

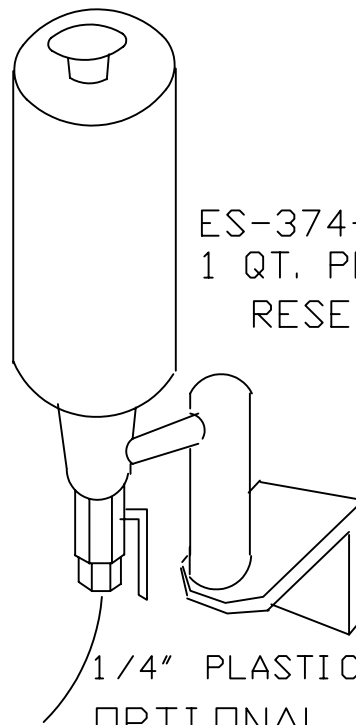
CS = 1/8" STROKE AIR CYL.

C = 1/4" STROKE AIR CYL.

CL = 3/8" STROKE AIR CYL.

VE = ES-376-VE4 SINGLE SOL.
4-WAY VALVE 110 VAC/60Hz
OR 24 VDC

VA = AIR PILOTED SPRING
RETURN 4WAY VALVE



ES-1157-C-VE-R27-JT

P = ES-374-RQ11 1qt. PLASTIC
RESERVOIR (STD.)

M = ES-374-RQ7 1qt. METAL
RESERVOIR W/HANGING RING

R27 = ES-374-R27 3oz. PLASTIC
RESERVOIR

JT = 6" JET SHOT TUBE ASSEMBLY
(STD.) ASSORTED LENGTHS UP
TO 48" IS AVAILABLE

1/4" NPT TO 1/8" NPT
REDUCING NIPPLE
OR

1/4" O. D. TUBE TO
1/8" NPT MALE CONNECTOR
WHEN USING OPTIONAL
ES-374-RQ11 1 qt. RESERVOIR

JET SHOT TUBE
ASSY. 6" (Std)

NOTE:

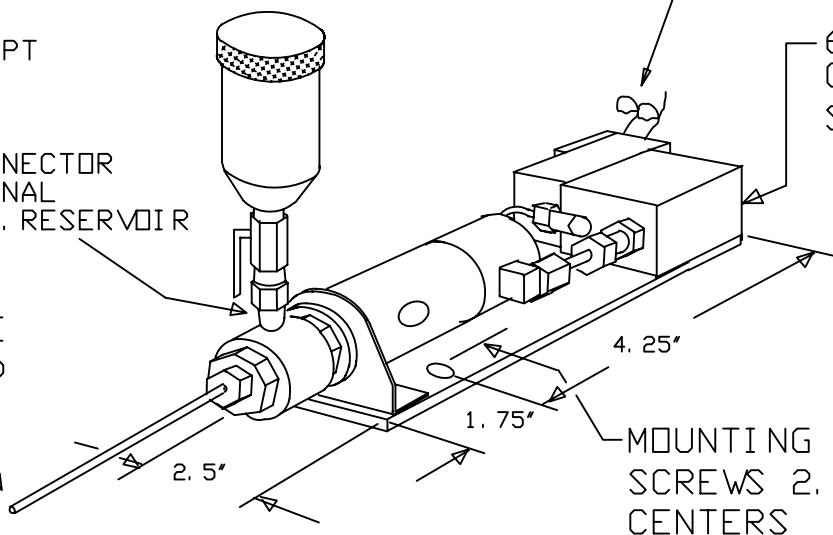
1/8" O. D. PLASTIC TUBING IS
SUBSTITUTED FOR THE JET SHOT
TUBE WHEN INK PUMP IS USED
WITH A SPRING MARKER SYSTEM

JET SHOT TUBE MAY BE BENT
SLIGHTLY TO DIRECT INK SPOT

TIP OF JET SHOT TUBE SHOULD BE
LOCATED 1/2" TO 4" AWAY FROM PART

110 VAC 60 Hz SIGNAL
OR 24 VDC

60 TO 80 PSIG
CONSTANT AIR
SUPPLY



CARCO INC
10333 SHOEMAKER
DETROIT MICH, 48312
313-925-9000

SYSTEM SHEET

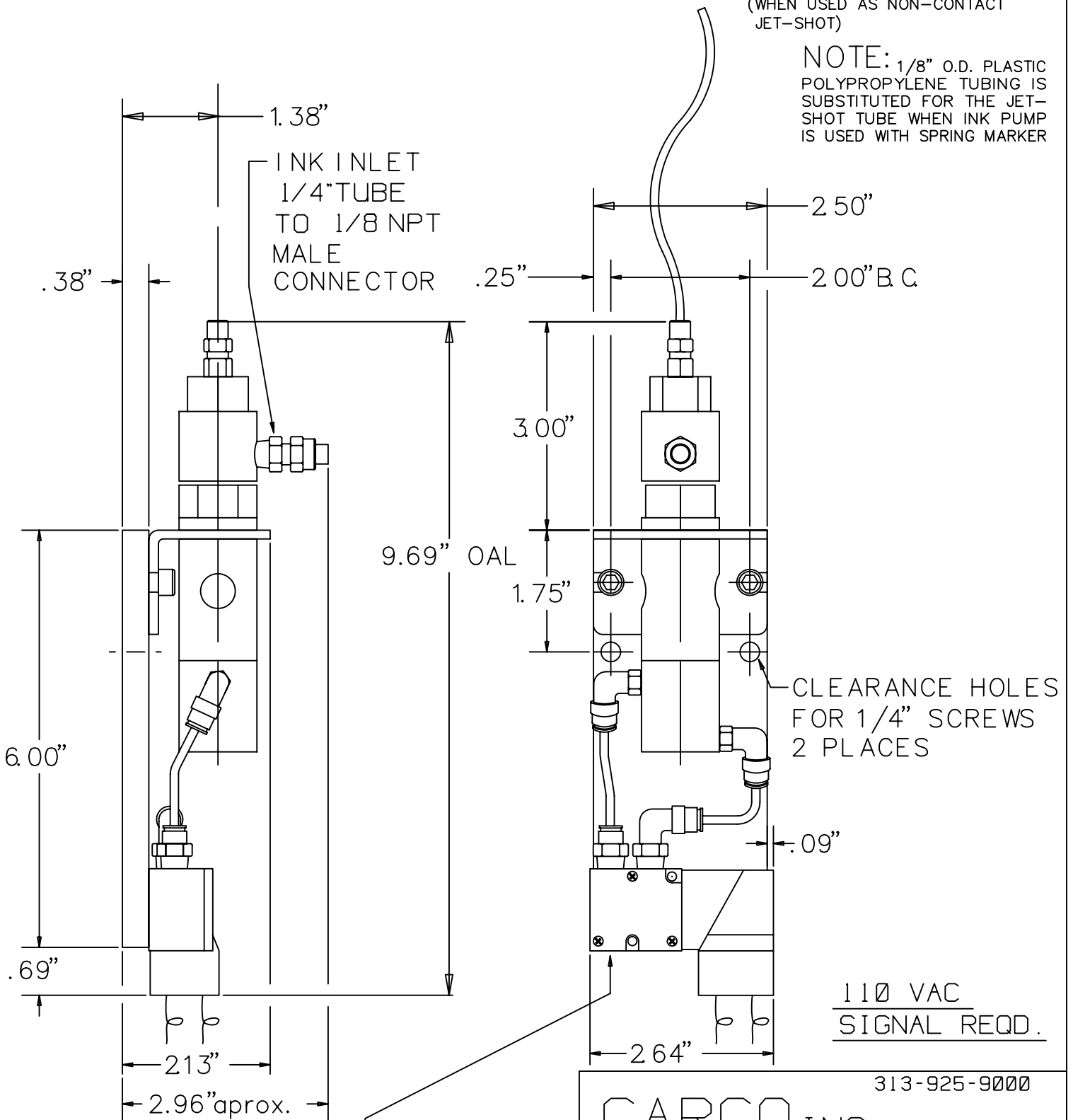
DATE

6-22-05

ES-1157-C

TUBE MAY BE BENT
TO DIRECT LOCATION
OF MARK
(WHEN USED AS NON-CONTACT
JET-SHOT)

NOTE: 1/8" O.D. PLASTIC
POLYPROPYLENE TUBING IS
SUBSTITUTED FOR THE JET-
SHOT TUBE WHEN INK PUMP
IS USED WITH SPRING MARKER



60-80 PSI
AIR SUPPLY
1/8 NPT

TRACING TEMPLATE

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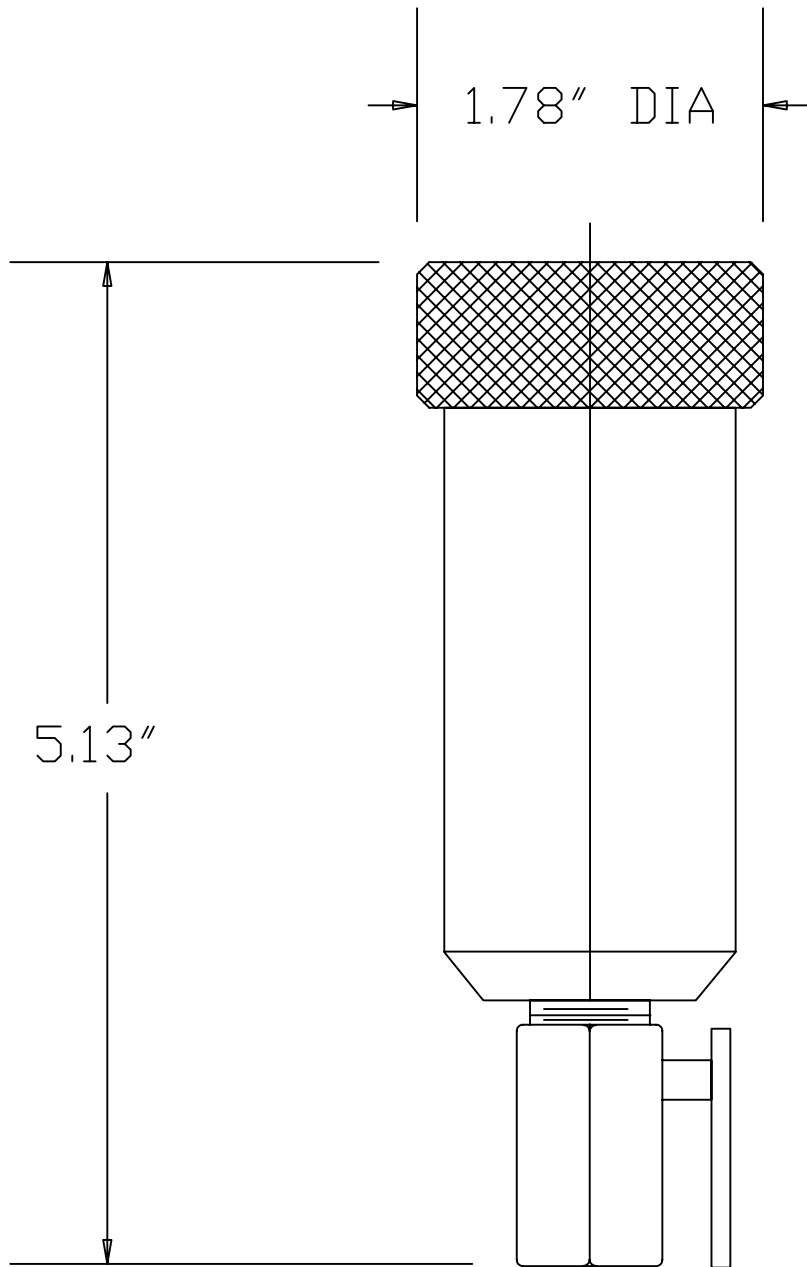
CARCO INC

10333 SHOEMAKER
DETROIT MICH 48213

MARKING DEVICES and SPECIAL INKS

DRAWN BY M. E.	DATE 4-2-03
CHK'D	SCALE HALF

ES-1157



MATERIAL
 NYLON

CAPACITY
 2oz. FLUID

TRACING
TEMPLATE

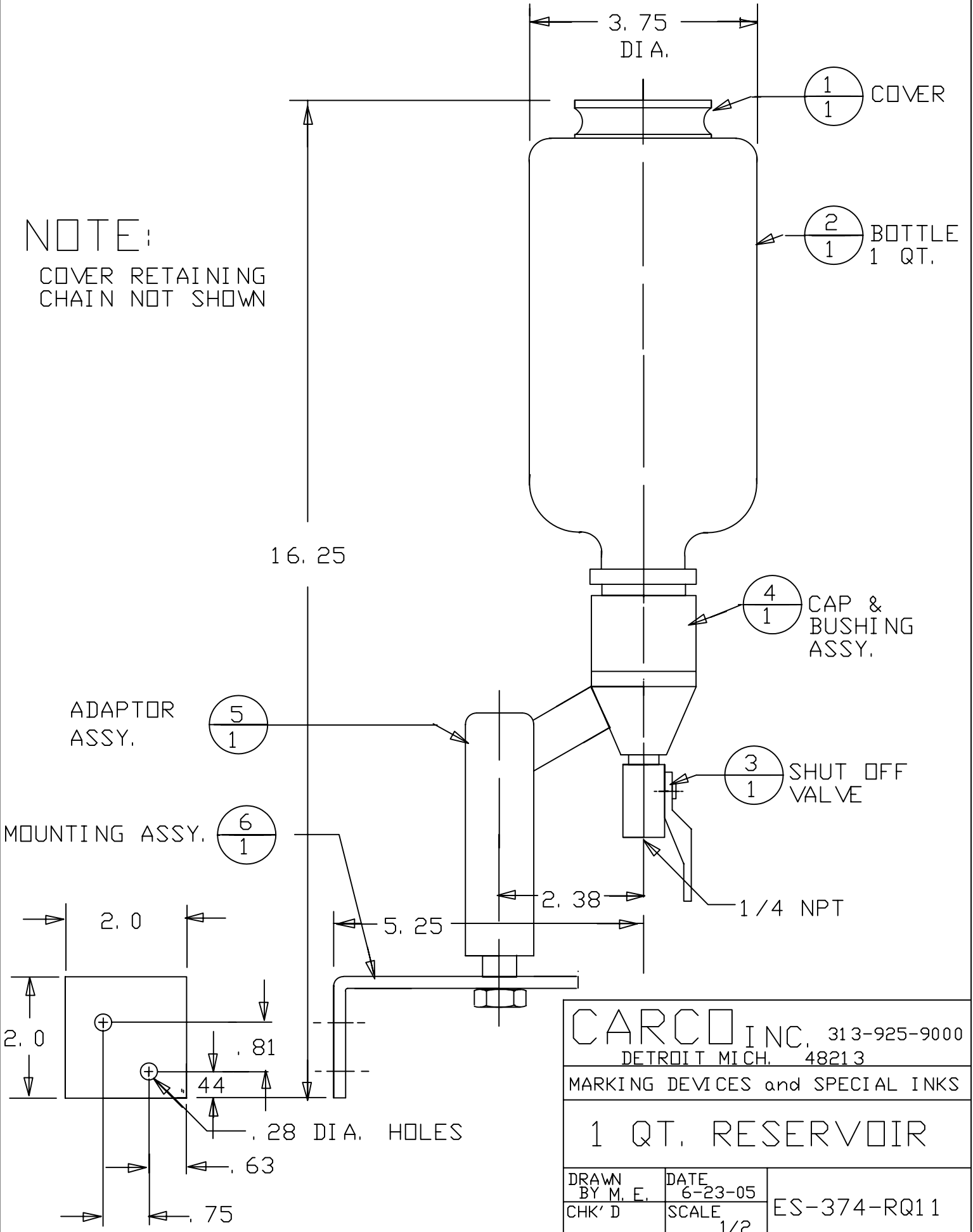
1/4" NPT
 SHUTOFF VALVE

		313-925-9000
CARCO INC.		
10333 SHOEMAKER DETROIT MICH. 48213		
MARKING DEVICES and SPECIAL INKS		
2oz. RESERVOIR W/SHUTOFF VALVE		
DRAWN BY AD	DATE 12/02/05	ES-374-R27
CHK'D	SCALE FULL	

ES-374-RQ1 1

NOTE:

COVER RETAINING
CHAIN NOT SHOWN



CARCO INC, 313-925-9000
DETROIT MICH. 48213

MARKING DEVICES and SPECIAL INKS

1 QT. RESERVOIR

DRAWN BY M. E.	DATE 6-23-05	ES-374-RQ1 1
CHK'D	SCALE 1/2	

ES-1157-C MARKING SYSTEM

SYSTEM STARTUP

ES-1157 startup begins with “*bleeding the system*”

-Turn off ink shut off valve and remove the tube adapter.
Leave the tube adapter intact and pull from pump body.

-To “*bleed the system*” flush out poppet valve by opening ink shut off valve and allow ink to flush poppet valve. Shut off ink valve and reassemble.

SERVICE SOLUTIONS

PROBLEM : Leak from pump body
SOLUTION : Replace the ES-1157-C-7 Cup Seal

CUP SEAL : Located in the pump body
The spring side of the cup seal FACES the ink inlet fitting

PROBLEM : Leakage from front
SOLUTION : Replace ES-1157-C-8 Poppet Valve &
ES-1157-C-9 Poppet Valve Spring

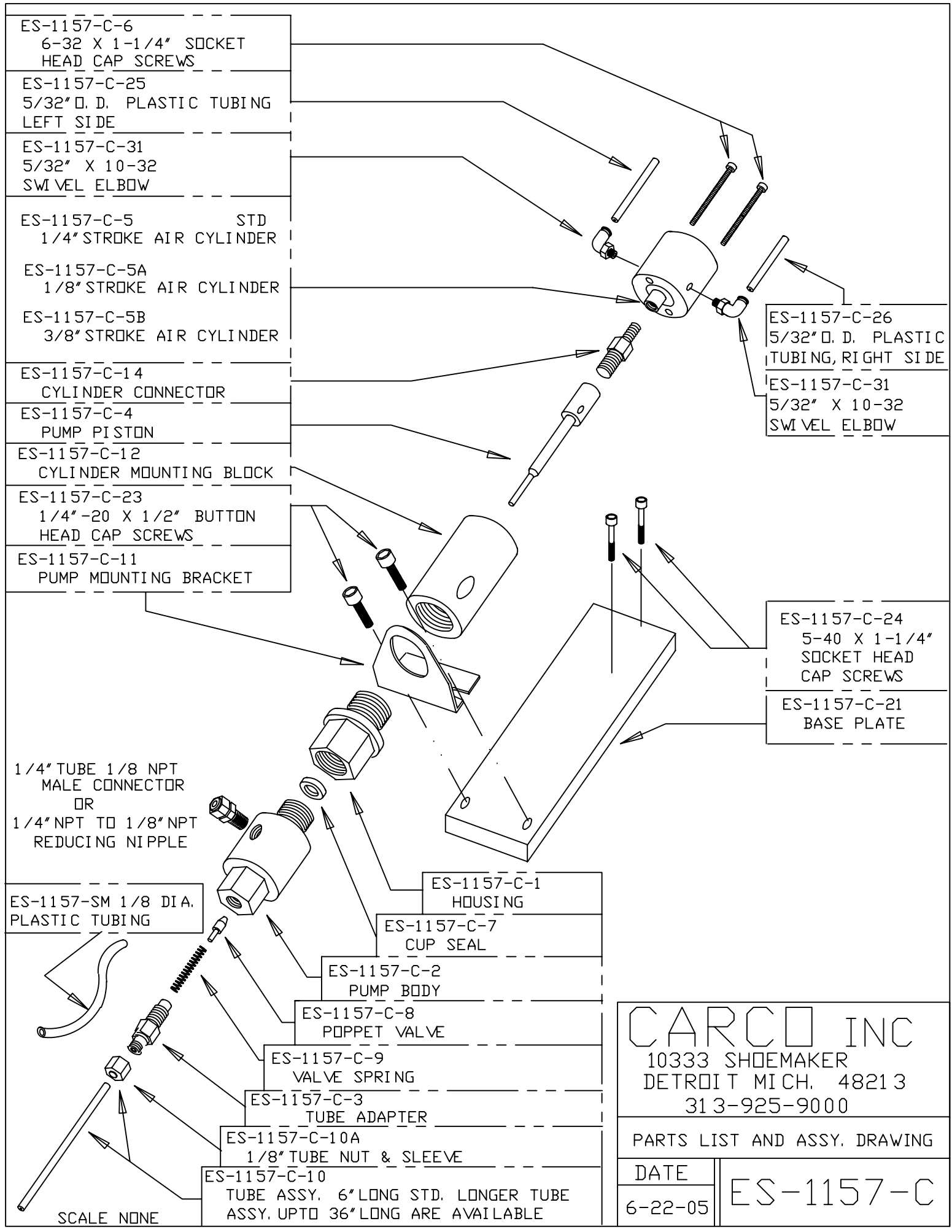
Poppet Valve & Poppet Valve Spring

Shuts off ink and remove tube adapter, leaving tube adapter intact and pull from the pump body. Wash spring with solvent and wash out inside of tube adapter when replacing poppet valve. The poppet valve will NEED TO BE REPLACED when the appearance of grooves, rings or Roughness occurs on the conical nose of the poppet valve.

To remove an existing Air Lock or to avoid an AIR LOCK during reassembly, flush out poppet valve by opening ink shut valve and allow the ink to flush poppet valve. Shut off valve and reassemble.

PROBLEM : Loss of efficiency and reliability
SOLUTION : The pump piston and pump body should be replaced when severe wear Occurs on one side of the piston, thus indicating a bent condition.

THE PUMP BODY AND PUMP PISTON MUST BE ORDERED TOGETHER, BECAUSE THEY ARE A MATCHED SET.



- ES-1157-C-6
6-32 X 1-1/4" SOCKET
HEAD CAP SCREWS
- ES-1157-C-25
5/32" O. D. PLASTIC TUBING
LEFT SIDE
- ES-1157-C-31
5/32" X 10-32
SWIVEL ELBOW
- ES-1157-C-5 STD
1/4" STROKE AIR CYLINDER
- ES-1157-C-5A
1/8" STROKE AIR CYLINDER
- ES-1157-C-5B
3/8" STROKE AIR CYLINDER
- ES-1157-C-14
CYLINDER CONNECTOR
- ES-1157-C-4
PUMP PISTON
- ES-1157-C-12
CYLINDER MOUNTING BLOCK
- ES-1157-C-23
1/4"-20 X 1/2" BUTTON
HEAD CAP SCREWS
- ES-1157-C-11
PUMP MOUNTING BRACKET

- ES-1157-C-26
5/32" O. D. PLASTIC
TUBING, RIGHT SIDE
- ES-1157-C-31
5/32" X 10-32
SWIVEL ELBOW

- ES-1157-C-24
5-40 X 1-1/4"
SOCKET HEAD
CAP SCREWS
- ES-1157-C-21
BASE PLATE

1/4" TUBE 1/8 NPT
MALE CONNECTOR
OR
1/4" NPT TO 1/8" NPT
REDUCING NIPPLE

ES-1157-SM 1/8 DIA.
PLASTIC TUBING

- ES-1157-C-1
HOUSING
- ES-1157-C-7
CUP SEAL
- ES-1157-C-2
PUMP BODY
- ES-1157-C-8
POPPET VALVE
- ES-1157-C-9
VALVE SPRING
- ES-1157-C-3
TUBE ADAPTER
- ES-1157-C-10A
1/8" TUBE NUT & SLEEVE
- ES-1157-C-10
TUBE ASSY. 6" LONG STD. LONGER TUBE
ASSY. UPTO 36" LONG ARE AVAILABLE

CARCO INC
10333 SHOEMAKER
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PARTS LIST AND ASSY. DRAWING

DATE	ES-1157-C
6-22-05	

SCALE NONE