

2. Column Activation Procedure

2.1 Prepare Each Column:

1. Close all hand valves.
2. Disconnect all piping/filters from column and remove top hand valve.
3. Install heating mantle.
4. Install nitrogen supply to bottom hand valve.
5. Install vent tube on top of cylinder using ¼" swage stub and place in fume hood.

2.2 Alumina Columns:

1. Open bottom hand valves.
2. Set heating mantle to 400 degrees Celsius.
3. Start nitrogen purge between 5 and 25 liters per minute.
4. Continue purge for six hours.
5. Remove heating mantle.
6. Continue cooling purge for two hours, or until column is cool.
7. Install top hand valve in open position while still purging. Close top hand valve. Close bottom hand valve. Stop purging.
8. Reinstall all pipe work and filters.
9. For more information refer to section 3, **System Purging Procedure.**

2.3 Copper Catalyst Columns:

1. Open bottom hand valves.
2. Set heating mantle to 250 degrees Celsius.
3. Start nitrogen purge between 5 and 25 liters per minute.
4. Continue purge for three hours.
5. Replace nitrogen source with forming gas source (5% hydrogen in nitrogen) at 25 liters per minute.
6. Purge gas supply line of any room air.
7. Continue heating 250 degrees Celsius while purging for two hours.
8. Replace forming gas source with nitrogen source between 5 and 25 liters per minute.
9. Purge gas supply line of any room air.
10. Remove heating mantle.
11. Continue cooling purge for two hours, or until column is cool.
12. Install top hand valve in open position while still purging. Close top hand valve. Close bottom hand valve. Stop Purging.
13. Reinstall all pipe work and filters.
14. For more information refer to section 3, **System Purging Procedure.**