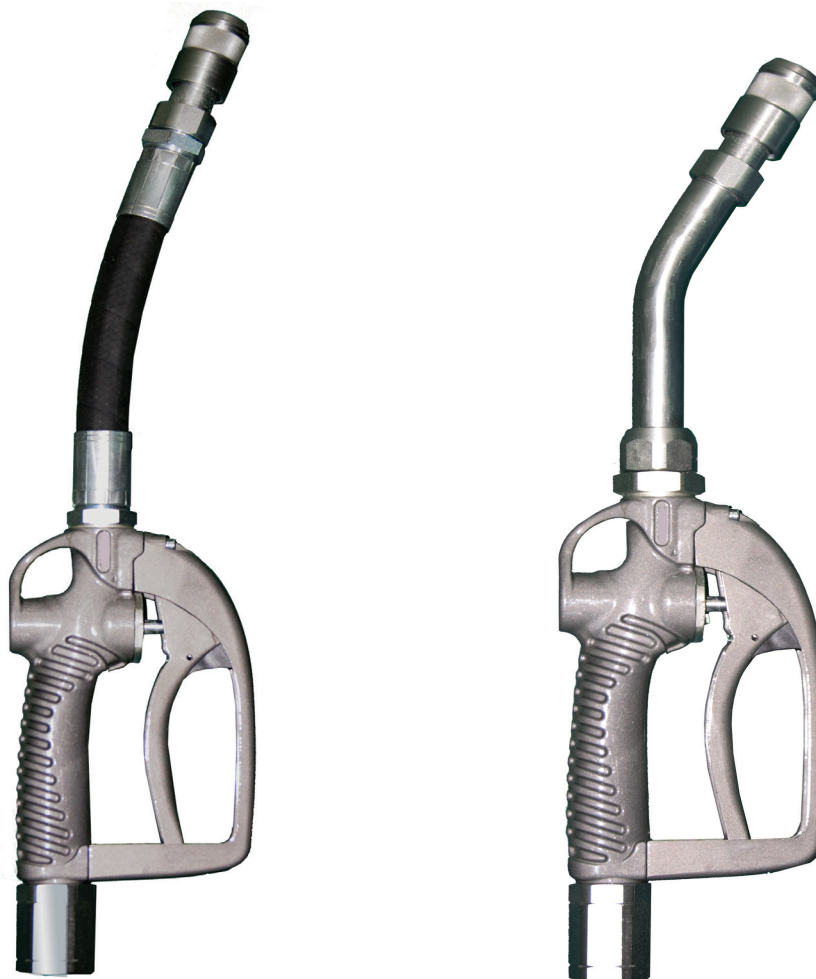




## HighFlo (HF) Control Handle

Model 3320-051 .....	HF Non-Metered Control Handle w/rigid extension, Semi-Auto tip, & 3/4" Swivel
Model 3320-052 .....	HF Non-Metered Control Handle w/flex extension, Semi-Auto tip, & 3/4" Swivel
Model 3320-053 .....	HF Non-Metered Control Handle w/rigid extension, Semi-Auto tip, & 1" Swivel
Model 3320-054 .....	HF Non-Metered Control Handle w/flex extension, Semi-Auto tip, & 1" Swivel



Thoroughly read and understand this manual before installing, operating or servicing this equipment.

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Operation, Installation,  
Maintenance and Repair Guide

# GENERAL SAFETY



## IMPORTANT

Read these safety warnings and instructions in this manual completely, before installation and start up of the control handle. It is the responsibility

of the purchaser to retain this manual for reference. Failure to comply with the recommendations stated in this manual will damage the control handle and void factory warranty.



## WARNING

Airborne particles and loud noise hazards.

Wear ear and eye protection.



## CAUTION

- 1) Always read and follow the fluid manufacturers's recommendations regarding the use of protective eye wear, clothing, gloves, and other personal equipment.
- 2) Never alter or modify any parts of this product; doing so may cause damage and/or personal injury.



## CAUTION

Maximum Fluid Pressure 1450 PSI (100 bar). Under no circumstances should the control handle be aimed at any person or your own body at anytime. Personal injury may result.



## WARNING

**DANGER:** Not for use with fluids that have a flash point below 100°F ( 38°C, examples: gasoline, alcohol). Sparking could result in an explosion which could result in death.



## WARNING

Always use the following pressure relief procedure whenever shutting off, cleaning, or in any way checking or servicing the control handle:

- 1) Disconnect compressed air line or turn off power supply at the fluid pump.
- 2) Point the control handle outlet into a waste container and open trigger to relieve pressure.
- 3) Open any bleed-type supply air valves and fluid drain valves in the system.
- 4) Leave the drain valves open until you are ready to re-pressurize the system.



## WARNING

Do not place your hand or fingers over the dispensing nozzle and/or aim the nozzle at a person at any time. Personal injury may result.

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## PRODUCT DESCRIPTION

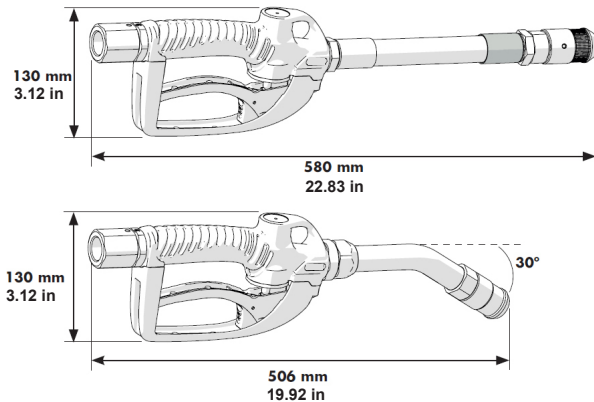
The high flow control handle has been designed for service where larger volume deliveries are required. It can dispense a variety of fluids including engine oils, hydraulic oils, and antifreeze fluid. The pressure balanced control handle allows progressive opening for better control of fluid delivery. The valve can be locked in open position by means of the trigger button. The control handle includes a trigger guard to prevent accidental opening.

Refer to operation section for details of operation.

All control handle models include either a 3/4" or 1" threaded swivel, a nozzle extension w/ tip, and an easily replaceable inlet strainer.

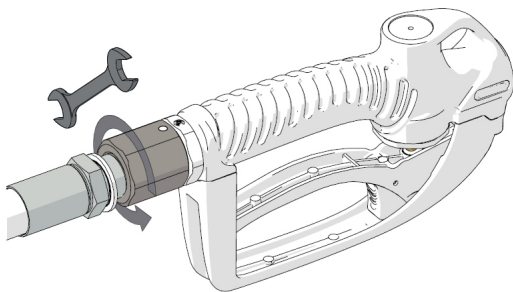
## TECHNICAL SPECIFICATIONS

Max Flow.....	18.6 Gal/min. (70 L/min.)
Pressure Drop @ Max Flow .....	43.5 psi (3 bar)
Max working pressure.....	1450 psi (100 bar)
Weight.....	4.52 lbs (2.05 Kg)
Inlet.....	3/4" or 1" NPT
Operating Temp. Range.....	14°F - 158°F (-10°C - 70°C)
Fluid compatibility.....	Oil, hydraulic oil, antifreeze
Wetted Parts.....	Aluminum, brass, NBR, Zinc plated steel



## INSTALLATION

The control handle is supplied with the extension assembled and ready for operation. To connect the control handle to the fluid line, connect the end of the fluid delivery hose to the swivel until achieving the desired torque. Use thread sealant or PTFE tape for sealing.



### Perform the following procedure after installing the control handle to verify proper operation:

1. Set the minimum air pressure that allows the pump to supply fluid to the control handle.
2. Check for leaks and that no fluid is dispensed through the nozzle.
3. Pull the trigger. The fluid should be dispensed through the nozzle once system air is eliminated.

4. With the trigger at rest position, check for leaks and ensure that fluid flow has stopped. Due to fluid accumulation in the extension, fluid dripping may occur after dispense has ended. Close the nozzle tip to prevent fluid spillage.

## OPERATION

To dispense fluid, proceed as follows:

1. Adjust air line pressure at the pump until the desired fluid pressure is achieved.
2. Pull the trigger to begin dispensing.
3. Release the trigger to stop dispensing.
4. After use, the tip should be closed to prevent leakage due to fluid accumulation inside the extension.

## OPERATION (continued)

To lock the trigger in dispensing position, proceed as follows:

1. Pull the trigger to its maximum opening (fig. 1).

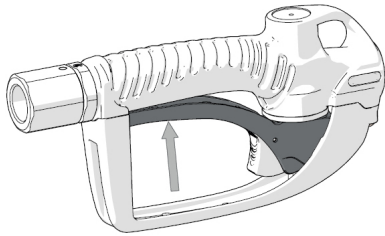


Fig. 1

2. Push the lock button (fig. 2).

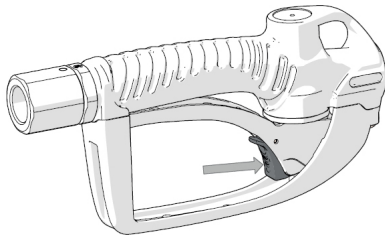


Fig. 2

3. Release the trigger holding the button down until it locks (fig. 3).

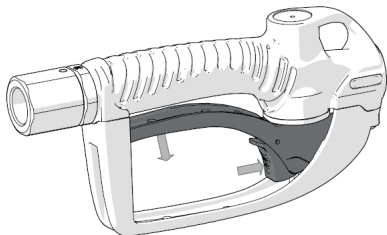


Fig. 3

4. Once locked, release the trigger and the lock button. The trigger should remain locked, otherwise, repeat the process.

5. Once the desired quantity is dispensed, pull the trigger to its maximum position and release it. The button should unlock and close the valve.



## CAUTION

Do not leave the control handle unattended if using the trigger lock feature when dispensing, doing so could result in accidental overflow.

## Semi-Auto Tip operation

If the control handle is equipped with a semi-automatic nozzle, opening is performed automatically by pulling the trigger. It does not need manual opening.

The closing of the nozzle is done by sliding the outer body of the nozzle to the gun until it stops (fig. 4).

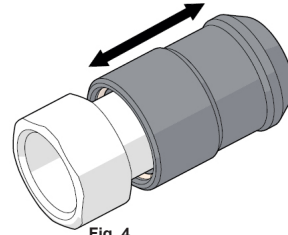


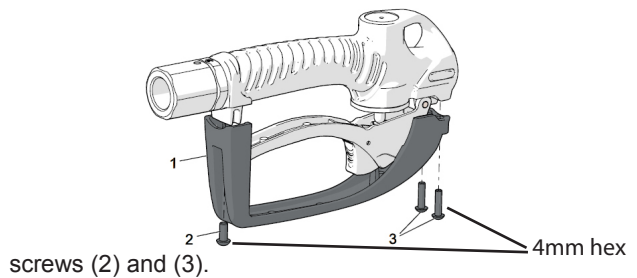
Fig. 4

## MAINTENANCE

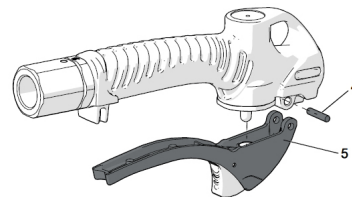
### Valve Disassembly

To perform handle inspection or component replacement, proceed as follows:

1. Check that there is no pressure in the system. (Refer to the pressure relief process on page 2.)
2. Disassemble the trigger guard (1) loosening the 4mm hex screws (2) and (3).

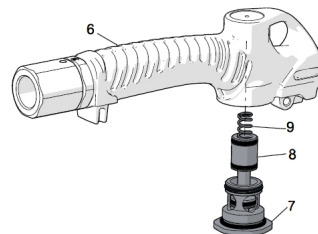


screws (2) and (3).



3. Remove the pin (4) and then pull the trigger (5).

4. Attach the control handle body (6) in a vise and loosen the valve body (7). Remove the valve plunger (8) and

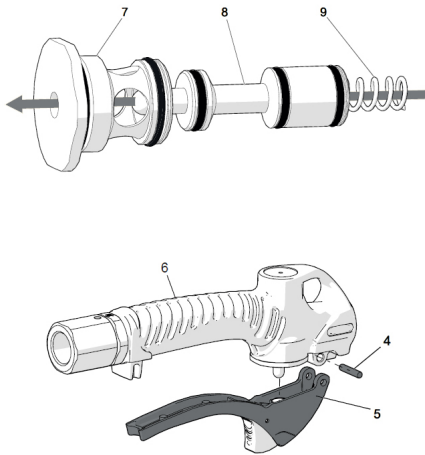


## MAINTENANCE

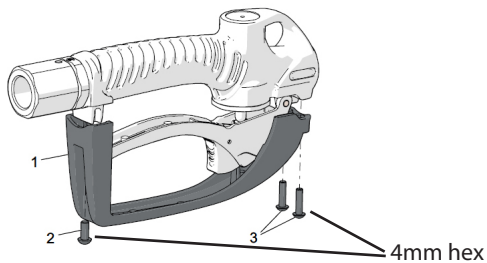
### Valve Assembly

To reassemble the handle, proceed as follows:

1. Place the plunger (8) into its housing in the valve body (7). Then place the spring (9) in the plunger (8).
2. Place the assembly mounted in step 1 in the control valve body (6) and screw the valve body (7) by hand a few turns. Take special care during assembly that the spring end (9) is placed into its housing in the control valve body.
3. Place the control valve body (6) in a vise or similar, and tighten the valve body (7).
4. Assemble the trigger (5) and then place the pin (4).



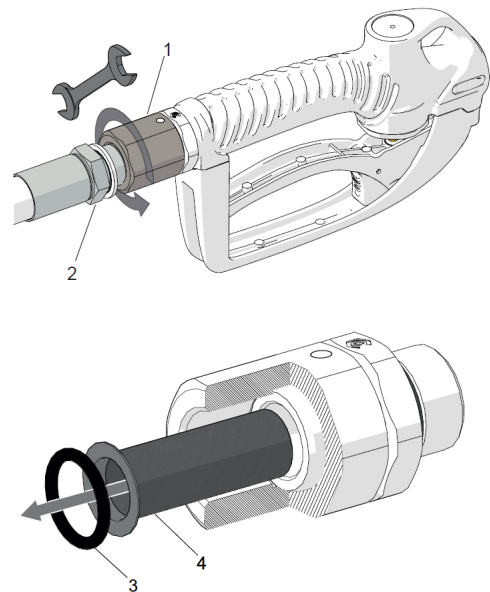
5. Assemble the trigger guard (1) tightening the screws (2) & (3).



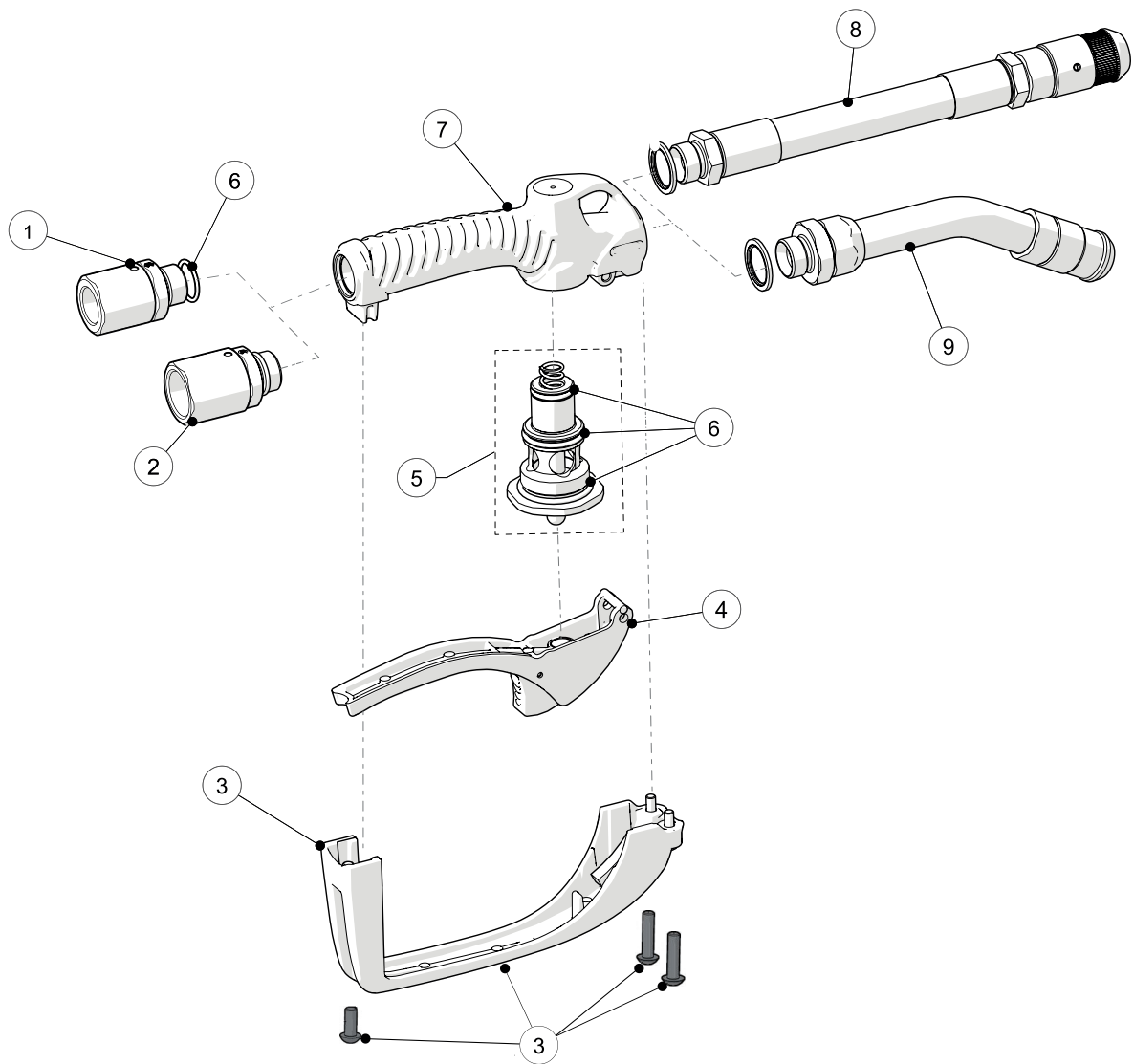
## MAINTENANCE

### Strainer Dissassembly

1. Verify that there is no pressure in the fluid line. (Refer to the pressure relief process on page 2.)
2. Disconnect the hose from the swivel (1) by loosening the fitting (2) of the hose.
3. Remove the o-ring (3) and then remove the strainer (4).
4. Proceed to clean or replace the strainer.
5. Reassemble the strainer (4) in the swivel (1) and fix it with the o-ring (3).
6. Re-connect the fluid delivery hose. Use thread sealant or PTFE tape for sealing.



Symptom	Possible Cause	Remedy
Slow Flow	Strainer clogged.	Clean or replace strainer.
	Pump pressure is low.	Increase pump air pressure.
Valve leaks	Valve seal worn or damaged.	Disassemble the valve for inspection. If not damaged, clean valve seat. Otherwise replace the valve.
	Foreign material on valve seal.	
Valve does not open.	Foreign material on valve seal.	Disassemble the valve for inspection. If not damaged, clean valve seat. Otherwise replace the valve.
Leaking at swivel connection.	Swivel connection loose.	Tighten the swivel assembly
	Swivel O-ring worn or damaged.	Replace O-ring
Leaking at swivel body.	Swivel O-ring worn or damaged.	Replace O-ring
Leaking at valve body.	Valve O-ring worn or damaged.	Replace O-ring
	Valve body loose.	Tighten valve body.
Leakage at valve plunger.	Plunger O-ring worn or damaged.	Replace O-ring.



## PARTS LIST

Number	Part Number	Description	Qty
1	833376	3/4" NPT swivel with strainer and O-ring	1
2	833375	1" NPT swivel with strainer and O-ring	1
3		Trigger guard	1
		Rubber bumper	1
		Screw	2
		Scew	1
4		Trigger	1
		Lock spring	1
		Plunger stop	1
		Lock button	1
		Pin	1
		Pin	1
		Pin	1
5		Valve spring	1
		Valve body	1
		Plunger	1
		O-ring	1
		O-ring	3
		O-ring	1
6		O-ring	1
		O-ring	1
		O-ring	1
		O-ring	1
7 ( & 1)	833378	Control valve body w/ 3/4" swivel (833376)	1
7 ( & 2)	833377	Control valve body w/ 1" swivel (833375)	1
8	833380	Flex extension with Semi-Auto tip and bonded seal	1
9	833379	Rigid extension with Semi-Auto tip and bonded seal	1

**For Warranty Information Visit  
[www.balcrank.com](http://www.balcrank.com)**

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**Revision Log:**

Rev. A - Release