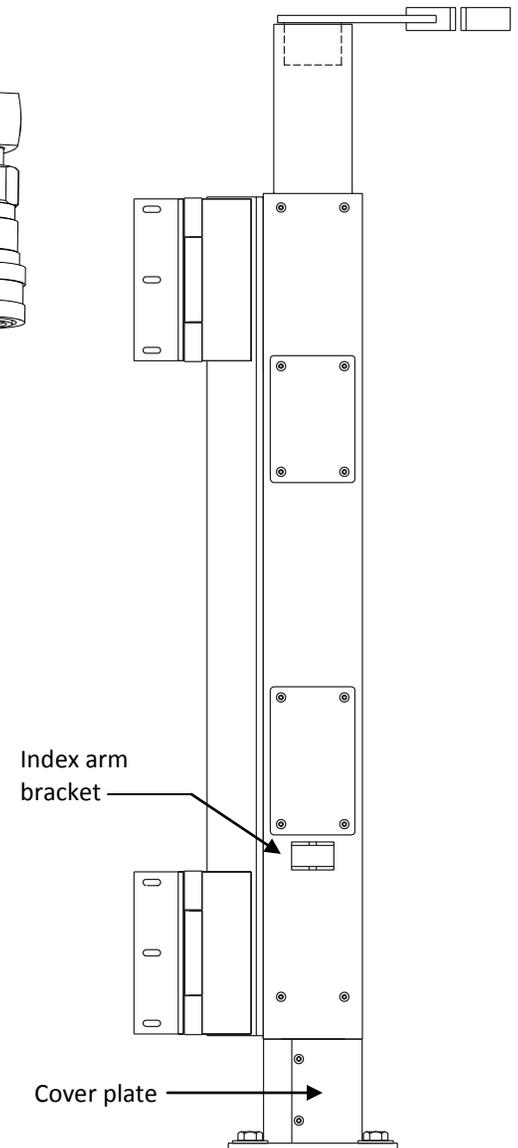
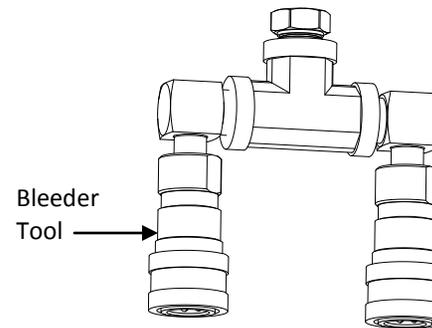


SwingRiser™ Using the Bleeder Tool Assembly

Air trapped in the hydraulic systems of SwingRiser (HRG) operators can cause slow and/or jerky operation. In SwingRiser Twin (HRG 222) systems (two gate panels operating from a single hydraulic supply), air can prevent the two panels from synchronizing.

If these symptoms are appearing in your operator, take the following steps to bleed the air from the hoses between the hydraulic supply and the operator post.

- In SwingRiser Twin systems, both posts must be bled at the same time.
 - The gate will be inoperative during the bleeding process. If traffic needs to pass, remove the index arm and pivot the gate on the mounting hinges manually.
 - **Tools required:**
 - _ 7/32" Allen wrench (for cover plate screws)
 - _ Bleeder tool assembly, refer to the HySecurity *Price Book* for the part number.
A single gate requires one Bleeder tool. A twin gate system requires two Bleeder tools.
 - _ Two electrical jumper cables
1. Move the gate(s) to the CLOSE position.
 2. Turn off power to the hydraulic supply.
 3. Check the oil level in the reservoir and fill it to within ½-inch of the fill hole with HySecurity Uniflow hydraulic fluid (The correct part number is found in the HySecurity *Price Book*.)
 4. Remove the cover plate(s) on the stationary base(s) of the post(s).



5. Separate the quick disconnects. Mark the hoses to make note of which hose connects to which connector in the post - one set should be marked with a red wire tie.
6. Attach the feed hoses from the hydraulic supply to the quick disconnects on the bleeder tool. (On Twin post units bleed both posts together with two bleeder tools.)
7. Jumper out the OPEN and CLOSE Limit Switches on the panel mounted terminal strip in the hydraulic cabinet below the keypad.
8. Determine how long you need to run the pump to completely circulate fluid through the entire system. To do this, estimate the total length of hose running from the pump to the post(s) and back (including any hose coiled up in the pump cabinet). Use the chart below to determine how long to run the pump and bleed air from the hoses.

Operator Type	Pump Circulation Time			
	Single Post (¼-inch hose)	Double Post (¼-inch hose)	Single Post (⅜-inch hose)	Double Post (⅜-inch hose)
SwingRiser 14 (HRG-A)	20 seconds/100 hose ft	10 seconds/100 hose ft	40 seconds/100 hose ft	20 seconds/100 hose ft
SwingRiser 19 (HRG-B)	25 seconds/100 hose ft	12 seconds/100 hose ft	50 seconds/100 hose ft	24 seconds/100 hose ft
SwingRiser 30 (HRG-C)	40 seconds/100 hose ft	20 seconds/100 hose ft	80 seconds/100 hose ft	40 seconds/100 hose ft

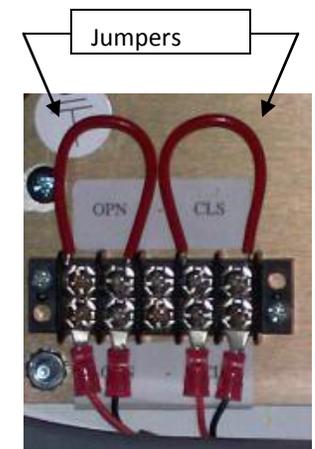
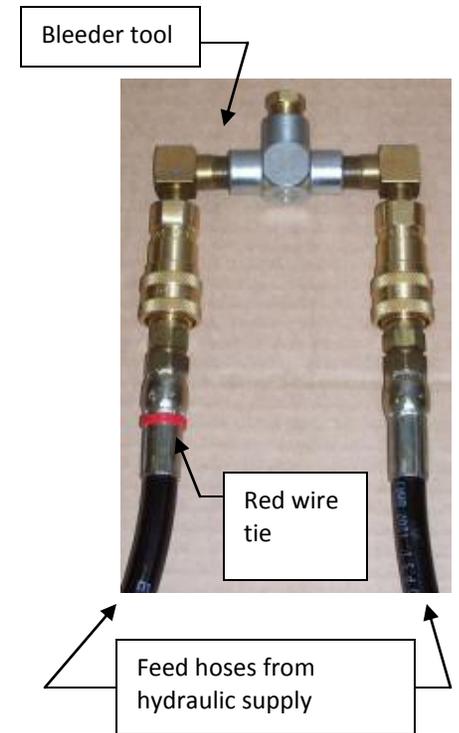
Example: Double post (two posts), each 50 feet away, have 100+ feet of ¼-inch hose **per post** equaling a total of 200+ feet. Using the chart for a SwingRiser 19 (HRG-B), the pump will need to run for at least 24 seconds.

9. Turn on the power to the hydraulic supply.
10. Press OPEN or CLOSE to run the motor and pump hydraulic fluid through the hoses. Run the pump for the length of time shown in the chart.

NOTE: The operator will shut off due to the “maximum run timer” after 1-minute. If needed, press RESET on the keypad and restart the operator (in the same direction) to complete the bleeding process.

When the air has been bled from the hoses, take the following steps:

1. Turn off the power.
2. Remove the Open/Close limit switch jumpers in the hydraulic supply cabinet.



2. Check the fluid level in the reservoir. If it is low, refill to ½-inch below the fill port.
3. Disconnect each bleeder tool assembly and reconnect all hoses in the post(s). Be sure to connect the color-coded sockets to the appropriate color-coded plug.
4. Reinstall the cover plate. Refer to illustration on page 1.
5. If the index arm was disconnected, re-attach it. The spaces between the arm ends and the brackets on the post and gate should be completely filled with washers and the attaching bolts tightened to a minimum of 75 ft-lbs. Refer to the *SwingRiser Installation and Maintenance Manual*.
6. Turn on the power.
7. Test the gate to make sure it opens and closes properly, and then place into service.

NOTE: The above process will remove the air from the hoses, but may leave some air trapped in the cylinder(s). If lagging or sluggish operation persists, cycle the gates several times forcing the air from the cylinder(s) into the hoses, then, repeat the bleeding process above.

