

Remote Control

RCM SERIES 700



ELECTRO-HYDRAULIC

FAIL-SAFE ACTUATOR

INSTALLATION AND OPERATING INSTRUCTIONS

PRINCIPLE OF OPERATION

The RCM700 actuator consists of a hydraulically prepped Remote Control actuator, a self contained electrically operated 1/2 hp motor/ hydraulic pump/reservoir/2-way normally open solenoid and an end of stroke limit switch used to shut off the motor at end of actuator travel.

When used for ON/OFF applications, an end of stroke limit switch is used to switch off the hydraulic pump/motor when the actuator has reached full energized travel.

CAUTION

Improper setting of the end of stroke travel limit switch cam will result in the pump not shutting off at the end of full travel.

When the RCM700 is energized , the 2-way solenoid closes and the pump forces oil into the actuator compressing the springs and stroking the actuator to the energized position. When the RCM700 is de-energized the 2-way solenoid opens this allows the actuator springs to take over, pushing the oil out of the actuator and back into the reservoir, the actuator is now in the fail safe position.

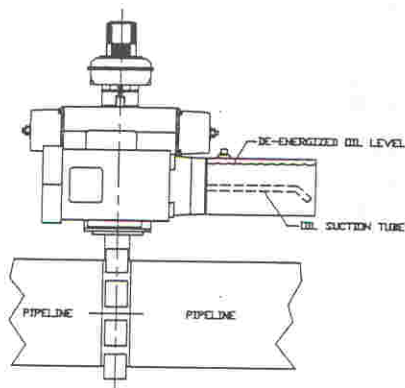
NOTE

If the RCM700 has been fitted with the exclusive Remote Control M-1 manual override handwheel, all electrical power must be turned off prior to manual operation of the actuator. Also, be certain that the M-1 manual override is returned to the NEUTRAL position as indicated on the sight tube of the M-1 before re-applying electrical power, and returning to normal operation.

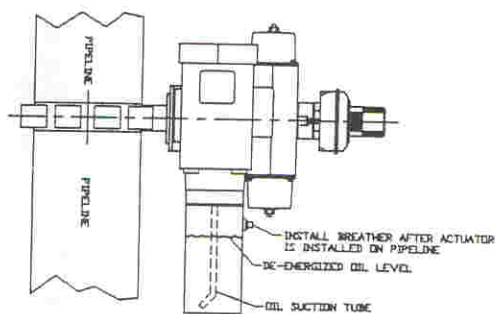
INSTALLATION

The RCM SERIES 700 actuator can be mounted in a horizontal or vertical pipe line. When mounted in a vertical pipe line, the reservoir must be pointed down toward the floor with pump motor pointing up. When mounted in a horizontal pipe line be certain that it is being installed as ordered from the factory, (is the stem of the valve pointing up, down or to the side?) this is important do to the orientation of the pump suction tubes contained within the reservoir.

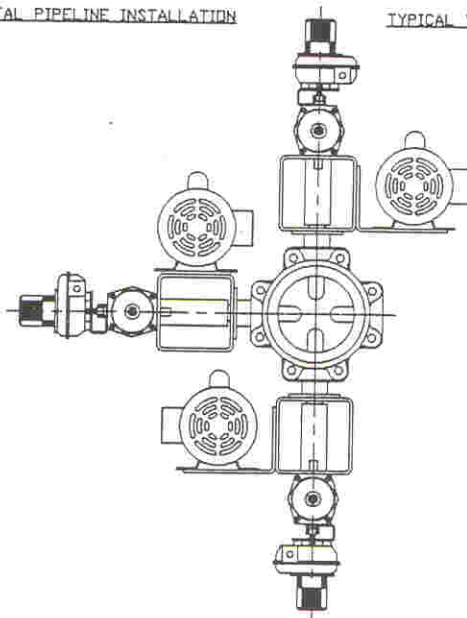
After properly installing the valve and actuator in the pipeline, then remove the shipping plug and install the black breather on the reservoir in the port closest to the motor.



TYPICAL HORIZONTAL PIPELINE INSTALLATION



TYPICAL VERTICAL PIPELINE INSTALLATION



VARIATIONS IN HORIZONTAL PIPELINE INSTALLATION

MAINTENCE

An overall visual inspection once a month is good practice. With the RCM700 de-energized, check fittings for tightness and verify that the oil level in the reservoir is at approximately 1" below the breather. Add oil if necessary.

RECOMENDED OIL

Shell tellus (R) oil #32

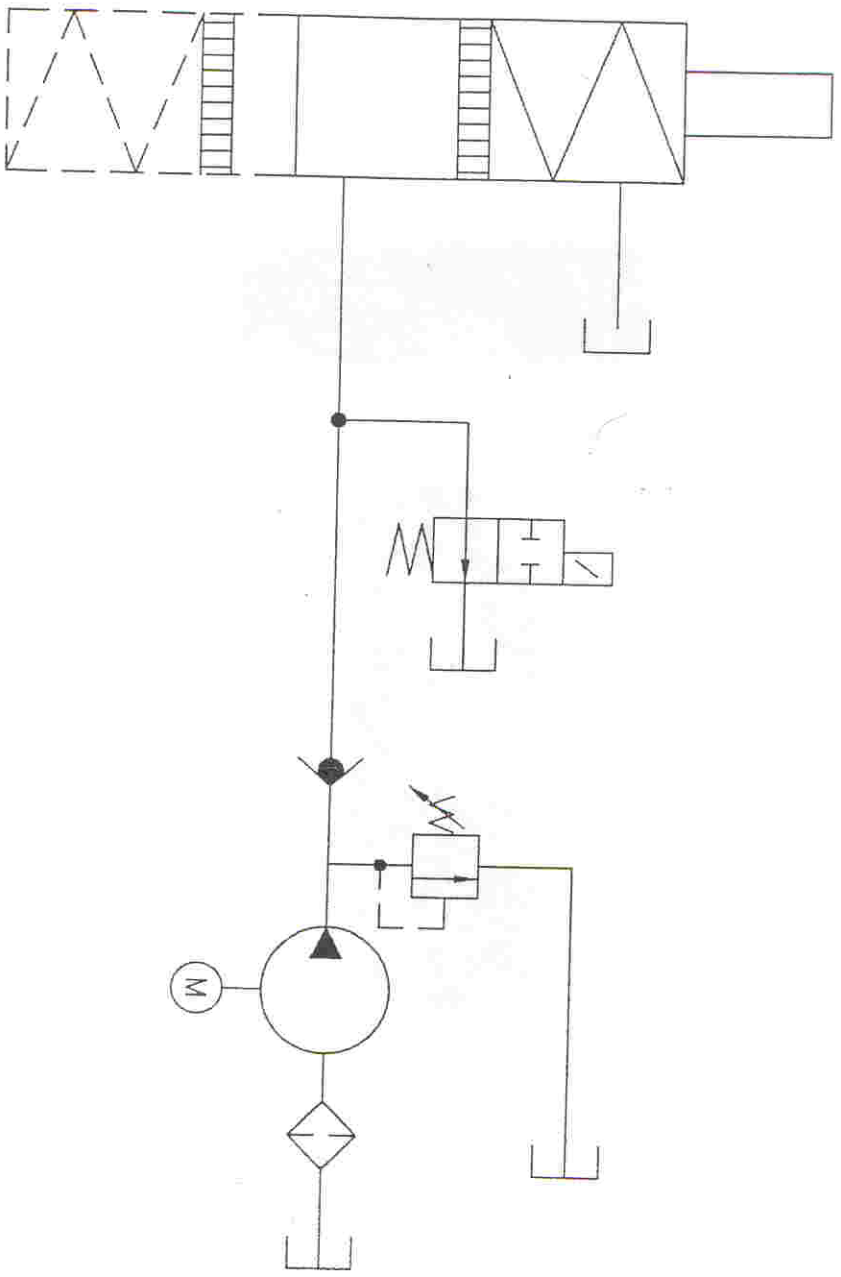
Range: -20 to 175 degrees fahrenheit

Manufacture: Shell Oil Company

P.O.Box 4320

Houston, TX 77210

Phone: 713-241-2252



NOTES :

- 1) DASHED LINES REPRESENT DUAL PISTON ACTUATOR

CONTROL SCHEMATIC
 RC ACTUATOR / MONARCH HYDRAULIC PUMP

SCALE: _____ APPROVED BY: _____

DATE: 10/14/96 _____

PROGRAM BY: JT _____

REVISION: _____

FORMING NUMBER: _____

REVISION: _____

REMOTE CONTROL, INC.
 P.O. Box 275, North Kingstown, RI 02852



INSTALLATION & OPERATING INSTRUCTIONS

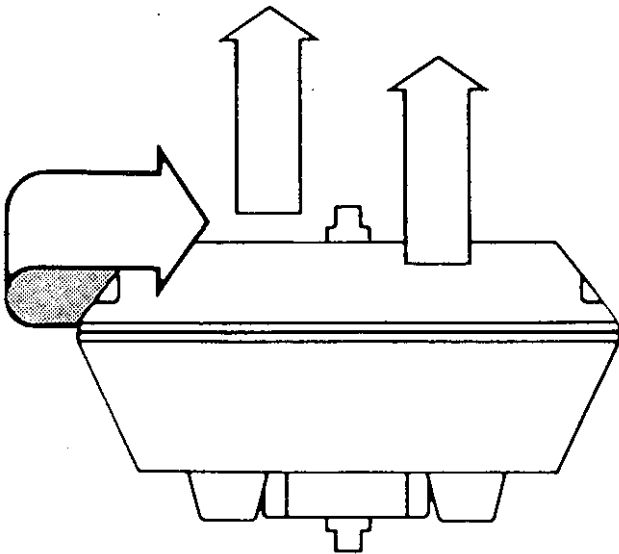
WESTLOCK ACCUTRAK 1000, 2000 *With Mechanical Switches*

IMPORTANT: If the AccuTrak is in the field already mounted on an actuator and valve, please follow the field wiring instructions on the reverse side.

INSTALLATION:

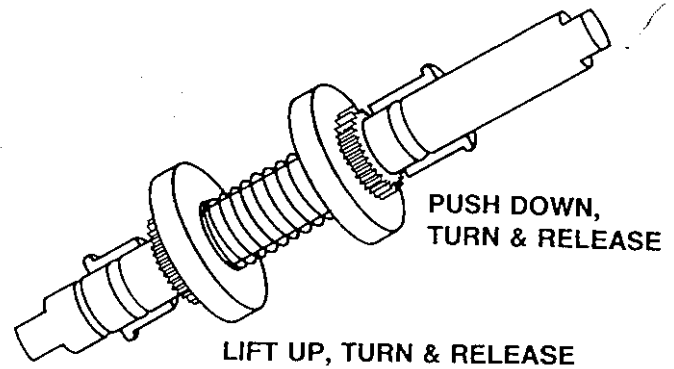
WARNING: The AccuTrak should always be handled with care when the cover is removed and wired to an electrical power source.

1. Attach the proper mounting bracket and adapter to the AccuTrak housing with the hardware provided.
2. Operate the actuator to full closed position.
3. Attach the AccuTrak and mounting bracket to the actuator.
4. Remove screws in AccuTrak housing, twist cover approximately 45° and lift straight up. (Wiring diagram-inside of AccuTrak cover.)

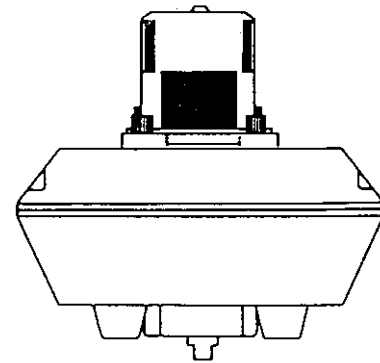


TWIST COVER 45°, THEN LIFT STRAIGHT UP

5. To set switches, lift bottom cam and turn until switch is activated and then release. Spring will push cam back onto the splined shaft. Operate the actuator to the opposite extreme, push down on the top cam and turn until the open switch is activated.



6. Operate actuator from one extreme to the other several times to check switch operation.
7. Replace housing cover. Confirm that you have noted the final position of the valve (full-open or full closed).
8. Install the Beacon on the the AccuTrak cover following the instructions included with the unit. Make sure the Beacon visual display coincides with the position of the valve



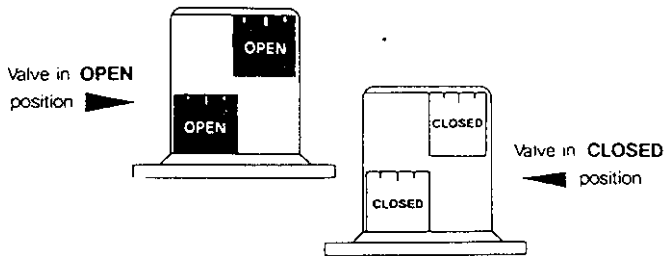
9. Unit is now ready for automatic operation.

If any assistance, please feel free to call Westlock Controls at (201) 794-7650

FIELD WIRING

(IF ACCUTRAK IS ALREADY ATTACHED TO A VALVE AND ACTUATOR)

- Note graphic display of the Beacon and circle one of the coinciding drawings shown below.

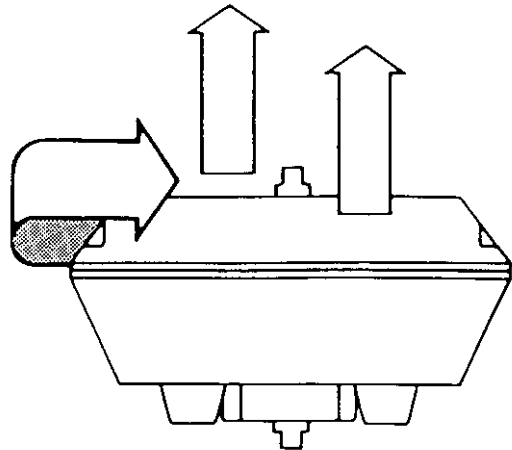


STANDARD FLOW ARRANGEMENTS

PART NO.	ARRANGEMENT NUMBER
90° ROTATION	
BM3-1	1
	3
BM3-3	5
	7
180° ROTATION	
BM3-7	9
	1
BM3-9	3
	5

- Remove the Beacon.
- Remove the screws in the AccuTrak housing, twist cover approximately 45° and lift straight up.

- The proper wiring diagram for your unit is shown on the inside of the AccuTrak cover. Please follow carefully.



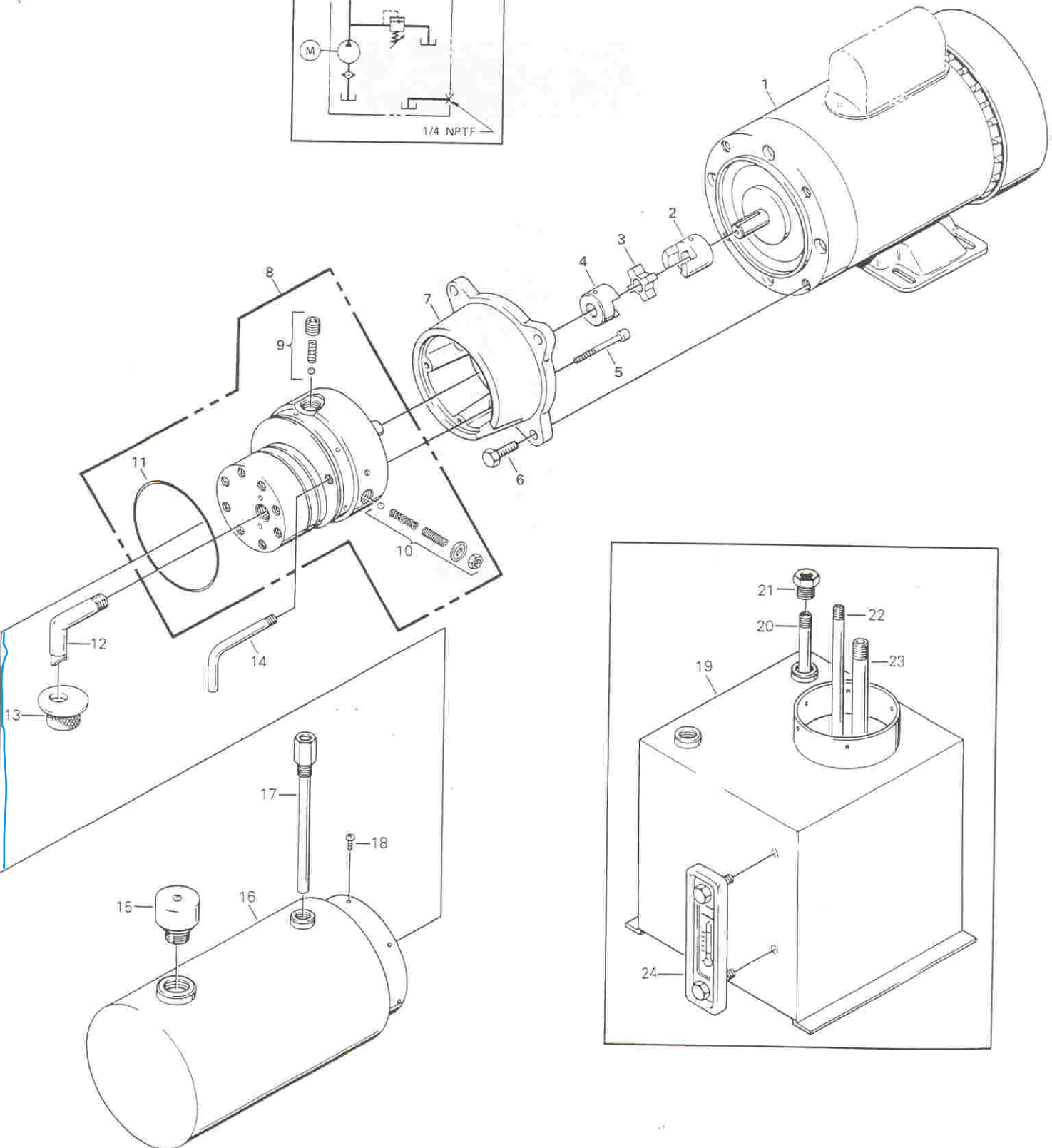
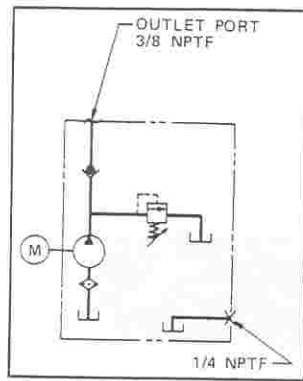
- Complete the electrical wiring in accordance with local and National Electrical Codes. The ground wire should be secure under the green screw. Check all screws for tightness. If the installation is in a hazardous area, all electrical leads must be sealed with an approved compound, in accordance with local and National Electrical Codes.

Always check the nameplate to make sure the NEMA ratings coincides with the application.

NOTE: For conformance to U.L. requirements, all conduit runs in Class I, Division 1 hazardous locations must have a sealing fitting connected within 18 inches of the enclosure.

CAUTION: TO PREVENT IGNITION OF HAZARDOUS ATMOSPHERES, REPLACE COVER BEFORE ACTUATING THE ELECTRICAL CIRCUITS. KEEP COVER TIGHTLY CLOSED WHEN IN OPERATION.

- Replace housing cover and the Beacon. Confirm that the Beacon graphic display coincides with the display originally circled in Step 1.
- If any assistance is required please feel free to call Westlock Controls at (201) 794-7650.



Ref. No.	Part No.	Description	No. Req.
1	*****	MOTOR, Electric, 5/8" shaft, AC (consult factory)	1
2	01139	COUPLING, 5/8" Bore 3/16" Keyway (motor side)	1
3	01603	COUPLING SPIDER, 33/64" Bore	1
4	01189	COUPLING, 1/2" Bore	1
5	07760	SCREW, Socket Head Cap 1/4-20 x 1" (use with 1605 permanent casting housing)	4
	07745	SCREW, Socket Head Cap 1/4-20 x 2" (use with 1605 sand casting housing)	4
	07818	SCREW, Socket Head Cap 1/4-20 x 3" (use with 1615 housing)	4
6	07817	SCREW, Hex Head Cap 3/8-16 x 7/8"	4
7	01605	HOUSING, Pump/Motor Adapter (2-5/32" long)	1
	01615	HOUSING, Pump/Motor Adapter (3-11/32" long)	1
8	03148	PUMP ASSEMBLY, Gear Code 62	1
	02639	PUMP ASSEMBLY, Gear Code 51	1
	02637	PUMP ASSEMBLY, Gear Code 43	1
	02635	PUMP ASSEMBLY, Gear Code 42	1
	02638	PUMP ASSEMBLY, Gear Code 05	1
	02636	PUMP ASSEMBLY, Gear Code 03	1
9	00075	• PARTS KIT, Check Valve (main)	1
10	03766	• PARTS KIT, Relief Valve	1
11	02352	• O-RING, Industrial (3-5/8" x 3-7/8" x 1/8")	1

Ref. No.	Part No.	Description	No. Req.
		FOR FURTHER BREAKDOWN OF PUMP ASSEMBLY, SEE PUMP SECTION	
12	01209	TUBE, Filter, suction 3/8 NPT 90 deg	1
13	01134	SCREEN, Filter (suction)	1
14	01274	TUBE, Return (1/8 NPT)	1
15	01143	PLUG, Vent (plastic)	1
16	06878	RESERVOIR, 6" Dia. x 9", 217 in ³ usable	1
	06879	RESERVOIR, 6" Dia. x 13-1/2", 301 in ³ usable	1
	06880	RESERVOIR, 6" Dia. x 18", 433 in ³ usable	1
17	01535	TUBE ASSEMBLY, Downspout, return (1/4 NPT 1 M x F)	1
18	07703	SCREW, Thread Forming 10-24 x 3/8"	6
19	06881	RESERVOIR, 10" x 10" x 10", 693 in ³ usable	1
	06882	RESERVOIR, 10" x 12" x 12", 1155 in ³ usable	1
	06883	RESERVOIR, 10" x 14" x 14", 1386 in ³ usable	1
20	01635	TUBE, Return, 3/8 NPTF x 9" (plastic)	1
21	01807	ADAPTER, 3/8-18 NPSM (female) x 3/4 NPTF (male) x 3/8-18 NPSM (female)	1
22	01523	TUBE, Return, (1/8 NPT)	1
23	01522	TUBE, Filter Suction 3/8 NPT (plastic)	1
24	01436	GAUGE, Sight-Temperature	1



U.S.A.:
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