

**Methylene Chloride Still
BM170 / BM175**

Impact Test Equipment Ltd
www.impact-test.co.uk & www.impact-test.com

User Guide
User Guide
User Guide

**Impact Test Equipment Ltd.
Building 21 Stevenston Ind. Est.
Stevenston
Ayrshire
KA20 3LR**

T: 01294 602626

F: 01294 461168

E: sales@impact-test.co.uk

Test Equipment Web Site

www.impact-test.co.uk

Test Sieves & Accessories Web Site

www.impact-test.com

OPERATING INSTRUCTIONS

METHYLENE CHLORIDE RECOVERY UNIT

| |
|-----------------|
| CONTENTS |
|-----------------|

| | |
|-----------------------------------|---|
| INSTALLATION AND OPERATION | 2 |
| CONTAMINATION OF CLEAN TANK | 2 |
| COIL ASSEMBLY | 3 |
| WATER CHAMBER | 3 |
| FAULTS | 3 |
| SLOW RATE OF RECOVERY | 3 |
| ERRATIC RECOVERY | 3 |
| SERVICE SCHEDULE | 3 |
| GENERAL SERVICE | 4 |
| ADDITIONAL IMAGES | 5 |



INSTALLATION AND OPERATION

1. Check for damage in transit and install in a firm and level position.
2. Connect a water supply with a control valve to the low level connection on the condenser coil using a 10mm internal diameter flexible water hose. Ensure an adequate and constant water supply of about 3 litres/min.
3. Connect a flexible water hose (10mm internal diameter) drain pipe to the high level connection on the condenser coil.
4. Connect an electric supply to the thermostatically controlled 3kW element, line, neutral and earth terminals through switched and fused connections rated for S902/S905 at 13 amps supply. Check the thermostat setting is at 85-90c for a recovery rate of 9l/hr.
5. Fill the Hot Water Reservoir. Add cold water until this chamber is nearly full and check this level. Water should always be visible in the reservoir.
6. Introduce dirty Methylene through the high level 'Dirty Tank' filler funnel and valve.
7. Open the flow control valve on the dirty tank. Solvent will flow into the distillation unit. This valve must always be closed when the distillation unit is not in operation. (i.e. Heating element switched off)
8. Switch on the electric supply. Warming of the outside of the water chamber will indicate the element is functioning.
9. Turn on the water supply to the condenser coil. Cooling water flow to be adjusted at about 3l/min.
10. The flow of clean solvent is observed through the sight glass of the low level clean tank.

CONTAMINATION OF CLEAN TANK

- (a) Failure to close the dirty flow valve when the heating element is switched off may result in the build up of the normal static level within the distillation chamber with contamination of the clean tank when the element is switched on.
- (b) Rapid opening of the clean drain off valve, especially with a full clean tank can cause siphoning of the dirty into the clean.

COIL ASSEMBLY

The cooling water should run steadily through the coil without restriction. Normal flow rate is 3 litres per minute.

WATER CHAMBER

Loosen the bottom drain plug and check that the water is clean.

FAULTS

Faults arising during service are generally classified as follows: -

- (a) Slow rate of recovery
- (b) Erratic recovery
- (c) Contamination of the clean tank

SLOW RATE OF RECOVERY

Increase the thermostat setting to a higher setting and observe any improvement in the rate of distillation as the water chamber temperature rises. If the rate of distillation reaches an acceptable amount without steam arising reset the thermostat to this setting.

ERRATIC RECOVERY

Venting of solvent vapour generally indicates insufficient water through the coil or problems with the Element/Thermostat.

SERVICE SCHEDULE

1. Generally, solvent recovery units, comprising a distillation column and twin tanks mounted on a common frame are robust, simple and trouble free packaged assemblies. Responsibility cannot be accepted for the malfunction of units altered from the original design or not entirely of our manufacture.

GENERAL SERVICE

1.1 SIGHT GLASS

- (a) When the tanks are empty check screw holes in blocks clear through into the tanks.
- (b) Remove the plug or fitting on the top block and check that the tubes are clean and clear to the bottom.
- (c) Check that the gland nuts at the top and bottom of the glass are tight and that the seals are in good order.

1.2 TANKS

Clean out internally. If necessary remove the tank from the frame and invert.

12. At a regular period when distillation of solvent has been completed, but with the column still warm; draw off the waste elements through the drain valve.

13. Heavy residues which collect in the top 'Dirty Tank' must be cleaned out regularly either with the Tanks 'in-situ' or removed from the Frame.

14. The thermostat will maintain control of the distillation temperature until the electric supply is either switched off, or until a fresh supply of solvent is put into the Dirty Tank, when distillation will continue.

REGULAR MAINTENANCE

Weekly:

Check the reservoir water level regularly and top up as required.

Annually:

- (a) Drain the water chamber through the central plug under the distillation unit, flush through and refill as before.
- (b) Heater Element may be removed by unscrewing.

Attention to these instructions will ensure your satisfaction and efficient working.

ADDITIONAL IMAGES

