

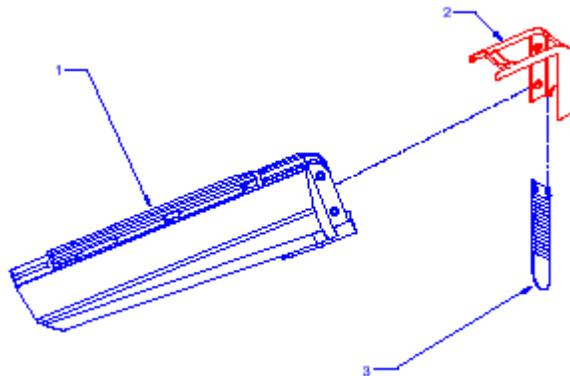
From the MODS found at <http://atog.strongfam.com>

### MOD #1: How do I modify my forward loader to get better flow from loader to magazine?

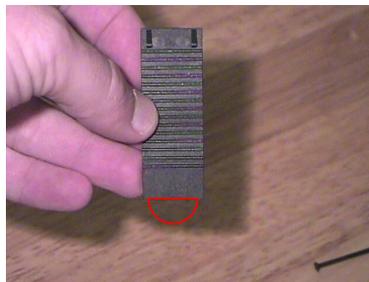
The oval opening in all ATS magazines that allows balls to flow from the forward loader into the magazine used to be round. A while back ATS altered the design of the magazine to make the opening on the magazine oval. The increased size of the whole meant the magazine could more easily accepted balls through that opening. Unfortunately, the round whole on the forward loader has not yet been changed to match. In other words, if you are loading magazines by hand you can enjoy the benefit of the oval magazine opening that will allow you to load faster, but, if you are using forward loaders, you don't get the benefit of the increased size of the magazine's opening. This means that when using the forward loader-to-magazine setup of the AT-85, there is no improved feeding if you are using an unmodified forward loader. Fortunately there is an easy fix.

This mod requires a Dremel rotary tool, or similar rotary tool, a pair of sharp scissors, and a fine toothed bastard file.

**STEP 1:** Disassemble the three parts of the forward loader. Part 1 is called the forward magazine. Part 2 is called the forward magazine cap. And part 3 is called the forward magazine gate.



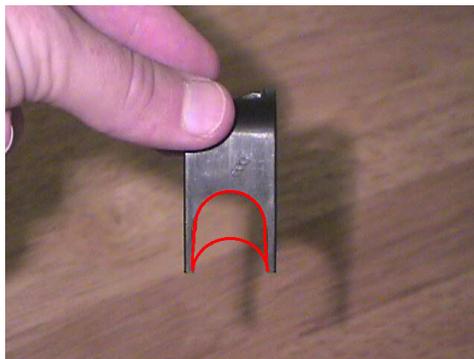
Once the parts are disassembled, use the scissors to cut the half circle shape off the bottom of the forward magazine gate. See the picture below for an example of how much you should remove.



For the next two steps you will need to use the drum sander attachment for your rotary tool. You can use the smaller number 430 or the larger number 440 sander. I used the 440 because it was easier to cut nice smooth curves.



**STEP 2: READ THIS NEXT PART COMPLETELY BEFORE PROCEEDING.** Using the sander, begin enlarging the semicircle at the bottom of the forward magazine cap. Be extremely careful to leave enough material on the edges of the cap to act as guides for the gate. After slightly enlarging the semicircle, reassemble the forward magazine and slide the gate to the fully open position. You want to make the semicircle just big enough so that the bottom of the gate is flush with the top of the semicircle when the gate is in fully opened. Check to see if this is the case. If this is the case go to step 3. If this is not the case, disassemble the pieces and repeat the entire process until you have achieved this goal. For an example of how much material to remove see the picture below.



**STEP 3: READ THIS NEXT PART COMPLETELY BEFORE PROCEEDING.** Reassemble the loader without the gate. Using the cap as a guide, make the opening in the forward magazine the same size as the one on the cap. Be careful not to remove any extra material from the cap. Remove the cap from the forward magazine and use the bastard file to smooth the inside of the forward magazine (be careful not to file through the sidewall). See the picture below to see how much material (outlined in red) I removed from my forward magazine. Clean the inside of the forward magazine to remove all filings and bits of plastic or they will end up in your gun. Reassemble the three pieces and you are finished.



**NOTE:** If you follow the steps above you will end up with an opening in the forward loader that is slightly smaller than the one in the magazine. While it is true that you could make the opening in the forward loader bigger, doing so would require that more material be removed from the gate. This would make it impossible for the gate to retain paintballs in the forward loader even in the full closed position.

**WARNING:** When sanding the plastic hot globs of plastic will be expelled from the sanding location. Please take the necessary precautions to protect yourself and your eyes.