

# **Blocking Valve Replacement Procedure**

## for FlexFast™/FlexFast™ Lite Reservoir

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Document No: FFW-FFX-RES-BVR-EL-1.0-0620 Release Date: June 2020

Within this blocking valve replacement kit (kit no. 614-41469) for FlexFast™/FlexFast™ Lite fluid reservoirs you will find the following items (seen in Figure 1):

- One (1) Argo-Hytos blocking valve
- One (1) Balluff M12 Y cord
- One (1) Lumberg M12 DIN connector
- One (1) Lot of replacement fasteners
- One (1) Installation instruction (begins on Page 3)



Figure 1: FlexFast<sup>™</sup>/FlexFast<sup>™</sup> Lite fluid reservoir with Argo-Hytos blocking valve and associated items.

<u>Note:</u> If you are replacing a Continental Hydraulics blocking valve (discontinued in early 2020), the instructions included with this kit will still be applicable. Read the notice regarding mounting height on Page 2 before proceeding with the instructions.

If you require assistance or clarification, please contact our Service team by emailing <u>service@cntrline.com</u> or calling +1 519-734-0080 (toll free +1 800-268-8184).



# **Mounting Height Differences**

Be aware that there is a difference in mounting height between the discontinued Continental Hydraulics blocking valve and the Argo-Hytos blocking valve, seen in Figure 2. The Argo-Hytos valve sits approximately 40 mm lower on the fluid reservoir.

In certain applications, the 190 mm mounting plate for the fluid reservoir will need to be replaced with a 230 mm mounting plate (kit no. 614-41534) to prevent interference of the Argo-Hytos valve with other hardware. The 230 mm mounting plate can be seen labelled in Figure 1.

Where necessary to prevent interference, ensure you have installed the 230 mm mounting plate before proceeding with the blocking valve replacement.



Figure 2: Mounting height differences between the Continental Hydraulics blocking valve (left) and the Argo-Hytos blocking valve (right).



# **Blocking Valve Replacement Procedure**

Before replacing the blocking valve, review the safety information below.

	This document reflects the requirements for blocking valve replacement as recommended by CenterLine. The information provided does <b>not</b> supersede any local regulatory laws, internal company standards, and other applicable standards (e.g., OSHA).
	Always wear appropriate personal protective equipment as recommended by local regulatory laws, internal company standards, and other applicable standards (e.g., OSHA).
	Before any component replacement procedure is started, the equipment must be put into lockout state.
	De-energize all sources of air and electrical power and ensure the equipment is unable to be restarted while service work is being performed. Improper safety measures may result in personal injury or equipment damage.
IMPORTANT	All electrical connections must be performed by a qualified electrician.

## **Removing the Existing Blocking Valve**

The following procedure describes how to remove an existing Continental Hydraulics or Argo-Hytos blocking valve in preparation for a replacement blocking valve.

- 1. From the HMI, fully retract all cylinders on the FlexFast<sup>™</sup>/FlexFast<sup>™</sup> Lite.
- 2. Following standard service procedures, remove the upper electrodes from all cylinders on the machine.



- 3. Shut off the electrical power to the machine and perform lockout/tagout.
- 4. Shut off the air supply to the machine and perform lockout/tagout.



Failure to shut off energy sources may result in serious injury. Always follow appropriate lockout/tagout procedures as designated by your workplace.



- 5. Following standard service procedures, drain the fluid reservoir.
- Disconnect the existing blocking valve electrically. These steps will differ depending on the brand of blocking valve installed.

#### **Continental Hydraulics:**

a. Unplug the M12 cable connector from the existing blocking valve.

#### Argo-Hytos:

- a. Unplug the split ends of the M12 Y cord from the existing blocking valve (top) and the M12 DIN connector (bottom).
- b. Follow the M12 Y cord behind the fluid reservoir and unplug its common end from the M12 cable connector.
- c. Unplug the M12 DIN connector from the existing blocking valve.
- 7. Remove the four (4) fasteners attaching the existing blocking valve to the fluid reservoir. The existing blocking valve can now be removed.



Left: Continental Hydraulics blocking valve. Right: Argo-Hytos blocking valve.



Left: Continental Hydraulics blocking valve. Right: Argo-Hytos blocking valve.



### Installing the Replacement Valve

The following procedure describes how to install the replacement Argo-Hytos blocking valve. For additional details on electrical connections, including electrical diagram, refer to Figure 3 and Figure 4 on Page 6.

- 1. Ensure the surfaces of the fluid reservoir and replacement blocking valve are clean and free of any debris, and all O-rings are in place. Clean surfaces with a dry cloth if necessary.
- 2. Install the replacement blocking valve onto the fluid reservoir using four (4) fasteners.



- 3. Plug the new M12 DIN connector to the connector located on the lower half of the replacement blocking valve.
- 4. Plug the "1" end of the new M12 Y cord to the new M12 DIN connector.
- 5. Plug the "2" end of the new M12 Y cord to the spool monitoring sensor located on the upper half of the replacement blocking valve.

<u>**Note:</u>** Ensure the "1" and "2" ends are correctly positioned. If the connections are switched, no harm or damage will occur, but the machine will not function.</u>



6. Plug the common end of the new M12 Y cord to the original M12 cable connector to complete the wiring. The replacement blocking valve has now been installed.





#### Figure 3: Image describing connections between the Argo-Hytos blocking valve, associated items, and FlexFast.



Figure 4: Electrical drawing describing connections between the Argo-Hytos blocking valve, associated items, and FlexFast.



### Starting the FlexFast™/FlexFast™ Lite

The following procedure describes how to start and perform maintenance on the FlexFast™/ FlexFast™ Lite after replacing the blocking valve and before resuming welding. These instructions refer only to the cylinder and fluid reservoir connected to the replacement blocking valve.

- 1. Ensure all cylinders are retracted fully as per Step 1 of *Removing the Existing Blocking Valve*.
- 2. Refill the fluid reservoir with clean oil up to the maximum fill line.

<u>Note:</u> Refer to the list of recommended fluids attached to the fluid reservoir or contact our Service team for information (contact information on Page 1).



- 3. Turn on the air supply to the machine, following lockout/tagout procedures.
- 4. Turn on the power to the machine, following lockout/tagout procedures.
- 5. From the HMI, fully extend and retract the cylinder at least ten times. Continue until no air bubbles can be seen in the fluid reservoir.
- 6. Following standard service procedures, install the upper electrode onto the cylinder.



7. Measure the tip force of the cylinder as per normal maintenance procedures. Confirm that it is developing the appropriate weld force. The cylinder is now ready for welding.