GETZ EQUIPMENT INNOVATORS
PART NO.: 4G59058
HALON FILTRATION PUMP
(Revised 6/12/18)

2320 Lakecrest Drive, Pekin, Illinois 61554
Telephone: 888-747-4389 Fax: 309-495-0625
Website: www.getzequipment.com

Limited Warranty

Products manufactured by Getz Equipment Innovators (with exception of electrical products or components) will be free from defects for a period of one year from shipment date. Electrical products and/or components used in manufactured products will have a (6) month warranty from shipment date. During the warranty period, customers who experience any manufacture-related service issues with our products, the product may be returned for repair or replacement. Customer must contact Getz Equipment for approval prior to any product return. Notwithstanding the foregoing, the limited warranty set forth shall be immediately void of customer uses any replacement parts other than those provided by Getz Equipment Innovators. The warranty does not cover normal wear and tear items, defects resulting from modification, alteration, misuse, exposure to corrosive conditions, extremely high temperatures, improper installation or maintenance. Warranties on component items not manufactured by Getz Equipment Innovators are provided by others whose warranty, evaluation and judgment will be final.

All implied warranties, including, but not limited to, warranties of fitness for purpose and merchantability, are limited to the time periods as stated above. In no event shall Getz Equipment Innovators be liable to incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts or the exclusions or limitation of incidental or consequential damages, so that the above limitations or exclusions may not apply to you. Getz Equipment Innovators neither assumes nor authorizes any representative or other person to assume for it any obligation or liability other than as expressly set forth herein.

Mobile Service Vehicles:

The warranty does not cover:

- Defects in the chassis and or power unit
- Defects in separately manufactured products not produced by Getz Equipment Innovators
- Deterioration due to normal wear, tear, and exposure
- Repairs made necessary by negligent use, misuse, abuse, loading the service vehicle beyond its gross vehicle weight limitations, accident, acts of God, or other contingencies beyond the control of Getz Equipment Innovators.
- Repairs deemed necessary by reason of the failure to follow ordinary maintenance procedures.
- Repairs deemed necessary by reason of alterations done without Getz Equipment Innovators' written approval.

Warranty Service:

- All warranty repairs will be performed by Getz Equipment Innovators in Pekin, IL, unless otherwise authorized by Getz Equipment Innovators.

  Freight:
- Getz Equipment Innovators will not be liable for shipping or transportation charges to or from customer's location.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. To obtain performance to the obligation of the warranty, write to Getz Equipment Innovators, 2320 Lakecrest Drive, Pekin IL 61554, USA for instructions.

MODEL IFS-2 HALON 1301 INDEPENDENT FILTRATION SYSTEM

OPERATIONS MANUAL - TABLE OF CONTENTS:

MODEL IFS-2 INDEPENDENT FILTRATION SYSTEM

BASIC SYSTEM COMPONENTS:

TWO WHEEL CART

FILTER CANISTERS

HALON PUMP

REQUIRED HOSES

OPTIONAL EQUIPMENT:

P/N 2G0002 **BATTERY OPERATED HALON LEAK DETECTOR**

MODEL IFS-2 INDEPENDENT FILTRATION SYSTEM

SYSTEM OPERATION REQUIREMENTS:

1. **120 VOLT AC 50/60 HERTZ VOLTAGE SUPPLY (5 AMP).**

2. **HALON CYLINDER WITH A LIQUID and VAPOR VALVE.**

WARNING
HALON CYLINDER MUST HAVE A PRESSURE RELIEF DEVICE AND BE PRESSURE RATED FOR THE TYPE OF MEDIA THAT WILL BE PROCESSED.

AREA REQUIRED:

DEPTH - 2 FT. **WIDTH - 2 FT.** **HEIGHT - 5 FT.**

	WEIGHT	DIMENSIONS
IFS-2 SYSTEM	110 LBS.	24" D x 24" W x 60" H

SAFETY EQUIPMENT REQUIRED

1. **NEOPRENE GLOVES**
2. **SAFETY GLASSES**

MODEL IFS-2 INDEPENDENT FILTRATION SYSTEM

SYSTEM SPECIFICATIONS:

MAXIMUM INLET PRESSURE - 350 PSI

MAXIMUM OUTLET PRESSURE - 350 PSI

SYSTEM CAPABILITIES:

FILTERS CONTAMINANTS FROM LIQUID HALONS.

FILTERS ACIDS FROM LIQUID HALON

INDICATES MOISTURE IN LIQUID HALON.

FILTERS MOISTURE FROM LIQUID HALON.

FILTERS HALON AT A AVERAGE RATE OF 16 LBS PER MINUTE

PARTS LIST

NO.	PART#	DESCRIPTION
1	3G59094	HOSE 1/2 X 6 FT IFS-2 COMP
2	3G59094	HOSE 1/2 X 6 FT IFS-2 COMP
3	1G52631	CART 2 WHEEL W/BRKTS IFS-2
4	1G52630	SHELL SPORLAN 4 CORE
5	1G52630	SHELL SPORLAN 4 CORE
6	1G0453	GAUGE 600PSI GLY BTM (TANK)
7	1G58747	SWGLK ELB 1/2 NPT 1/2 TA
8	XXXXX	NOT USED
9	1G53144	PIPE TEE BR W/GAUGE TAP
10	1G58764	AD Q/CONNECT HNS MALE 524
11	1G58746	SWGLK STR 1/2 NPT 1/2 TA
12	1G58747	SWGLK ELB 1/2 NPT 1/2 TA
13	1G58747	SWGLK ELB 1/2 NPT 1/2 TA
14	1G58746	SWGLK STR 1/2 NPT 1/2 TA
15	1G51693	PIPE TEE BR 1/2 FMLE
16	1G58746	SWGLK STR 1/2 NPT 1/2 TA
17	1G58747	SWGLK ELB 1/2 NPT 1/2 TA
18	1G52700	PIPE CONN BR 1/2FL X 3/8P
19	1G52495	INDICATOR MOISTUREYE 1301
20	1G52700	PIPE CONN BR 1/2FL X 3/8P
21	1G51898	VLV BALL 1/4 FLRLSTMR SLS
22	1G58764	AD Q/CONNECT HNS MALE 524
23	1G51693	PIPE TEE BR 1/2 FMLE
24	1G0453	GAUGE 600PSI GLY BTM (TANK)
25	1G58746	SWGLK STR 1/2 NPT 1/2 TA
26	1G0304	PIPE TEE BR 1/4 FMLE
27	1G52719	PIPE ELB BR 1/4 P X 1/2 E
28	1G58764	AD Q/CONNECT HNS MALE 524
29	1G51939	VLV PR RLF 425PSI
30	1G51695	PIPE TEE BR 1/4 BOX
31	1G52629	PUMP SS 0-250 PSI IFS-2
32	1G52638	PIPE RDCR GALV 1 3/4 X 1/2
33	1G52638	PIPE RDCR GALV 1 3/4 X 1/2
34	1G58746	SWGLK STR 1/2 NPT 1/2 TA
35	1G52638	PIPE RDCR GALV 1 3/4 X 1/2
36	1G52638	PIPE RDCR GALV 1 3/4 X 1/2
37	1G0358	SWITCH TOGGLE
38	1G53391	POWER CORD BLK 10 FT
39	3G59131	AD ASY TANK IFS-2
40	3G59131	AD ASY TANK IFS-2
41	XXXXX	FILTER CANISTER BOLTS
42	XXXXX	FILTER CAP
43	1G58800	COLOR DOT
44	1G58762	AD Q/CONNECT HNS FMLE 524
45	1G58762	AD Q/CONNECT HNS FMLE 524
46	1G52845	PIPE NIP 1/4 CLOSE BR HEX
47	1G0103	PIPE RDCR BR 1/2 X 1/4
48	1G0103	PIPE RDCR BR 1/2 X 1/4

PARTS LIST (CONT.)

NO.	PART#	DESCRIPTION
49	1G0103	PIPE RDCR BR 1/2 X 1/4
50	1G51685	PIPE RDCR BR 1/2 X 3/8
51	1G51685	PIPE RDCR BR 1/2 X 3/8
52	1G52845	PIPE NIP 1/4 CLOSE BR HEX
53	1G51228	CONN 2 SCREW
54	1G0418	CORE FILTER ELEMENT
55	1G51547	MTL COP TUBE 3/8 TYPE K
56	1G51828	SPLASHCOVER SWITCH
57	1G51562	MTL SYNFLEX 1/2 2000 PSI
58	1G51562	MTL SYNFLEX 1/2 2000 PSI
59	1G51253	CPLG 1/2 ML SYNFLEX
60	1G51253	CPLG 1/2 ML SYNFLEX
61	1G51253	CPLG 1/2 ML SYNFLEX
62	1G51253	CPLG 1/2 ML SYNFLEX
63	1G58762	AD Q/CONNECT HNS FMLE 524
64	1G58762	AD Q/CONNECT HNS FMLE 524
65	1G51842	STEM BRASS CGA-660
66	1G51842	STEM BRASS CGA-660
67	1G51579	NUT BR CGA-660
68	1G51579	NUT BR CGA-660
69	1G58820	WASHER TEFLON .375 CGA NIP
70	1G58820	WASHER TEFLON .375 CGA NIP
71	1G51621	PIPE ELB BR 1/4 FMLE
72	1G51621	PIPE ELB BR 1/4 FMLE
73	1G0103	PIPE RDCR BR 1/2 X 1/4
74	1G0103	PIPE RDCR BR 1/2 X 1/4
75	1G58764	AD Q/CONNECT HNS MALE 524
76	1G58764	AD Q/CONNECT HNS MALE 524
77	1G52845	PIPE NIP 1/4 CLOSE BR HEX
78	1G52845	PIPE NIP 1/4 CLOSE BR HEX
79	1G51898	VLV BALL 1/4 FLRLSTMR
80	1G51898	VLV BALL 1/4 FLRLSTMR
81	1G51651	PIPE NIP BR 1/4 X 2
82	1G51651	PIPE NIP BR 1/4 X 2
83	1G0304	PIPE TEE BR 1/4 FMLE
84	1G0304	PIPE TEE BR 1/4 FMLE
85	1G52680	NUT BR FLARE 1/2 FROST
86	1G0417	BKT FLTR SPORLAN STEEL
87	1G0417	BKT FLTR SPORLAN STEEL
88	1G0417	BKT FLTR SPORLAN STEEL
89	1G0417	BKT FLTR SPORLAN STEEL
90	1G0217	PIPE NIP BR 1/2 X CLOSE
91	1G52845	PIPE NIP 1/4 CLOSE BR HEX
92	1G51547	MTL COP TUBE 3/8 TYPE K
93	1G51547	MTL COP TUBE 3/8 TYPE K
94	1G51547	MTL COP TUBE 3/8 TYPE K
95	1G51547	MTL COP TUBE 3/8 TYPE K

MODEL IFS-2 INDEPENDENT FILTRATION SYSTEM

SET-UP INSTRUCTIONS:

1. **AFTER ALL CARTONS AND BOXES HAVE BEEN OPENED AND ALL PARTS AND COMPONENTS UNWRAPPED, LAY OUT ALL ITEMS FOR EASE OF ASSEMBLY. CAREFULLY CHECK ALL PARTS FOR EVIDENCE OF CONCEALED DAMAGE. NOTIFY THE DELIVERING CARRIER IMMEDIATELY IF ANYTHING APPEARS TO HAVE SHIPPING DAMAGE.**

2. ***READ ALL WARNINGS REGARDING THIS SYSTEM PRIOR TO OPERATING THIS IFS-2 SYSTEM*.**

3. **INSTALL THE VAPOR ADAPTER ASSEMBLY (ITEM 39) TO THE VAPOR VALVE PORT OF THE CYLINDER THAT WILL NEED PROCESSED.**

4. **INSTALL THE LIQUID ADAPTER ASSEMBLY (ITEM 40) TO THE LIQUID VALVE PORT OF THE CYLINDER THAT WILL NEED PROCESSED.**

5. **PLACE THE TOGGLE SWITCH (ITEM 37) ON THE SIDE OF THE PUMP TO THE OFF POSITION.**

6. **PLUG THE POWER CORD (ITEM 38) INTO A 120 VOLT AC 50/60 HZ SINGLE PHASE POWER RECEPTACLE.**

7. **CONNECT ONE END OF THE LIQUID SUPPLY LINE (ITEM 2), TO THE MALE QUICK DISCONNECT COUPLING (ITEM 10) ON THE FILTRATION SYSTEM. CONNECT THE OTHER END TO THE CYLINDER NEEDING PROCESSED.**

8. **CONNECT ONE END OF THE LIQUID RETURN LINE (ITEM 1) TO THE MALE QUICK DISCONNECT COUPLING (ITEM 28) ON THE FILTRATION SYSTEM. CONNECT THE OTHER END TO THE CYLINDER NEEDING PROCESSED.**

9. **READ THE ENTIRE WARNINGS ON PAGE 9 PRIOR TO PROCEEDING TO OPERATING INSTRUCTIONS.**

MODEL IFS-2 INDEPENDENT FILTRATION SYSTEM

WARNINGS

1. **DO NOT START THIS SYSTEMS HALON PUMP (ITEM 31) UNLESS LIQUID HALON IS VISIBLE IN (ITEM 19).**
   (UN-REPAIRABLE DAMAGE WILL RESULT TO THE HALON PUMP)

2. **READ AND ADHERE TO ALL REQUIRED SAFETY EQUIPMENT NEEDED**

3. **DO NOT PLUG THIS SYSTEM INTO ANY POWER RECEPTACLE WITH A VOLTAGE HIGHER THAN 120 VOLT 60 HZ.**
   (UN-REPAIRABLE DAMAGE WILL RESULT)

4. **DO NOT TOUCH ANY ELECTRICAL CONNECTIONS ON THIS SYSTEM WHILE IN OPERATION.**
   (SEVERE ELECTRICAL SHOCK COULD OCCUR)

5. **THIS SYSTEM FILTERS LIQUID ONLY.**
   (DO NOT TRY TO FILTER VAPOR THROUGH THIS SYSTEM, PUMP DAMAGE WILL OCCUR)

6. **DO NOT TAMPER WITH ANY RELIEF VALVE SETTINGS ON THIS SYSTEM.**
   (BODILY INJURY MAY RESULT)

7. **THIS SYSTEM WAS DESIGNED TO BE CONNECTED TO ONE CYLINDER AT A TIME, THE USE OF TWO OR MORE CYLINDERS MAY RESULT IN THE OVER FILLING OF THE CYLINDER THAT WILL RECEIVE THE FILTERED HALON LIQUID.**

8. **DO NOT USE THIS IFS-2 SYSTEM AROUND ANY OPEN FLAME OR ELECTRIC HEATER.**
   (TEMPERATURES ABOVE 212 DEGREES F WILL DECOMPOSE HALONS AND PRODUCE PHOSGENE GAS)

9. **ALWAYS ENSURE THERE IS ADEQUATE VENTILATION IN THE SURROUNDING AREA WHEN USING THIS SYSTEM.**

10. **FAILURE TO READ AND FOLLOW THIS MANUAL, WILL RESULT IN VOIDED EQUIPMENT WARRANTIES AND POSSIBLE BODILY INJURY.**

MODEL IFS-2 INDEPENDENT FILTRATION SYSTEM

RECOMMENDED ITEMS FOR OBTAINING A HALON 1301 TEST SAMPLE: (Example)

WARNING -SAMPLE CYLINDER, SHUTOFF VALVE, AND QUICK DISCONNECT COUPLING MUST HAVE A PRESSURE RATING SUITABLE FOR HALON 1301 USE AND BE IN ACCORDANCE WITH DOT SHIPPING REGULATIONS.

A. SAMPLE CYLINDER WITH SHUTOFF VALVE AND QUICK DISCONNECT COUPLING

B. LIQUID ADAPTER ASSEMBLY, P/N 3G59052.

SAMPLE CYLINDER AND ADAPTER MUST BE CLEAN AND A VACUUM PULLED ON BOTH COMPONENTS, PRIOR TO OBTAINING A SAMPLE.

PROCEDURE FOR OBTAINING A HALON 1301 TEST SAMPLE PRIOR TO OR AFTER PROCESSING: (Example)

1. **INSTALL THE LIQUID ADAPTER ASSEMBLY, P/N 3G59052, ONTO THE LIQUID VALVE PORT OF THE CYLINDER THAT WILL HAVE THE SAMPLE REMOVED.**
2. **ATTACH THE FEMALE QUICK DISCONNECT COUPLING ON THE TEST SAMPLE CYLINDER TO THE MALE QUICK DISCONNECT COUPLING ON THE LIQUID PORT ADAPTER ASSEMBLY.**
3. **OPEN THE NEEDLE VALVE ON THE SAMPLE CYLINDER, OPEN THE LIQUID VALVE ON THE CYLINDER THAT THE SAMPLE IS BEING TAKEN FROM. AFTER ONE (1) MINUTE, CLOSE THE NEEDLE VALVE ON THE SAMPLE CYLINDER AND CLOSE THE LIQUID VALVE ON THE CYLINDER THAT THE SAMPLE IS BEING TAKEN FROM.**
4. **DISCONNECT THE FEMALE QUICK DISCONNECT ON THE SAMPLE CYLINDER AWAY FROM THE LIQUID PORT ADAPTER ASSEMBLY.**
5. **LABEL THE SAMPLE CYLINDER AND PROCESS CYLINDER AS FOLLOWS:**
   - **A. DATE SAMPLE WAS OBTAINED**
   - **B. SERIAL NUMBER OF THE CYLINDER THE SAMPLE WAS TAKEN FROM**
   - **C. TEST LABORATORY SENT TO**

RECOMMENDED ITEMS FOR OBTAINING A HALON 1301 TEST SAMPLE: (CONT)

6. SEND THE SAMPLE CYLINDER TO ONE OF THE FOLLOWING LABORATORIES:

TEST LABORATORIES FOR ANALYZING SAMPLES:

A **INTEGRAL SCIENCES INCORPORATED**
2818 FISHER ROAD
COLUMBUS, OHIO 43204-3538
PHONE #: (614) 279-8090

B **ETL TESTING LABORATORIES, INC.**
U.S. ROUTE 11 INDUSTRIAL PARK
CORTLAND, NEW YORK 1305-0950
PHONE #: (607) 753-6711

MODEL IFS-2 INDEPENDENT FILTRATION SYSTEM

GENERAL OPERATION OVERVIEW:

1. **THE IFS-2 SYSTEM WILL PERFORM THE FOLLOWING FUNCTIONS WHEN IN OPERATION:**

2. **LIQUID HALON WILL FLOW OUT OF THE LIQUID PORT OF THE CYLINDER BEING PROCESSED AND WILL ENTER THE IFS-2 SYSTEM AT THE TOP MALE QUICK DISCONNECT COUPLING (ITEM 10).**

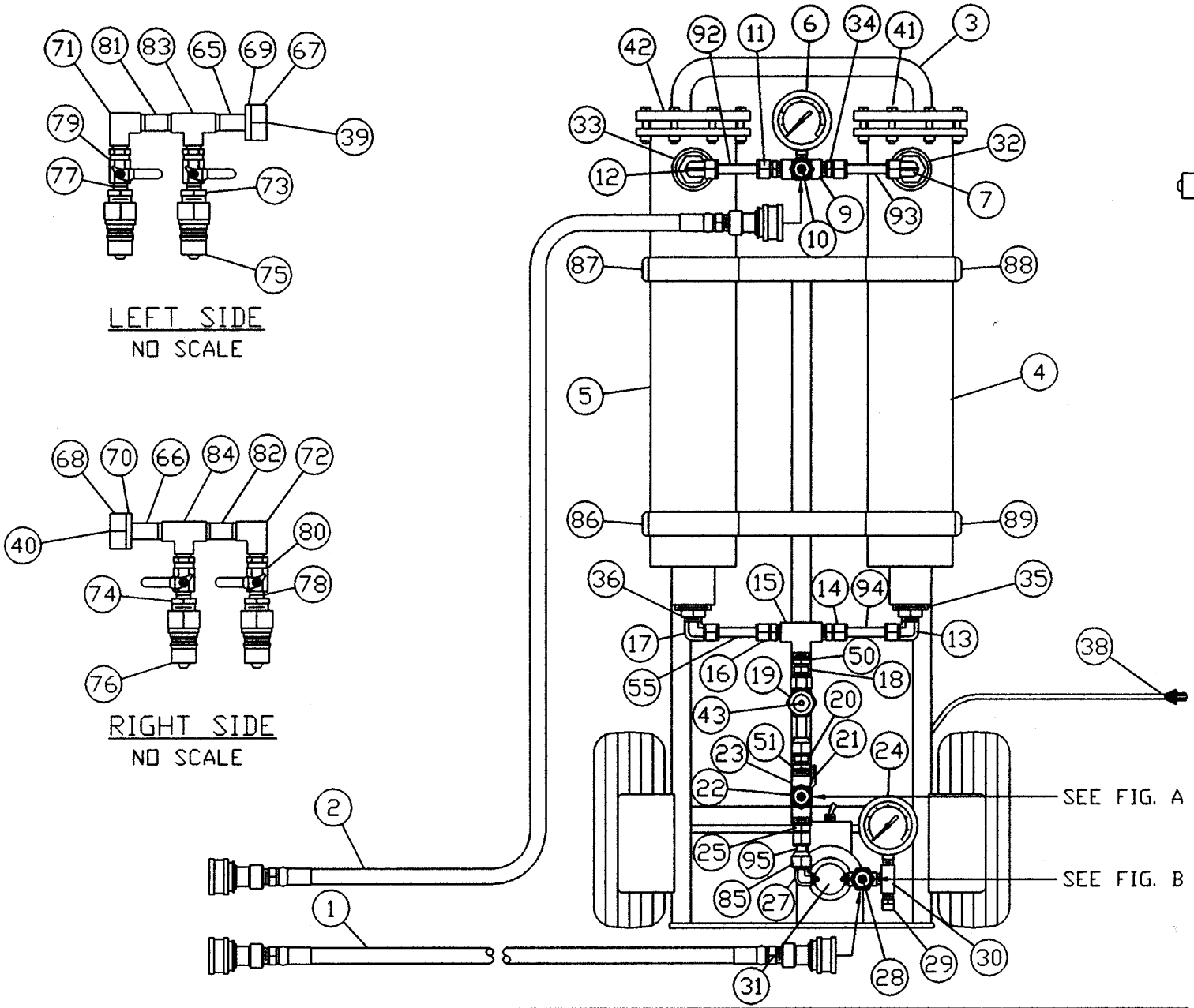
3. **ONCE INSIDE THE LIQUID HALON WILL FLOW THROUGH THE FILTER CANISTER CORES AND THE PROCESS OF FILTERING THE WATER, DIRT, ACID, OIL, ECT WILL BEGIN.**

4. **AFTER LEAVING THE FILTER CANISTER CORES, THE HALON WILL FLOW INTO THE CLEAR GLASS MOISTURE EYE AND THE QUALITY OF THE HALON WILL BE ABLE TO BE OBSERVED. THE COLOR DOT INDICATOR WILL START TO DETECT MOISTURE CONTENT AND THE CLEAR SIGHT GLASS WILL SHOW THE COLOR OF THE HALON.**

5. **THE PUMP WILL TRANSFER THE LIQUID HALON BACK INTO THE CYLINDER BEING PROCESSED THROUGH THE VAPOR PORT OF THE CYLINDER BEING PROCESSED.**

6. **THIS PROCESS WILL NEED TO BE CONTINUED UNTIL THE COLOR DOT IN THE CENTER OF THE CLEAR GLASS INDICATOR IS GREEN AND THE COLOR OF THE HALON IS CLEAR.**

7. **THIS PROCESS WILL CONTINUE UNTIL THE OPERATOR PLACES THE TOGGLE SWITCH (ITEM 37) IN THE OFF POSITION ON THE HALON PUMP (ITEM 31).**



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REV	DRAWING CHANGE	BY	ECN NO.	DATE
C	CHANGED TANK ADAPTERS	R M		9/19 96

TOLERANCES UNLESS OTHERWISE SPECIFIED

FRAC. ±.020	2 PL DEC ±.010	3 PL DEC ± .003

GETZ EQUIPMENT INNOVATORS

TITLE: SYS FILTRATION HALON

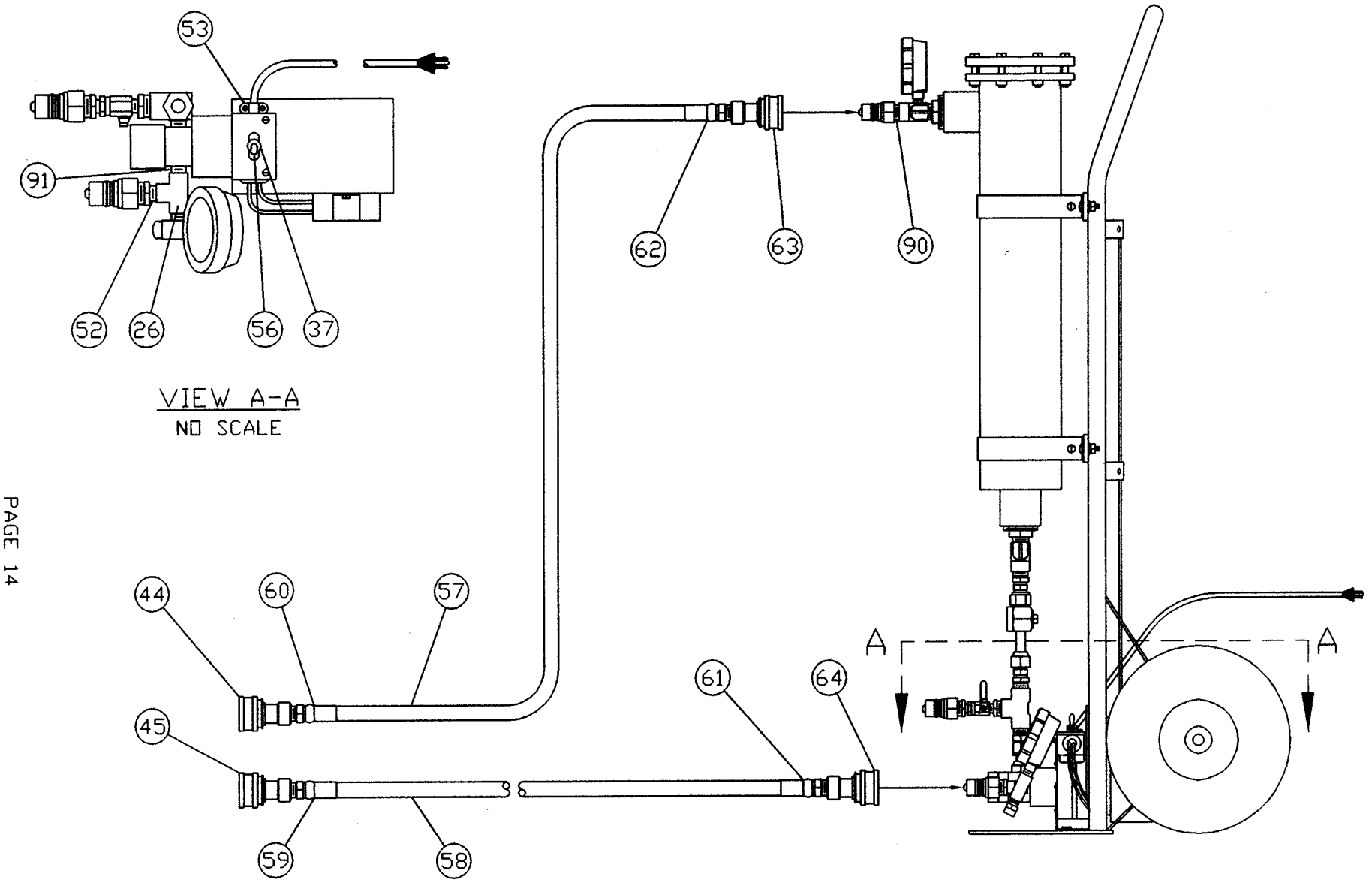
SHEET NO. 1 OF 5

BIN NO.

DWG. NO. 4G59058-M

REV. C

SIDE VIEW



VIEW A-A
NO SCALE

PAGE 14

REV	DRAWING CHANGE	BY	ECN NO.	DATE
A	ADDED VIEW A-A	R M		4/23 99

TOLERANCES UNLESS OTHERWISE SPECIFIED

FRAC. ±.020	2 PL DEC ±.010	3 PL DEC ± .003

GETZ EQUIPMENT INNOVATORS

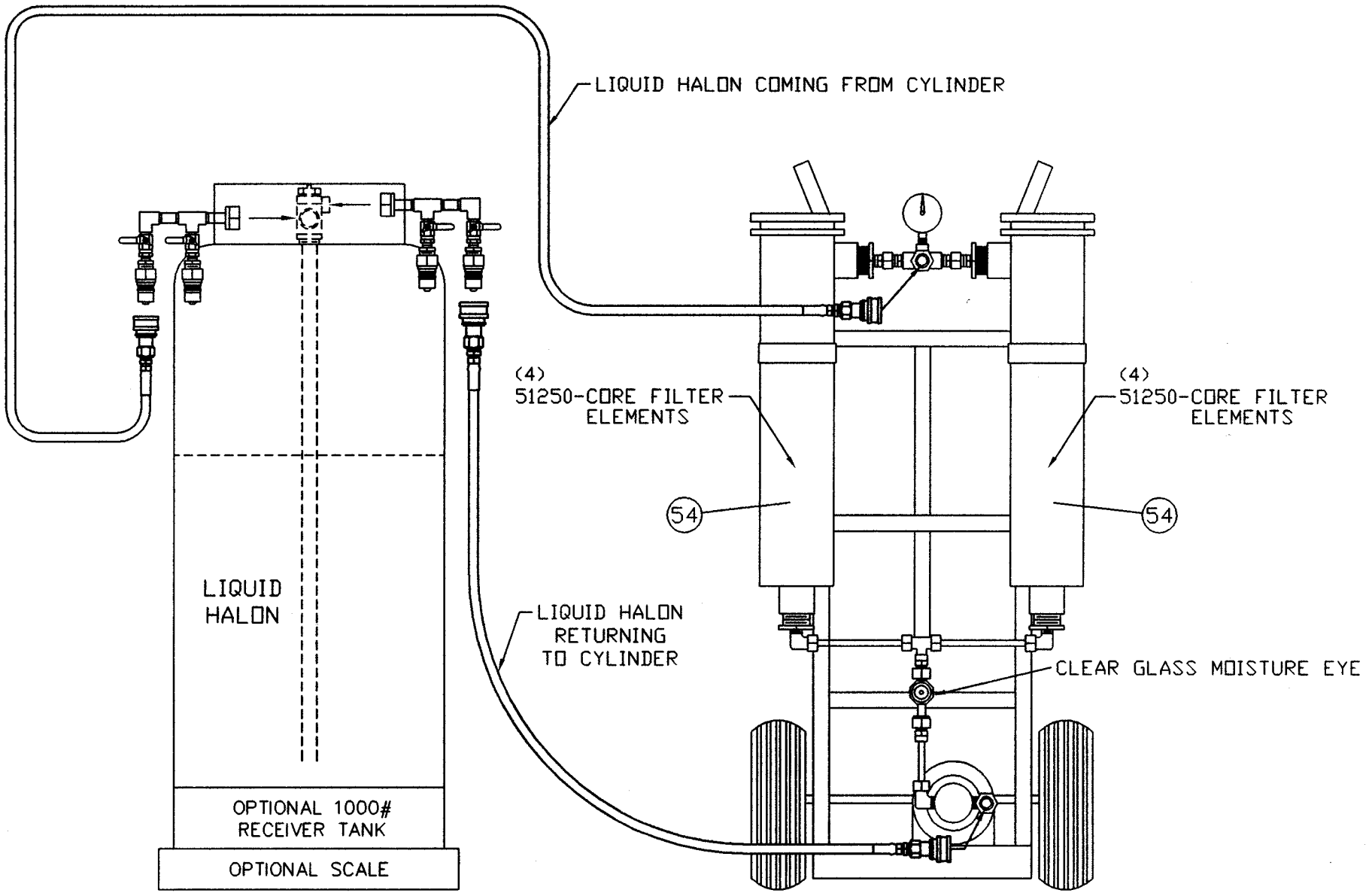
TITLE: SYS FILTRATION HALON

SHEET NO. 2 OF 5

BIN NO.

DWG. NO. 4G59058-2M

REV. A



NOTE: IFS-2 SYSTEM REMOVES MOISTURE, CONTAMINATES, ACID AND OIL FROM HALON 1301 LIQUID.

REV	DRAWING CHANGE	BY	ECN NO.	DATE
A	CHANGED TANK ADAPTERS	R M		9/20 96

TOLERANCES UNLESS OTHERWISE SPECIFIED

FRAC. ±.020	2 PL DEC ±.010	3 PL DEC ± .003

GETZ EQUIPMENT INNOVATORS

TITLE: IFS-2 SYSTEM

SHEET NO.	BIN NO.
5 OF 5	

DWG. NO.	REV.
4G59058-5M	A

MODEL IFS-2 INDEPENDENT FILTRATION SYSTEM

"CAUTION READ SETUP INSTRUCTIONS AND "WARNINGS" PRIOR TO OPERATING SYSTEM

OPERATING INSTRUCTIONS:

1. **WEAR ALL SAFETY EQUIPMENT REQUIRED**
2. **MAKE SURE TOGGLE SWITCH (ITEM 37) AND 1/4" BALL VALVE (ITEM 21) ARE IN THE OFF POSITION.**
3. **CONNECT INLET AND RETURN HOSES (ITEMS 1 & 2) TO CYLINDER NEEDING PROCESSED.**
4. **SLOWLY OPEN THE LIQUID VALVE ON THE CYLINDER TO BE PROCESSED AS YOU WATCH THE INLET PRESSURE GAUGE (ITEM 6) TO ENSURE THAT THE PRESSURE DOES NOT EXCEED 400 PSI. DO NOT OPERATE THIS SYSTEM IF PRESSURE EXCEEDS 400 PSI. (IF CONDITION EXISTS, CLOSE LIQUID VALVE ON CYLINDER AND REFER TO TROUBLE SHOOTING GUIDE PAGE 20).**
5. **OPEN THE VAPOR VALVE ON THE CYLINDER TO BE PROCESSED.**
6. **CHECK THE CLEAR GLASS MOISTURE EYE (ITEM 19) TO ENSURE THAT LIQUID HALON IS VISABLE.**
7. **WATCH THE DISCHARGE PRESSURE GAUGE (ITEM 24) AS YOU TURN THE TOGGLE SWITCH (ITEM 37) TO THE ON POSITION. IF DISCHARGE PRESSURE GAUGE EXCEEDS 400 PSI, TURN TOGGLE SWITCH TO THE OFF POSITION.**
8. **ALLOW SYSTEM TO CONTINUALLY RUN FOR 20 MINUTES, AT THIS TIME THE OPERATOR WILL NEED TO LOOK AT THE CLEAR GLASS MOISTURE INDICATOR TO SEE IF THE COLOR DOT IS GREEN AND THE COLOR OF THE HALON**
9. **REFER TO SHUT DOWN PROCEDURE PAGE 17.**

MODEL IFS-2 INDEPENDENT FILTRATION SYSTEM

SHUT DOWN PROCEDURE:

1. **CLOSE THE LIQUID VALVE ON THE CYLINDER BEING PROCESSED.**

2. **WATCH THE CLEAR GLASS MOISTURE INDICATOR (ITEM 19) UNTIL NO LIQUID" IS PRESENT.**

3. **TURN THE TOGGLE SWITCH (ITEM 37) TO THE OFF POSITION.**

4. **CLOSE THE VAPOR VALVE ON THE CYLINDER BEING PROCESSED.**

5. **UNPLUG THE POWER CORD (ITEM 38) FROM THE POWER RECEPTACLE.**

6. **THE IFS-2 SYSTEM HAS A 1/4" BALL VALVE (ITEM 21) AND A MALE QUICK DISCONNECT COUPLING (ITEM 28) THAT IS THERE TO ALLOW THE SYSTEM AND HOSES TO BE EVACUATED WITH THE HR-1301 PUMPING SYSTEM. FOLLOW PROCEDURE (7. A-E) OR (8) DEPENDING ON WHETHER YOU HAVE THE HR-1301 PUMPING SYSTEM.**

7. **A. CONNECT THE FEMALE QUICK DISCONNECT COUPLING (ITEM 25) COMING FROM THE HR-1301 PUMPING SYSTEM TO THE MALE QUICK DISCONNECT COUPLING (ITEM 28) ON THE FILTRATION SYSTEM.**

   B. CONNECT THE FEMALE QUICK DISCONNECT COUPLING (ITEM 26) COMING FROM THE HR-1301 PUMPING SYSTEM TO AN ALTERNATE CYLINDER AND OPEN THE CYLINDER VALVE.

   C. OPEN THE 1/4" BALL VALVE (ITEM 21) AND TURN THE SELECTOR VALVE (ITEM 23) ON THE HR-1301 PUMPING SYSTEM TO THE RECOVERY CYLINDER POSITION.

   D. TURN THE PUMP VALVE (ITEM 24) ON THE HR-1301 TO THE ON POSITION AND MONITOR THE PRESSURE/VACUUM GAUGE (ITEM 2) ON THE HR-1301 UNTIL A 10 IN VACUUM IS APPARENT. TURN PUMP VALVE (ITEM 24) TO OFF POSITION.

   E. CLOSE ALTERNATE CYLINDER VALVE AND 1/4" BALL VALVE (ITEM 21). DISCONNECT BOTH FEMALE QUICK DISCONNECT COUPLINGS (ITEMS 25 & 26) ON THE HR-1301 SYSTEM AWAY FROM THE ALTERNATE CYLINDER AND FILTRATION SYSTEM.

8. **DISCONNECT BOTH INLET AND RETURN HOSES (ITEMS 1 & 2) AWAY FROM CYLINDER BEING PROCESSED.**

MODEL IFS-2 INDEPENDENT FILTRATION SYSTEM

FILTER CORE REPLACEMENT PROCEDURE:

WARNING - IF THE INLET PRESSURE GAUGE (ITEM 6) IS INDICATING A PRESSURE READING,
***DO NOT ATTEMPT TO SERVICE THE FILTERS*.**

1. **VERIFY THAT THE INLET PRESSURE GAUGE (ITEM 6) IS AT A (0) PSI PRESSURE READING.**

2. **EVACUATE THE SYSTEM WITH THE HR-1301 PUMP, IF A PRESSURE READING IS INDICATED. REMOVE THE BOLTS (ITEM 41) FROM THE FILTER CANISTERS (ITEMS 4 & 5). REMOVE THE FILTER CAPS (ITEM 42) AWAY FROM THE FILTER CANISTER AND REPLACE FILTER CORES. FOLLOW PROCEDURES FOUND ON EACH REPLACEMENT FILTER CORE CANISTER.**

3. **WIPE OR VACUUM OUT ANY CONTAMINANTS IN THE FILTER CANISTERS (ITEM 4 & 5).**

4. **INSTALL THE FILTER CAPS (ITEM 42) BACK INTO THE FILTER CANISTERS (ITEMS 4 & 5). INSTALL THE BOLTS (ITEM 41) BACK INTO THE FILTER CANISTERS AND TIGHTEN SECURELY.**

MODEL IFS-2 INDEPENDENT FILTRATION SYSTEM

RECOMMENDED PERIODIC MAINTENANCE:

(MINIMUM RECOMMENDATIONS - PERFORM MORE FREQUENTLY IF REQUIRED) (REFER TO THE TROUBLE SHOOTING GUIDE, PAGE 20 IF ANY PROBLEMS ARE INCURRING)

1. **EVERY DAY, PRIOR TO OPERATING, DO A VISUAL INSPECTION OF THE SYSTEM, CHECK FOR DETERIORATED OR DAMAGED COMPONENT PARTS.**

2. **EVERY DAY THE SYSTEM IS OPERATED, INSPECT THE FEMALE QUICK DISCONNECT COUPLINGS ON THE INLET AND RETURN HOSES (ITEMS 1 & 2). REPLACE FEMALE QUICK DISCONNECT COUPLINGS IF SIGNS OF DETERIORATION ARE APPARENT.**

3. **EVERY DAY, PRIOR TO AND AFTER OPERATION BEGINS, INSPECT THE INLET AND RETURN HOSES (ITEMS 1 & 2) FOR SIGNS OF DETERIORATION. REPLACE IF APPARENT.**

4. **ONCE PER MONTH WHEN OPERATING THE SYSTEM, CHECK THE COMPLETE SYSTEM FOR LEAKS USING A HALON LEAK DETECTOR SET TO 5 OZ. PER YEAR LEAK RATE. REPAIR OR REPLACE ANY COMPONENT FOUND TO BE LEAKING**

5. **ONCE PER MONTH, RE-TIGHTEN ALL BOLTS AND NUTS SECURING COMPONENT PARTS TO THE SYSTEM.**

6. **EVERY 6 MONTHS, REPLACE THE FILTER ELEMENTS, P/N 1G0418, IN THE FILTER CANISTERS (ITEMS 4 & 5). REFER TO THE FILTER CORE PLACEMENT PROCEDURE ON PAGE 18.**

7 **EVERY 6 MONTHS REPLACE THE COLOR DOT (ITEM 43) INSIDE THE CLEAR GLASS MOISTURE INDICATOR (ITEM 19).**

MODEL IFS-2 INDEPENDENT FILTRATION SYSTEM

TROUBLE SHOOTING GUIDE:

PROBLEM:	SOLUTION:
A. HALON VAPOR PRESSURE EXCEEDS 400 PSI IN CYLINDER BEING PROCESSED.	A. PUMP OR TRANSFER SOME OF THE VAPOR PRESSURE INTO ANOTHER CYLINDER
B. HALON LEAKS FROM FEMALE QUICK DISCONNECT COUPLINGS (ITEMS 1 & 2).	B. REPLACE O-RINGS ON THE INSIDE OF THE QUICK DISCONNECT COUPLING.
C. COLOR DOT (ITEM 43) IS BROWN OR WHITE.	C. REPLACE MOISTURE EYE, P/N 1G58800
D. COLOR DOT STAYS YELLOW AND WILL NOT TURN GREEN.	D. REPLACE THE (8) FILTER CORES P/N 1G0418
E. HALON LEAKS FROM LIQUID OR VAPOR ADAPTER ASSEMBLIES	E. REPLACE ROUND TEFLON GASKET (ITEMS 69 & 70), P/N 3G58820, IN BRASS NUT.
F. RELIEF VALVE (ITEM 29) EXHAUSTS HALON AFTER PUMP STARTS.	F. MAKE SURE VAPOR VALVE IS OPEN ON CYLINDER BEING PROCESSED
G. RELIEF VALVE (ITEM 29) EXHAUSTS HALON.	G. VAPOR PRESSURE IN CYLINDER BEING PROCESSED IS ABOVE 400 PSI.
H. HALON PUMP SOUNDS NOISY	H. MAKE SURE LIQUID VALVE IS OPEN ON CYLINDER BEING PROCESSED. CHECK CLEAR GLASS MOISTURE INDICATOR FOR LIQUID. FILTER CORES (P/N 1G0418) NEED REPLACED.

MODEL IFS-2 INDEPENDENT FILTRATION SYSTEM

RECOMMENDED MAINTENANCE KIT, P/N 3G59133, INCLUDES THE FOLLOWING ITEMS

QUANTITY	PART #	DESCRIPTION
8 EACH	1G0418	FILTER CORE ELEMENTS
4 EACH	3G58820	TEFLON WASHER .375 CGA NIP
4 EACH	3G58801	O-RING SEALS FOR FEMALE QUICK DISCONNECT COUPLINGS
1 EACH	1G51516	HALON COMPATIBLE O-RING SEAL LUBRICATE