

Ethanolamines/Glycol Ethers In Plant Training (IPT)

Section Number :7A
Issue Number :1.3
Origination Date :08-22-91
Revision Date :12-23-97
Section Test :7

Author: Mike Viator

Glycol Ethers Purification T-130

Answers:

1. Physically locate.

- | | |
|---------------|---------------------------------|
| A. T-130 | H. D-130 |
| B. E-131 | I. E-130 steam control loop |
| C. DV-132 A/B | J. T-130 bottoms control loop |
| D. PSV-T-130 | K. T-130 overheads control loop |
| E. VP-130 | L. D-130 level control loop |
| F. E-130 | M. E-132 |
| G. P-130 A/B | N. P-132 A/B |
| | O. D-131 |

2. State the purpose of T-130.

T-130 is the DI finishing tower. Its basic function is to separate DI product (either DPM or DB) from the crude reactor flow.

3. State what type reboiler T-130 has and how it works.

T-130 has a force fed pump through reboiler. It requires pressure from the bottoms pumps to circulate.

4. State what type steam is used on E-130.

E-130 uses 475# steam.

5. Explain how you would adjust recirculation on E-130.

Use the manual valve located closest to the tower on the outlet of the reboiler.

6. State what happens if you loose recirculation to the reboiler. What should you do?

The heat from the steam is not spread out among lots of product and the product that is in the reboiler will burn and foul the tubes of the reboiler. To prevent this the steam should be closed off when the recirculation falls below a certain flow.

7. **Explain what D-130 is and what its purpose is.**
D-130 is the condensate pot for E-130. It holds a condensate level from the reboiler before the condensate goes to the condensate header. This maximizes heat transfer to the reboiler.
8. **State where the condensate out of E-130 goes.**
High pressure condensate header.
9. **Explain the difference between a reboiler and a condenser.**
A reboiler is used to heat the product up. A condenser is used to cool the product down, turn it back to a liquid.
10. **State how many condensers are used on T-130 and what they are called.**
One condenser is used on T-130. It is E-131.
11. **Explain what type trays or packing T-130 has.**
T-130 has two sections of Koch Seltzer Reflux.
12. **State where the reflux on T-130 comes from. State whether it is external or internal.**
T-130 gets its reflux from D-131. This type of reflux is known as external reflux.
13. **State where the overheads on T-130 can go.**
T-130 overhead flow can go to DV-132A or B, or can also go to rerun.
14. **State how many feed points are on T-130.**
One feed point between the two sections of packing.
15. **Explain how the vacuum is maintained on T-130.**
The vacuum on T-130 is maintained by EJ-130 or EJ-140. At times we use one ejector to pull both columns.
16. **State what is used as a back up for EJ-130 or EJ-140.**
EJ-140 is used as a backup for EJ-130 and vice versa.
17. **Explain the control scheme for T-130 pressure.**
There is a control valve in the line to EJ-130/EJ-140. When the pressure is not low enough, the valve opens more. When the pressure is below set point, the valve closes back.
18. **State what the PSV is set at.**
The PSV is set at 50 PSIG.