



T-45 MP BD column loading procedure

Following steps are recommended for resin loading and start up operation.

- 1) We recommend 1: 2.5 or 1: 3 diameter to height ratio for the column for Biodiesel purification application.
- 2) Check the interior of the column for cleanliness (no dust , debris in the column)
- 3) Check bottom and top distribution system of the column. It should be free from any blockages.
- 4) Check all valves on the column.
- 5) Charge dry resin up to 40 % of column height.
- 6) Back wash resin bed with the Methanol at 1-2 bed volume per hour. After 4 bed volumes of Methanol close bottom valve. Leave bed soaked with Methanol for 4-6 hours. This will allow resin beads to swell properly through out the bed.
- 7) Slowly drain excess Methanol from the resin bed up to the top of the resin bed. (Initial outlet methanol could be darker in color due to organic acids from the resin. If required pass 1-2 bed volume of methanol through the resin to clean the resin bed. Send all methanol fraction to recovery column)
- 8) Start service flow with crude biodiesel. Keep service flow rate of 3 – 5 bed volume. Initial few bed volumes would content higher percentage of Methanol (replaced from the resin bed)
- 9) Start monitoring quality of the purified biodiesel at desired intervals.