



EFFICIENT EXTRACTION TECHNOLOGY

FINE CHEMICALS

THE PROBLEM

The existing operation was carried out conventionally in batch mode. The solvent to feed ratio was kept 1 and given 4 washes which increased the operation time, energy with loss of solute in raffinate (0.15%).

SOLUTION BY FABEX

The batch operation was replaced with the continuous operation by utilizing the Asymmetric Rotating Disc Contactor (ARDC). The ARDC has the mixing and separation compartments which creates dispersion and separates the phases respectively in a counter current mode. The trials were conducted on the lab ARDC at various operating conditions. The optimized conditions result in the increased extraction efficiency with reduction in energy consumption, solvent requirement, hold up volume, equipment footprint, operating cost and safer operation. The extraction efficiency was achieved up to 99.5%.

ACHIEVEMENTS

- Increased efficiency to 99.5%
- Single equipment
- Reduce solvent quantity
- Reduction in cost, time & energy
- Increase in production rate
- Less handling & losses

ASYMMETRIC ROTATING DISC CONTACTOR (ARDC)