2VhEjgeRIFg>

Explains Berger calipers and associated geometry, and DIY hole saw roundness tool/scrapper.

### Woodturning One Scoop After Another- 7 min

Allen Stratton As the Wood Turns – scoop with tenon for vicmarc with shark jaws

[https://www.youtube.com/watch?v=r\\_aTc-9eFIE](https://www.youtube.com/watch?v=r_aTc-9eFIE)

### Turning a wooden scoop on the lathe- 7 min

<https://www.youtube.com/watch?v=QBugnYLPXdM>

Shows skew work, and simple wood jaws attached to a scroll chuck

### SIMPLE AID FOR TURNING SPHERES WITHOUT A JIG

Discussion in 'Tutorials and Tips' started by Dennis J Gooding, Jun 28, 2016.

<http://www.aawforum.org/community/index.php?thread/s/simple-aid-for-turning-spheres-without-a-jig.12187/>

Instructions for drawing a template to set calipers for 8 and 16 sided spheres.

### Turning a wooden Sphere on the Lathe- 16 min

Sam Angelo, WYOMINGWOODTURNER

[https://www.youtube.com/watch?v=4HvT\\_ub8alo](https://www.youtube.com/watch?v=4HvT_ub8alo)

Nice demo of freehand turning of a sphere

## Other Scoops

### Woodturning Oval Bowl Scoop With New "Scoop" Chuck- 8:26 min

Allen Stratton As the Wood Turns

<https://www.youtube.com/watch?v=dOBHhuZsB5w>

### My Home Made Scoop Chuck For Difficult Mounts- 4:58 min

Allen Stratton As the Wood Turns

<https://www.youtube.com/watch?v=-UXTFCAaokU>

### Woodturning One Scoop After Another- 7:25 min

Allen Stratton As the Wood Turns

[https://www.youtube.com/watch?v=r\\_aTc-9eFIE](https://www.youtube.com/watch?v=r_aTc-9eFIE)

## Chucking

### GPW 10 - Turned Spoon 13min

GP Woodworks

<https://www.youtube.com/watch?v=Y5Mo5r1B9z0>

Skew chisel and half round sphere template

### How to Turn a Raffan Style Scoop- 20min

Mike Peace Woodturning

<https://www.youtube.com/watch?v=QskYxx47u3g>

Simple, open-ended scoop

### How to Make A Wooden Scoop on the lathe / Woodturning Project- 23 min

Carl Jacobson

<https://www.youtube.com/watch?v=ijgm9gmtHhNo&t=153s>

Straight handled scoop using simple "C"-shaped chuck

### Jig for making one-piece spoons on the lathe- 8 min

Carl Jacobson

<https://www.youtube.com/watch?v=5TF2h4bAys4>

Shows construction of a ring chuck

### How to Turn a Coffee Scoop- 44 min

Mike Peace Woodturning

[https://www.youtube.com/watch?v=mpcv\\_qTW4AY&t=60s](https://www.youtube.com/watch?v=mpcv_qTW4AY&t=60s)

Shows construction of a donut chuck for scoops starting at 38:50

### Maple Scoop with Lyle Jamieson- 14 min

Carl Jacobson

<https://www.youtube.com/watch?v=9bBPEZfsKww&t=13s>

Scoop is nothing special, but a 2 x4 in its side is used as a jam chuck= interesting.