

# Basic Round Donut-Shaped Bead

A beadmaking tutorial by Laura Sparling



## Introduction

There are many bead making tutorials out there but not many of them show you how to make a basic round, donut-shaped bead. This tutorial is my take on the subject.

I teach a lot of people how to make beads and when I teach total beginners I tell them that in lampworking making a basic round bead is one of the hardest things to master. There is so much to learn and so much to remember.

I've decided to write down all I know and all the advice I have when it comes to making a basic round bead. This will hopefully be useful for beginners and intermediate beadmakers alike. I've taught intermediate beadmakers who can't make consistently round beads. I'm hoping that my waffle (and be warned, there's lots of it) will help you tame that molten glass.

In this tutorial I'll show you how I make a round bead in detailed step-by-step sections and I'll show you how to get consistently-sized beads. There is also a troubleshooting section which should help you with any wonky bead issues you may have.

## Getting Started

When you're learning how to make beads it's great to experiment with all the different glasses in all their wondrous colours. However, some of them lend themselves to particular techniques better than others. I find that Effetre opaque blues and greens and Effetre plain black are great glasses to use first of all. They're not too stiff but not too soupy either. Something like Effetre dark ivory or pink is a little too gloopy. It's best to master the technique first, learn from it and then apply that knowledge to different glasses.

Mandrel size is important too. I think beginners do best with 2.4mm (3/32) mandrels as they're not too skinny but not too heavy. You'll find that as you hone your beadmaking skills your beads will become tighter, neater and smaller and you'll know when it's time to move down a size to the 1.6mm (1/16) mandrels.



For this tutorial I'm using a 2.4mm mandrel and Effetre black glass. My torch is a Carlisle Mini CC.

## A Word About Your Torch

This making beads malarkey is known as lampwork and sometimes torchwork. Many people assume that the main focus in this craft is the torch. Well, personally I don't think it is. Your torch is obviously an important tool but that's exactly what it is - a tool. It's a lampworking tool just like a marver, a press, a poker or tweezers. The main focus of lampworking is the glass itself and to manipulate it we use a range of things. The flame is just one of them.

Beginners tend to heat glass way too much and there's nothing wrong in that - as I say, when we start out we all automatically assume that having the glass in the flame all the time is what we need to be doing. But the moment you realise that you don't need to keep the glass in the flame at all times is when that light bulb switches on in your head and your beadmaking will begin to make more sense to you.

## And A Word About Mandrel-turning

It's very important that you choose a direction in which to turn your mandrel and that you stick with that direction. Don't roll the mandrel back and forth. Mandrel-turning is a skill in itself and it takes a bit of practice to get the knack of it. I'm right-handed but I use my left hand and I turn the mandrel away from me.



The picture on the left shows how I would hold the mandrel whilst making a bead and the one on the right is a view of what my fingertips are doing on the other side. The thumb and forefinger do the turning and the other three fingers steady the mandrel.

Don't be frightened to hold the mandrel up near the bead release part. You need to in order to produce a smooth turning motion. The same goes for the glass rod. Hold it as near towards the end as you can without it being uncomfortably hot on your fingers but obviously, please don't burn yourself! You have more control this way. If you're writing a letter you don't hold the end of the pen, you hold it near to the nib because you have more control that way. The same goes for the mandrel and glass rod.

Whilst making beads it is imperative that you keep your mandrel horizontal and turning at all times. Please don't be tempted to tip it up vertically to marvel at what you've created as it'll all go wrong. More on that later .....

## My Yoda Bit

Alright, I won't talk in jumbled-up Yoda-style sentences but when I say what follows to my students I always feel like a wise old Jedi Master passing on a valuable nugget of advice to my Padawan learner.

I make beads slowly. I know I do. If I can make twelve decent beads in one six hour torch session then I've had a fantastic and productive day and I'm pleased with myself. Okay, I would never win prizes for speed but I like to think that the care I take in my work really shows. All of the beads I sell are round, even, consistently-sized, not at all lopsided and most importantly they have neat, smooth bead holes.

So why do I make beads at such a pace?

The answer is simple. Heat a glass rod and watch how the molten glass moves. It moves slowly, gracefully and smoothly. In order to work with it, you have to do the same. Beadmaking isn't a race. It isn't about producing a kiln full of beads every time you sit at your torch. You should find it relaxing and enjoyable. And anyway, the glass won't let you rush it. As I say, to get the best results you need to work in harmony with the glass.

There. Yoda bit over. Now to the beadmaking!

## Making A Basic Round Donut-Shaped Bead

### Step 1 - Heating Things Up



Heat a mandrel to a soft orange glow. This is important. If the mandrel isn't glowing orange then it's not warm enough. If the mandrel isn't warm enough when the hot glass comes into contact with it the glass will contract slightly and create tiny air bubbles in your bead.

While you're heating your mandrel also warm the tip of your glass rod. You're looking to heat a pea-sized blob of glass.

### Step 2 - The Initial Wrap



The key to neat bead holes (and by neat I'm referring to the nice 'dimpled' area around the holes as opposed to sharp pointy ends) is to make the initial the first wrap of glass much narrower than the desired width of the final bead. Here, my demo bead is going to end up at about 13mm diameter. My initial wrap is approximately 5mm diameter.

To achieve a small, narrow wrap, touch the molten glass to the warm mandrel very lightly. When I apply glass I keep my right hand (the one holding the glass rod) still and I gather the molten glass from it by turning the mandrel away from me.



You should end up with a tiny, skinny bead like the one above.

### Step 3 - Adding More Glass



Let the glow come out of the tiny bead you've just made. If the bead is orange it means it's hot and the glass you've just applied will move and drag around with the next wrap that you're about to add.

When I add glass I bring the bead above the flame to do so. That way I'm not working right in the flame and the bead won't get too hot. It all goes back to what I was saying at the beginning about the torch and knowing when to work in the flame and when not to.

Add more glass to your rough disc shape allowing the bead to cool down in between wraps. As you finish a wrap, pull the glass rod away from the bead while it's still molten and let the flame 'cut' the glass from the bead.



You should end up with something like the bead above. No, it's not particularly neat and tidy and no, it's certainly not a donut shape but believe me when I say that if you have enough glass in the right place on the mandrel then your bead will eventually be round.

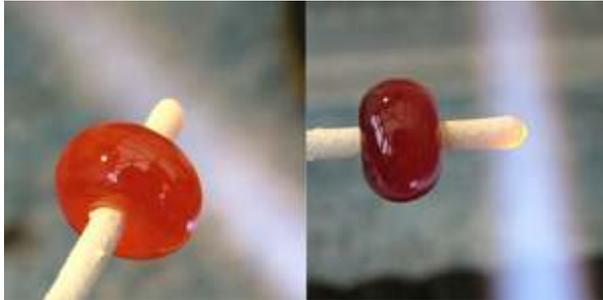
### Step 4 - Things Are Hotting Up (And Cooling Down)



Now you need to put your bead back into the flame and heat it (while keeping that mandrel horizontal and turning slowly and steadily) to a nice even glow. The glass will start to move and the disc will condense down into a rounder bead. As it does this, the glass will start to slump over at the edges which is what creates the lovely dimpled bead holes that won't go on to cut beading wire and people's fingers.

#### Step 4 (Continued)

Heat slowly and turn the mandrel slowly and if things get too hot bring the bead out of the flame, keeping it horizontal and turning, and let the glow come out of it.



This is a very important stage. Just bringing the bead into slightly cooler air makes it round up quite a lot.

And did I also say that it's very important that you keep that mandrel horizontal and turning?!

If the bead isn't quite round enough, put it back into the flame and repeat this stage again.

You shouldn't need to use any other tools to make a round bead. You just need heat control and gravity. This donut shape is the shape that the glass naturally wants to be because molten glass always pulls to the centre of its mass. You've just got to go with what it wants.

#### Step 5 - Ta Da!



Once you're happy with your shape bring the bead out of the flame, keeping it horizontal, keeping it turning, and let the glow disappear completely. Then it's ready to place into a waiting warm kiln or into your fibre blanket or vermiculite.

## How To Make Beads The Same Size

Many people ask me how I make sure that the beads in a set are all roughly the same size as each other.

Well, here is my very non-technical answer to the question.

Bead gauges.



These are round beads that I've left on their mandrels. I've removed most of the bead release and cut some of the mandrel off to make them less bulky. I keep them in a rack (that's why I've bent the mandrel ends into hook shapes) and I use them as a size guide when making sets of beads.



When I'm making a set of beads I choose what size I'd like the base of each one to be. I make the base bead by eye and when I've rounded it up I hold it up next to my chosen bead gauge. If I need more glass I add it around the centre of the bead, reheat, round up and measure again. Then I go ahead and decorate the bead, safe in the knowledge that size-wise my beads will more or less match. This is particularly useful when making earring pairs.

If I've made my initial base bead too big I can pluck some of the glass off to reduce its size. Or alternatively I turn it into another bead altogether and it normally ends up in my Lonelies jar.

## **Troubleshooting When Beads Go Wonky**

It happens. I still have days when I make wonky beads. There are reasons why they're wonky and this section is about the three main types of Bead Wonkiness and how you can avoid it.

### **Number 1 - The Lemon**



#### **Features**

- Lemon-shaped
- Pointy ends
- Not really very bead-shaped

#### **Reasons For Wonkiness**

This shape happens for a couple of reasons. The first one is that the bead is too wide. The initial wrap was either way too big or the glass has got too hot and glooped about all over the place resulting in the bead spreading across the mandrel too much.

This brings me to the second reason for the shape. There isn't enough glass on the mandrel. Remember how I said that you start with a much narrower wrap in relation to the desired width? Well, imagine how much glass you would need to add in order to make this bead round and neat. Yes, it'd be lots. You could of course do this but be prepared for a finished bead the size of a golf ball.

## Number 2 - The 'Look What I Made!'



### Features

- One really pointy sharp end
- One really dimpled end
- A general pear shape to the bead

### Reasons For Wonkiness

This is what happens when you get all enthusiastic and excited after making a reasonably round bead and who can blame you?! You take it out of the flame, tip the mandrel vertically and grin happily at the glass lovely that you've just created. All the time you're doing this the hot glass under the seemingly cool surface is moving about following gravity and flopping downwards to form this non-round shape.

This shape also occurs if you don't keep your mandrel horizontal while making the bead. The glass flows downhill and gathers into a pear-shaped bead.

## Number 3 - The Lopsider



### Features

- Reasonably round
- One narrow side
- One fatter side

### Reasons For Wonkiness

This easily-rectifiable wonkiness is due to mandrel turning. If you momentarily stop on a turn then the glass follows gravity (are you noticing a pattern here?) and gloops. Then as you recommence with the turning you'll notice a 'bump' in the turn. Just reheat the bead to an even glow, get the glass moving and round it up. You can also add more glass to the narrower side to help speed this process up.

## **The End**

So that's all the stuff I know and that I teach all of my students about making round beads. I do hope you've found it useful. As I said at the start there is so much to remember and so much to learn in this seemingly simple process but once you've mastered it you'll be off. You can add frit, dots, stringer and more.

The possibilities are endless!



## **Thank You**

Thank you for purchasing my Basic Round Bead tutorial. I hope you've enjoyed it.

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If you have any questions please send me an email at [laura@beadsbylaura.co.uk](mailto:laura@beadsbylaura.co.uk).

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