Overhaul Nozzle Kit

Installation, Operating, & Maintenance Instructions

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TABLE OF CONTENTS

PRODUCT SAFETY INFORMATION

- All personnel who may be expected to use this equipment must be thoroughly trained in its safe and proper use.
- Appropriate personal protective equipment, including eye protection, should be used while working with this equipment.
- Before flowing water from this device, check that all personnel (fire service and civilian) are out of the stream path. Also, check to make sure stream direction will not cause avoidable property damage.
- Become thoroughly familiar with the hydraulic characteristics of this equipment, and the pumping system used to supply it. To produce effective fire streams, operating personnel must be properly trained.
- Open water valves supplying this equipment slowly so that piping fills slowly, thus preventing possible water hammer occurrence.
- After each use, and on a scheduled basis, inspect equipment per instructions in the Maintenance section.
- The maximum allowable pressure for this product is 125 PSI (8.6 BAR)

Important: Before installing and operating provided equipment, read this manual thoroughly. Proper installation and understanding of the intended use of the Overhaul Kit is essential to safe operation.

SYSTEM INFORMATION:

NOZZLE (NOZZLE GALLONAGE AND TYPE, ACCESSORIES, DATE ORDERED, ETC.):

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KIT COMPONENTS

Overhaul Nozzle Kit – 00337001
Includes: Overhaul Nozzle, Hose, and Adapter

Overhaul Nozzle Complete Kit – 00337011
Includes: Overhaul Nozzle, Hose, Adapter, Foam Tube, and 3 foam cartridges

Overhaul Foam Tube Kit – 00337012
Includes: Foam Tube and 3 foam cartridges

NOZZLE

Overhaul Nozzle –

The Elkhart Brass Overhaul Nozzle is a low pressure, low flow, lightweight nozzle used for "mopping up" hot spots within and around structures after primary fire suppression efforts have been completed. The Overhaul Nozzle provides improved firefighter mobility when compared to typical pistol grip handline attack nozzles and hoses and helps prevent unnecessary firefighter strain, fatigue, and potential injury during overhaul. The Overhaul Nozzle includes a long 'bayonet' tip that can be used to puncture ceilings and drywall or poke into crawl spaces and other hard to reach locations.

Operating Flow:	**10-12 GPM** (38-45 LPM)
Operating Pressure:	**80 PSI** (5.5 BAR)
Max Pressure:	**125 PSI** (8.6 BAR)
Max Reach:	**45 Ft.** (13.7 m.)
Weight:	**3.7 Lbs.** (1.67 Kg)

CONNECTION

Overhaul Hose –

The Overhaul Hose is constructed of synthetic yarns woven into an optimized web and encased into nitrile rubber. The Overhaul Hose quick connect fittings allow easy and efficient assembly onto the Overhaul Nozzle and Overhaul Adapter. The Overhaul Nozzle end is an unvalved GHT female quick connection while the Overhaul Adapter end is an unvalved 3/8" male quick connection, so the hose cannot be attached incorrectly to either intended device. The 90° elbow on the Adapter end, in combination with the quick connection, allows the hose to be lifted and moved easily without requiring additional adjustment of the Adapter positioning once placed on the ground. The quick connect at the Adapter end allows the hose to be connected to the attack line hose through the Overhaul Adapter while the attack line is still pressurized.

Length:	**25 Ft.** (7.62 m.)
Max Pressure:	**125 PSI** (8.6 BAR)
Weight:	**3.8 Lbs.** (1.72Kg)

Overhaul Adapter –

The Overhaul Adapter is designed to be attached onto a 1.5" attack line hose immediately before the chosen attack hand line nozzle. After primary firefighting efforts have been completed with the attack nozzle, the nozzle is shutoff and placed on the ground and the Overhaul Nozzle and Hose may be connected to the Overhaul Adapter to initiate overhaul activities.

The Overhaul Adapter is fitted with an aluminum guard to provide protection to the hydraulic quick connection used to connect the Overhaul Hose to. The Overhaul Adapter also includes a free swivel to provide added mobility when both the Adapter is placed on the ground and when the attack nozzle is still being used.

Operating Pressure:	**80 PSI** (5.5 BAR)
Max Pressure:	**250 PSI** (17.23 BAR)
Weight:	**2.3 Lbs.** (1.04 Kg.)

Important! Once initial operations have been completed, the pressure must be reduced before connecting the Overhaul Nozzle and Hose to the Overhaul Adapter.

ACCESSORY

Overhaul Foam Tube

The Elkhart Brass Overhaul Foam Tube allows the Overhaul Nozzle to be used with foam. By installing the Foam Tube into the Overhaul Nozzle, foam cartridges may then be placed into the water way, creating foam as the flowing water passes over them.

Operating Pressure:	**80 PSI** (5.5 BAR)
Max Pressure:	**125 PSI** (8.6 BAR)
Weight:	**1.25 Lbs.** (0.56 Kg.) when empty
	1.5 Lbs. (0.68 Kg.) with Foam Cartridge
Recommended Foam:	Phos-Chek Solid Class A Foam Stick, 6" Length

Foam quality and duration depends partially on the type of foam used within the Overhaul Foam Tube. Foam duration using the recommended foam type and operated at the correct operating pressure should be approximately 25-30 minutes. The best foam is produced in the first 20 minutes after installing a new foam cartridge.

Foam quality also depends on the distance from the intended target. It is recommended that foam spray be used within 25 feet of intended targets in order to produce substantial foam. Foam production will likely improve with increases in proximity to intended targets.

INSTALLATION INSTRUCTIONS

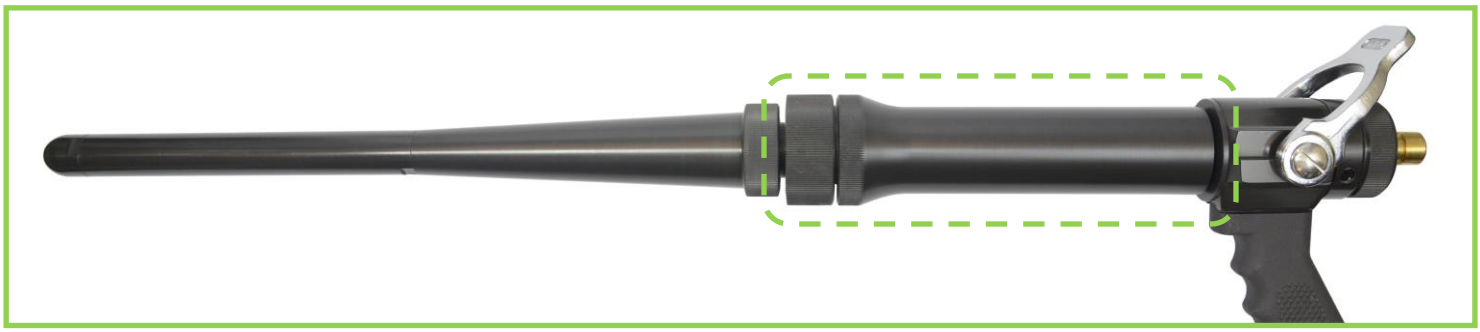
Overhaul Adapter –

The Overhaul Adapter should be installed onto a 1.5" attack line hose connection immediately before the attack nozzle. Ensure that there is a gasket in both the Overhaul Adapter and attack nozzle before assembling both items onto the attack line hose. Position the Overhaul Adapter so that it does not affect the ability of the attack nozzle to be carried and operated comfortably. Use and operate the attack line nozzle as normal; the Overhaul Adapter should not affect the operation of this nozzle. The attack nozzle is not provided with the Overhaul Nozzle Kit.

Overhaul Foam Tube (Optional) –

Installing the Overhaul Foam Tube onto the Overhaul Nozzle:

- Disconnect the Overhaul Nozzle from all hose lines and drain all fluid from the Nozzle.
- Twist and disconnect the tapered Nozzle section from the Nozzle shut-off body.
- With the Overhaul Foam Tube fully assembled, first thread it onto the Nozzle shut-off body before reassembling the tapered Nozzle section onto the end of the Overhaul Foam Tube.



Installing the foam cartridge into the Overhaul Foam Tube:

- Disconnect the Foam Tube cap from the Foam Tube body.
- Insert the chosen foam cartridge into the Foam Tube body.
- Reassemble the Foam Tube cap onto the Foam Tube body.
    - Ensure the mesh strainers are installed on both ends of the Overhaul Foam Tube.

OPERATING INSTRUCTIONS

A. Overhaul Nozzle Setup

- After primary firefighting activities are completed, shutoff the attack nozzle and place it on the ground.
- Ensure that Overhaul Adapter inlet pressure is set to 80 PSI.
- Connect the Overhaul Hose to the Overhaul Nozzle by snapping together the respective GHT quick connections.
- Unroll the Overhaul Hose completely, working out any kinks or folds in the hose.
- Ensure the Overhaul Nozzle shut-off is in the closed position, and connect the Overhaul Hose to the Overhaul Adapter. The connectors will 'click' into place when fully secured.
    - This can be done while the attack line is pressurized, but may subject the operator to some spray discharge from the connection.

B. Overhaul Nozzle Teardown

- When overhaul operations have been completed, shut off the Overhaul Nozzle.
- Disconnect the Overhaul Hose from the Overhaul Adapter.
    - This can be done with both the attack line and Overhaul Hose line pressurized, but may subject the operator to some spray discharge from the connection.
- Drain the Overhaul Hose of any remaining fluid from either end.
- Roll and store the Overhaul Hose as you would any other firefighting hose.
- Hold the Overhaul Nozzle vertically and OPEN/CLOSE the shut-off several times until all remaining trapped fluid is released from the nozzle.
- Close the Overhaul Nozzle shut-off before storing.

C. Overhaul Foam Tube

- The water passing over the foam cartridge will create foam at a rate dependent on the nozzle pressure, flow, and distance from the target.
- When overhaul operations are complete, remove the foam cartridge from the Foam Tube and perform the maintenance operations as listed in the Maintenance Instructions section.

NOTES:

- The Overhaul Hose line can be connected to the Overhaul Adapter while the attack line is pressurized **and the Overhaul Nozzle is shut off.**

Warning! Connecting and disconnecting the Overhaul Hose line to the Overhaul Adapter while the attack line is pressurized will result in a pressurized spray discharge from the connection that can be dangerous to personnel. Appropriate personal protective equipment, including eye protection, should always be used when working with this equipment.

MAINTENANCE INSTRUCTIONS

Preventive Maintenance

The following maintenance procedure should be followed after each use of the Overhaul Nozzle Kit, as well as each month during times when the Overhaul Nozzle Kit is not in use.

Overhaul Nozzle

- Remove the Nozzle tip and long nozzle sections from the shut-off, and inspect the insides for any debris or buildup. Clean and remove any debris.
- Inspect the Nozzle shut-off and remove any debris. OPEN/CLOSE the shut-off to ensure no debris is caught inside the ball.
- Inspect the quick connect on the back of the Nozzle shut-off. Ensure it has not become damaged and can make a good connection with the mating quick connect on the Overhaul Hose.
- Inspect the O-rings of the long Nozzle sections. Replace any that show signs of wear.
- Rotate the swivel to ensure there is no binding in the joint.
- Reassemble the nozzle and rinse the inside and outside with clean water and let dry.

Overhaul Hose

- Inspect both the GHT quick connect end and the hydraulic quick connect ends for damage. Make sure the quick connects can make a good connection with the mating parts of the Overhaul Nozzle and Overhaul Adapter.
- Inspect the hose line for damage which could result in a leak.
- Ensure the hose is dry before storing.

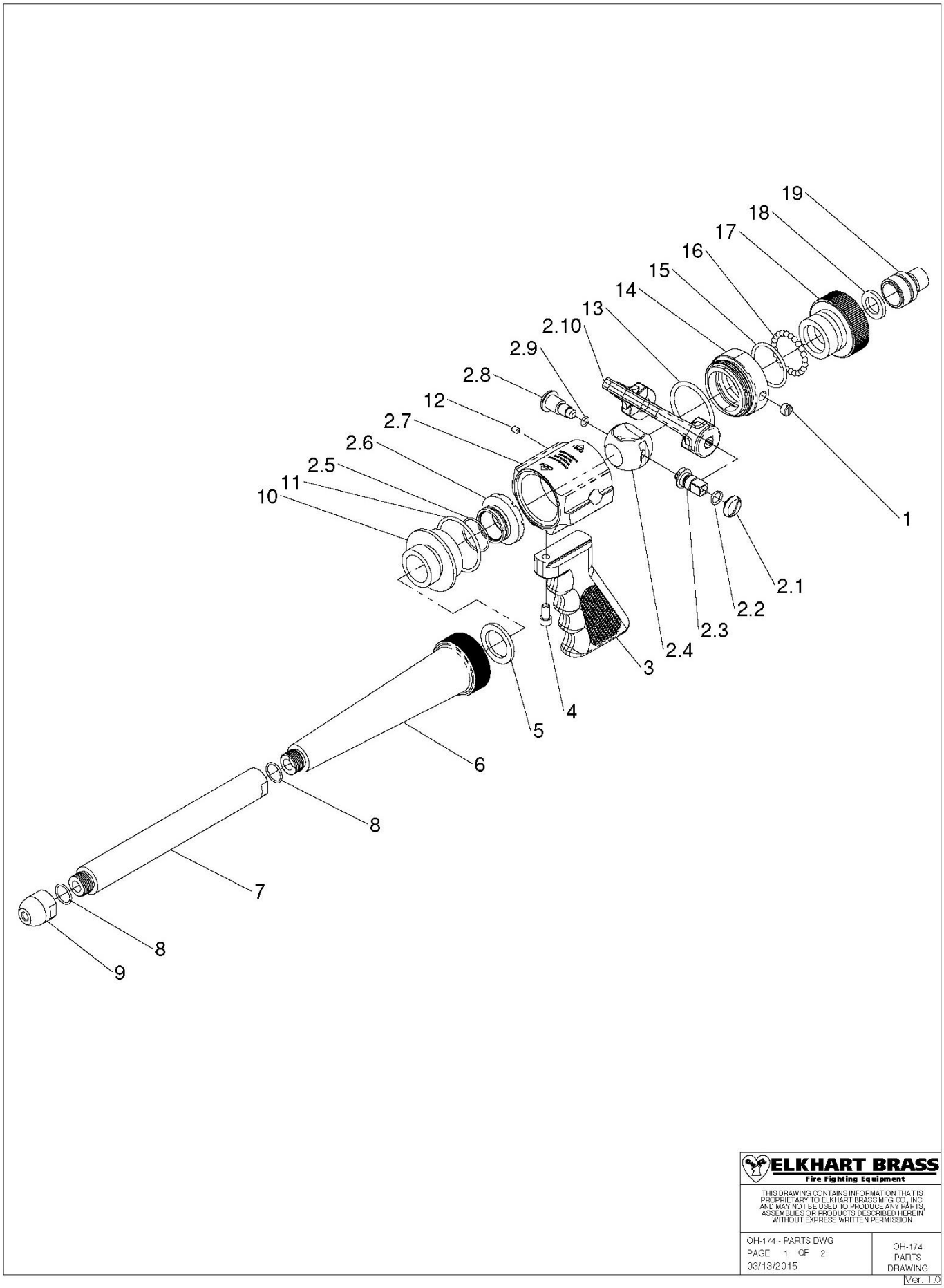
Overhaul Adapter

- Inspect the threads of the swivel and outlet end for damage.
- Inspect the hydraulic quick connect and ensure that it can make a good connection with the mating connector on the Overhaul Hose.
- Rotate the swivel to ensure there is no binding in the joint.
- Rinse the Adapter with clean water and let dry.

Overhaul Foam Tube

- Remove the Foam Tube from the Overhaul Nozzle.
- Remove the foam cartridge from the Foam Tube.
- Check that both the upstream and downstream mesh strainers are still installed properly.
- Remove any bits of foam material or other debris from the Foam Tube and/or Overhaul Nozzle.
    - Check the mesh strainers and inside of the Foam Tube
    - Check the Nozzle tip and long Nozzle sections
    - Check the Nozzle ball shut-off and quick connect
- Flush the inside and outside of the Foam Tube and Nozzle. Let the parts dry before assembly.

PARTS DRAWINGS



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OH-174 - PARTS DWG PAGE 1 OF 2 03/13/2015	OH-174 PARTS DRAWING

Ver. 1.0

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	63688000	SCREW-SET (.375-24 X .25) BLACK NYLON (6/6)	1
2	80500001	SB-275-A BODY SUB-ASSEMBLY	1
2.1	61286000	SCREW - SHAFT	1
2.2	57298000	O-RING, AS-568-012	1
2.3	63755000	SHAFT-ACTUATOR (SQUARE)	1
2.4	15076000	BALL - VALVE 1.0	1
2.5	57327000	O RING AS-568-024 1.114 X.070	1
2.6	61357000	ADJUSTABLE SEAL 1.0	1
2.7	16965001	BODY - VALVE 1.5" SHUT-OFF	1
2.8	63708000	SCREW PIVOT (STNLS STL)	1
2.9	57348000	O RING AS-568-010 .239 X.070	1
2.10	36276004	HANDLE - TAB (DOUBLE STOP) RC	1
3	33781001	PISTOL GRIP	1
4	61040000	SCREW 250-20X0.500 SOC CAP SS	1
5	33091000	GASKET-RUBBER (1.0 NHT)	1
6	17218001	BODY - NOZZLE OH BASE	1
7	17219001	BOD - NOZZLE OH EXTEND	1
8	57295000	O RING AS-568-016 .614 X.070	2
9	66458001	TIP - NOZZLE OH (ALUM)	1
10	11537001	ADAPTER - BODY 1" THD	1
11	57334000	O RING AS-568-133 1.799 X.103	1
12	61269000	SCREW 10-32X0.250 SOC SET SS	1
13	57309000	O RING AS-568-224 1.734 X.139	1
14	11607001	ADAPTER - BASE (F/S)	1
15	57336000	O RING AS-568-127 1.424 X.103	1
16	15018000	0.187 STAINLESS STEEL BALL	23
17	17406001	BASE - SWIVEL 3/4" GHT	1
18	33295000	GASKET - 0.625 X 1.000 X 0.125 THK (GHT)	1
19	12002000	ADAPTER - GHT X QUICK CONNECT (PLUG)	1
NOT SHOWN	80800001	REPAIR KIT FOR NOZZLES WITH 1.0" BALL SHUTOFFS	NOT PROVIDED

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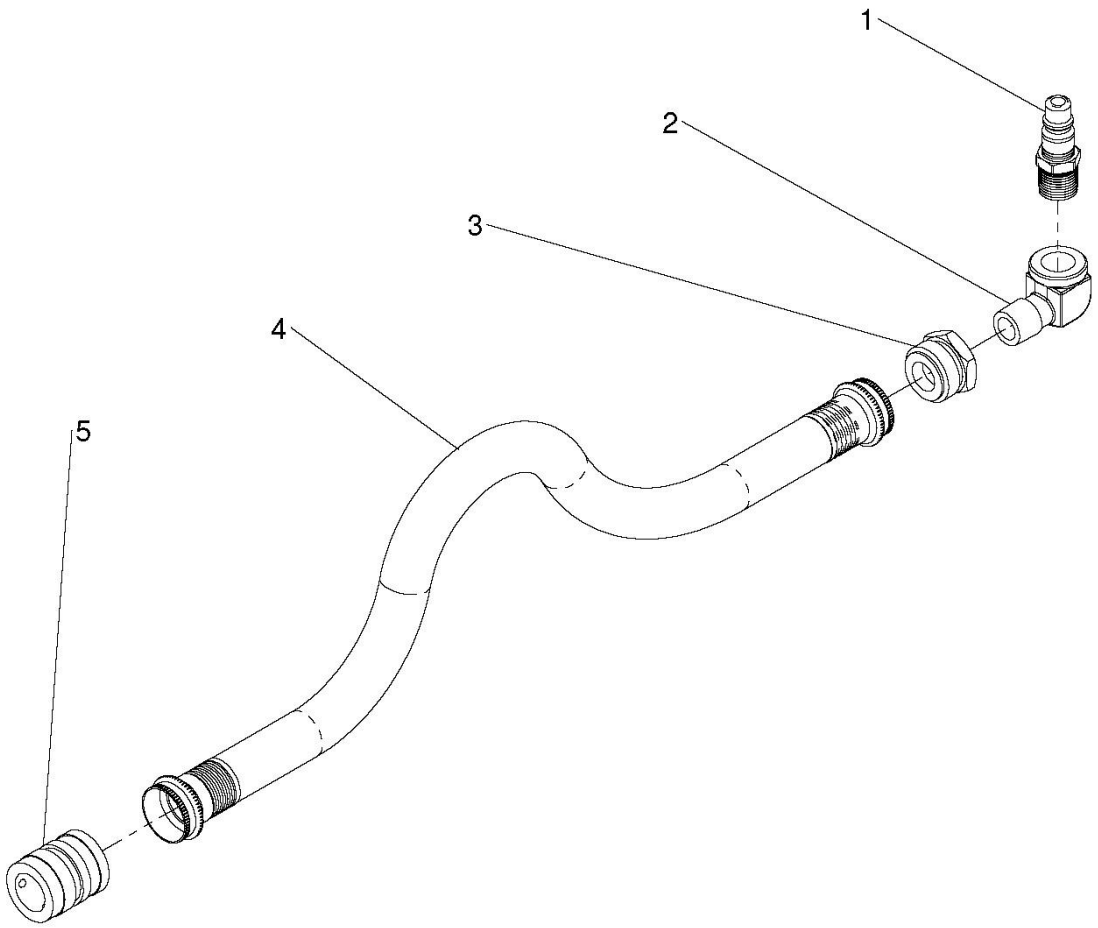
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	24308000	COUPLING - 3/8 QC (PLUG)	1
2	28183000	ELBOW - 3/8 NPT M X 3/8 NPT F	1
3	11378000	ADAPTER - 3/4 GHT M X 3/8 NPT F	1
4	36591000	HOSE - 3/4" X 25' GHT	1
5	12003000	ADAPTER - GHT X QUICK CONNECT (SOCKET)	1



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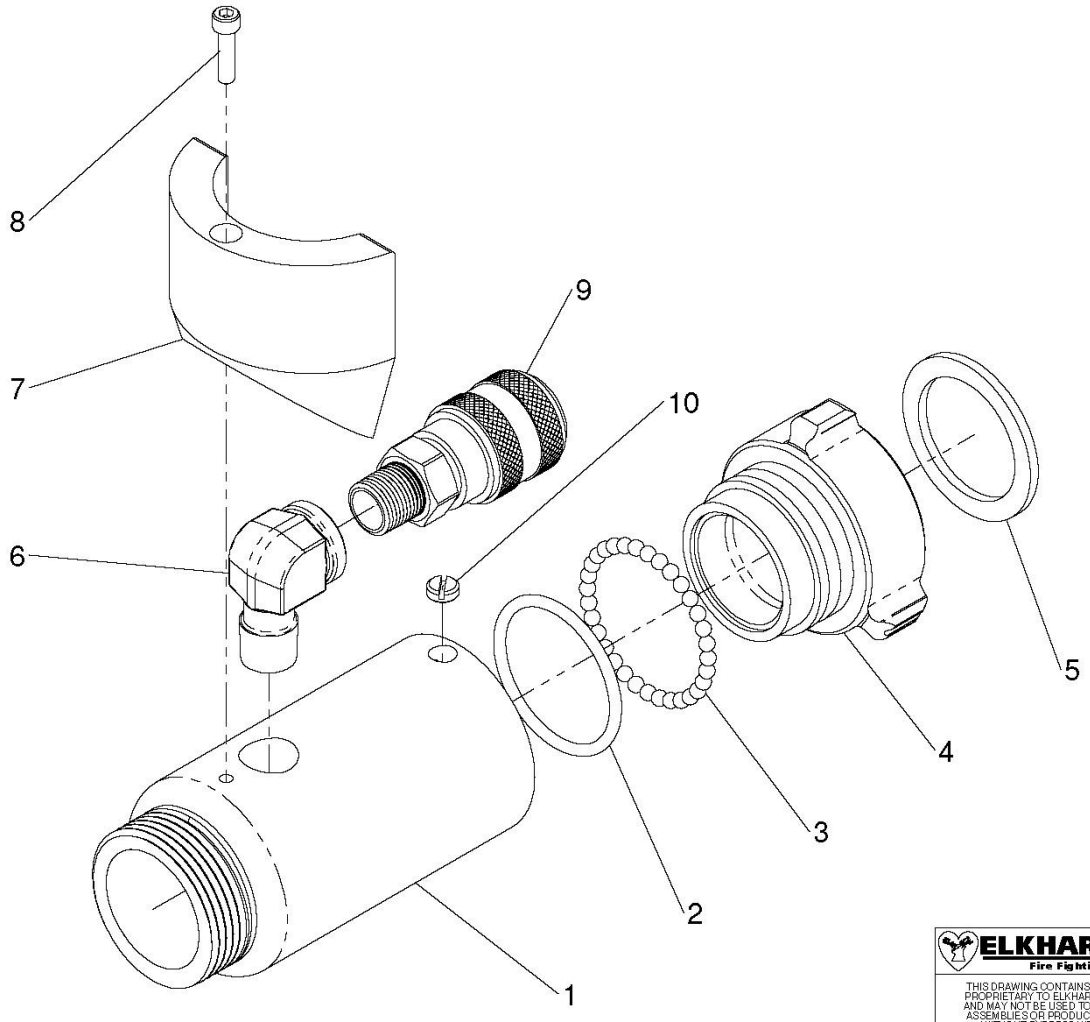
36591001 - PARTS DWG
PAGE 1 OF 1

OH HOSE PARTS DRAWING

Ver. 1.0

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	18275007	BODY - OH ADAPTER	1
2	57309000	O RING AS-568-224 1.734 X.139	1
3	15018000	0.187 STAINLESS STEEL BALL	32
4	16765007	1.5 F/S BASE FOR 1.375 DIA WW SHUTOFFS	1
5	33074000	GASKET-RUBBER 2.062X1.562X.125TH	1
6	28183000	ELBOW - 3/8 NPT M X 3/8 NPT F	1
7	24654007	COVER - OH ADAPTER	1
8	64072000	SCREW 10-32X0.750 SOC CAP SS	1
9	24309000	COUPLING - 3/8 QC (SOCKET) W/ SHUTOFF	1
10	63674000	SCREW-SET (SLOTTED) NYLON 3/8-24 X 0.156-LG	1



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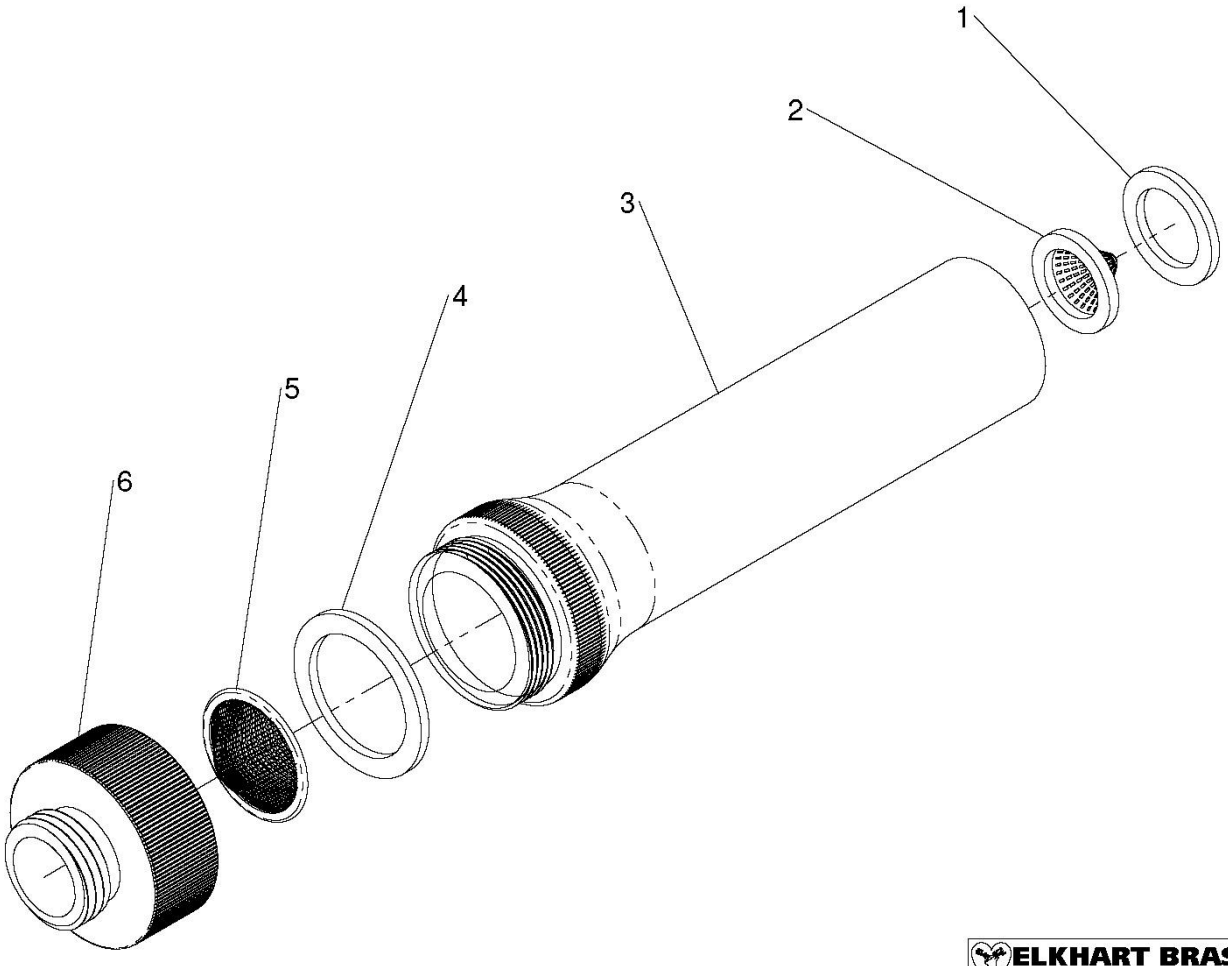
229-A - PARTS DWG
PAGE 1 OF 1

229-A PARTS DRAWING

Ver. 1.0

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	33091000	GASKET-RUBBER (1.0 NHT)	1
2	61028000	STRAINER - WASHER	1
3	67274001	TUBE - FOAM OH NZL	1
4	33074000	GASKET-RUBBER 2.062X1.562X.125TH	1
5	61021000	SCREEN/STRAINER 1.5 SS	1
6	23616001	CAP - FOAM OH NZL	1



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248 - Parts DWG
PAGE 1 OF 1

248 OH FOAM TUBE PARTS DRAWING

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