

Pharmaceutical Manufacturing

Pharmaceutical manufacturers need ultrapure water that meets USP standards reliably and affordably.

Haliant Technologies supplied this double-pass reverse osmosis system to a major multi-national pharmaceutical producer. This system includes 316L stainless steel sanitary piping and fittings and produces product water of less than 1 us/cm conductivity.

Haliant has supplied similar ultrapure systems for pharmaceutical manufacturers using electro-deionization (EDI) technology as post-treatment of the reverse osmosis permeate. EDI systems from Haliant Technologies consistently yield product water with greater than 10 megohm resistivity.



PHARMACEUTICAL MANUFACTURING

Treated Water Results	Raw Water	Treated Water
Turbidity	< 5 NTU	< 0.01 NTU
Total Suspended Solids (TSS)	> 25 mg/L	> 6 - log removal
Biological Oxygen Demand (BOD)	< 25 mg/L	> 6 - log removal
Total Dissolved Solids (TDS)	< 1,000 mg/L	< 0.5 mg/L

