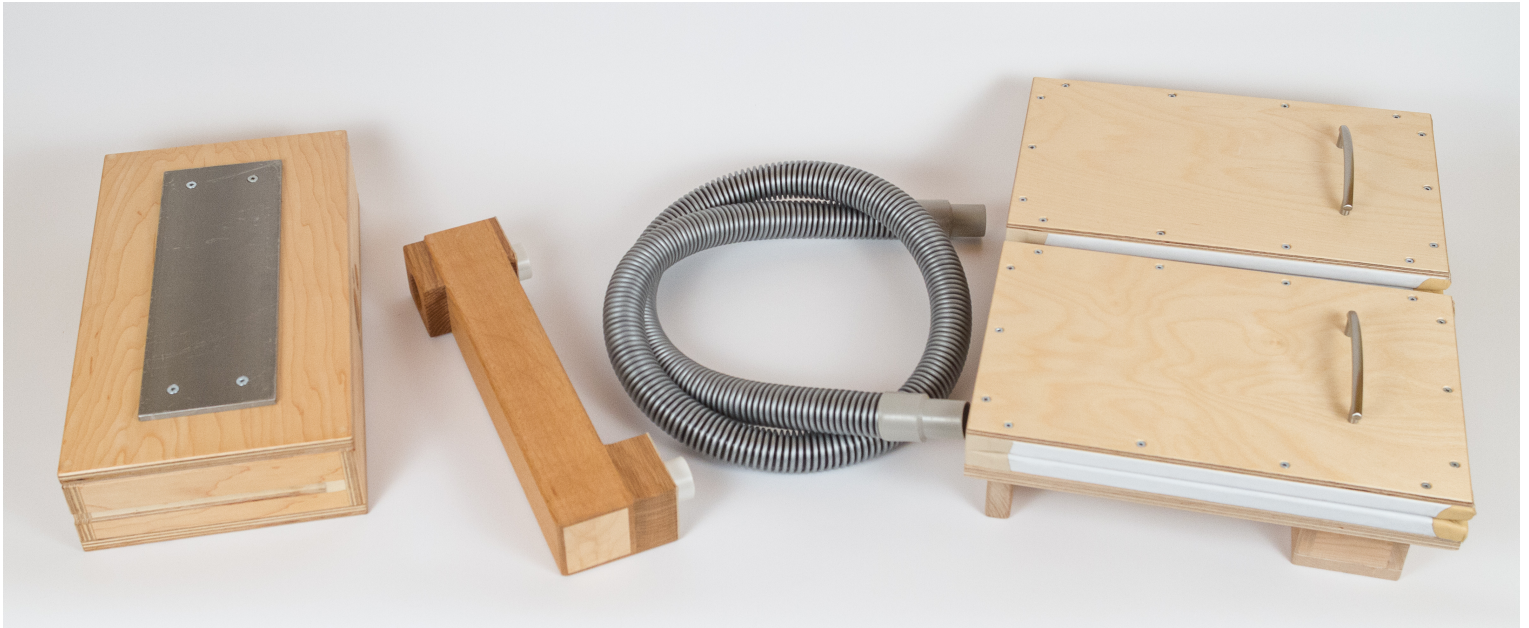


Once the FRAME of the organ is assembled and all of the other components have been added, it will be time to add the wind. Until then...

1. What you will need:



- Reservoir bellows
- Wind trunk
- Hose
- Feeder bellows
- Spare, tunable pipe (not pictured)

2. What you need to know:

2.1 How to Pump: Practicing your **CALCANT** skills.

- Calcant is the name of the bellow pumper. The calcant needs to pump in ***long, slow arcs, with their hands always moving and alternating.*** (Think of the motion of your feet when pedaling a bicycle)
- Using the non-slip pad under the feeder bellows, how smoothly can YOU pump?
- If the organist starts playing ***many*** notes at a time, how would you need to change your pumping? Why?
- Keep in mind for later: When the wind system is installed in the organ frame, you will want to avoid pumping so much that the top of the reservoir bellow hits the frame.

2. What you need to know: (CONTINUED)

2.2 Why are there two sets of bellows?

- A. Explore the **quality of the pressure** when just the feeder bellows are used. Attach one end of the **hose** to the open hole on the underside of the **feeder bellows**. Feel the wind at the end of the hose while a friend pumps.

A



- B. Explore **the quality of the pressure** when the **hose** is attached from the **feeder bellows** to the **wind trunk** and the bottom of the trunk is attached to the **reservoir bellows**. Feel the quality of the wind coming out at the top of the wind trunk.
(You'll need to provide some resistance at the top with another hand.)

B

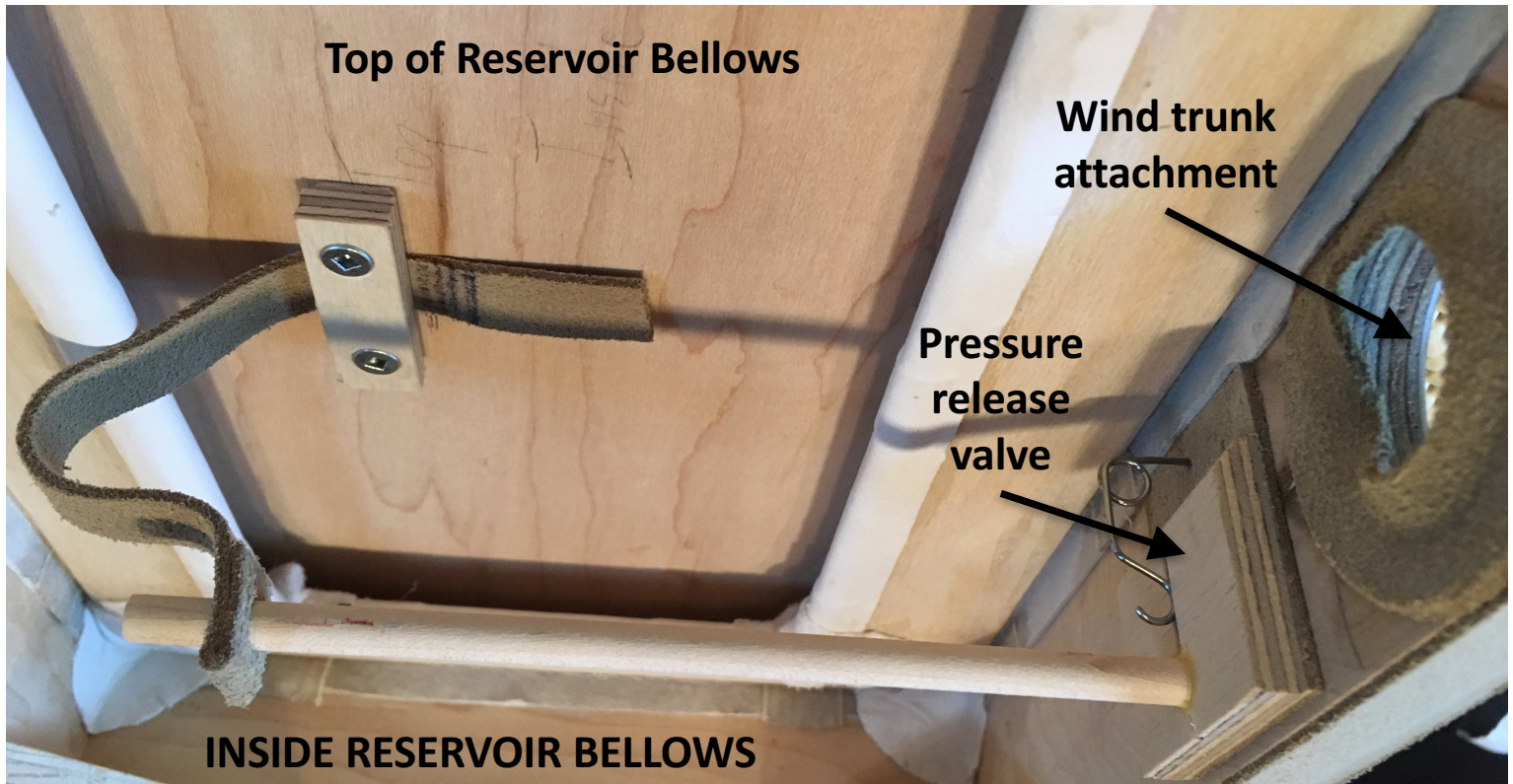


- WHICH assembly configuration provided SMOOTHER wind or more constant pressure, **A** or **B**? Why?
- Why might smooth pressure be important in making music?

2. What you need to know: (CONTINUED)

2.3 What is happening *INSIDE* the reservoir bellows?

- If your organ is equipped with a window into the reservoir bellow, take a peek & compare to this image.



- **Examine** this inner mechanism.
 - **Hypothesize** about its function.
(ie, *What* do you think it does & *how* does it do it?)
 - When you pump the feeder bellows, what happens to the reservoir bellows? What's happening inside?
 - If this mechanism was not here, what would happen?
- Remember to let the WIND do the work, and *NOT* your fingers!
Please do not push on the pressure release valve.

2.1 Calcanting revisited. Now that you know about the pipe organ's wind system, reconsider your role as calcant. Your skill as a CALCANT is important as the reservoir can only do so much to smooth out the irregular pressure. Once installed in the organ, can you get the top of the reservoir bellow to **hover** without maxing out (going too high) or bottoming out (going too low)?

Last but not least: All the other parts of the organ need to be assembled before you add the wind. But once it is your turn...

3. How to proceed with assembly:



- Slide the reservoir bellows onto the lower rails with the hole facing the back



- Attach the hose to the wind trunk
- Fasten the wind trunk onto the organ
- Which two parts of the organ does the wind trunk connect?
- Use the non-slip pad under the feeder bellows (not pictured)
- Now put your **calcant** skills to use, blow some wind & make some music!!!