

PulseForge Inc.

Instructions Number	291-xxxx-xx
Revision	Null
Effectivity Start-End	
Latest ECO Number	

Assembly Instructions

PF Invent Fill-Drain Kit

BOM Number: N093-00-05

Tools and Supplies Required

- White carboy container, 5-gal, 20 Liter
- Needle-nose pliers
- 5/32-in drill bit
- Center punch
- Step drill bit
- Measuring tape
- 3/8-in Teflon tape
- Poly hose cutter (large)
- Poly flow hose cutter

Parts Referenced

Table 1: Parts Referenced in Assembly Steps

BOM #	Description
240-0055-01	White Carboy 5-Gal, 20 Liter, 9-5/8" X 9-3/4" Base, 1 1 240-0055-01 13-1/2" Heig
SP229-45	Hi-Strength White Nylon Threaded Pipe Fitting 3/4" Male X 3/8" Female, Reducing Hex Bushing
PN091-167	3/8" OD Tube x 3/8" NPTF LIQUIfit™ Male Connector Valve
D218-55	Masterklear Color PVC Tubing Red, 1/2" ID, 3/4" OD, 1/8" Wall Thickness
PD218-138	Single Snap-Grip Nylon Hose and Tube Clamp, 11/16" to 13/16" Clamp Diameter Range
PN091-169	Quick-Disconnect Tube Coupling, Barbed Elbow Plug, 3/8 Coupling Size, for 1/2" Tube ID
250-0071-01	Choose-A-Color Polyurethane Tubing Tinted Blue, .245" ID, 3/8" OD, .065" Wall Thk, SOLD FT
PN021-233	Easy-Install Double Snap-Grip Clamps for Firm Hose and Tube, 3/8" to 13/32" ID
PN091-172	Quick-Disconnect Tube Coupling for Food and Beverage, Socket, 1/4 Coupling Size, for 1/4" Barbed Tube ID

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1. White Carboy Container/Cap (240-0055-01)

- 1.1. Remove cap, set aside container. Using needle-nose pliers, nip off dimple from the inside of the cap.



Figure 1: Nip off dimple from inside cap

- 1.2. Using a center punch, drive a pilot hole through the center of cap and drill a hole using a 5/32-in drill bit. Clean out any flashings.
- 1.3. Using a step drill bit opened to 5/8", drill into the pilot hole on top of cap. Clean out any flashings. Set drilled cap aside.

2. Reducing Hex Bushing (SP229-45)

- 2.1. Tightly wrap 3/8-in Teflon tape (3X) around threads of the bushing. Cut from spool.
- 2.2. Insert and thread bushing into drilled cap by hand or using a wrench, creating a tight seal.

3. NPTF LIQUIfit™ Male Connector Valve (PN091-167)

- 3.1. Tightly wrap 3/8-in Teflon tape (2X) around threads of the valve.
- 3.2. Insert and thread valve into the bushing end of the cap/bushing assembly.



Figure 2: Thread valve into bushing on cap

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- 3.3. Thread and tighten cap assembly onto the opening of the carboy container, making sure to line up the valve with the container's handle (Figure 3).



Figure 3: Valve aligned with container handle

4. **Masterkleer Color PVC Tubing Red (D218-55)**

- 4.1. Cut tubing to 4 ft using a large size poly hose cutter and measuring tape.
- 4.2. Slide tube clamp over one end of the hose.
- 4.3. Insert tube coupling into end of hose.
- 4.4. Press tube clamp with fingers to lock, two clicks (Figure 4). Fasten tightly with pliers. Set aside.



Figure 4: Press to lock tube clamp onto hose (two clicks)

5. **Polyurethane Tubing Tinted Blue (250-0071-01)**

- 5.1. Using a poly flow hose cutter and measuring tape, cut tubing to 3.5 ft (42").
- 5.2. Slide the Double Snap-Grip Clamps (PN021-233) onto end of tubing.
- 5.3. Insert and fit the Quick-Disconnect Tube Coupling (PN091-172) into the end of hose. To ensure proper fitting, press against hard surface.
- 5.4. Press snap-grip clamp with fingers to lock. Fasten tightly with pliers.