

Q:

What type of pretreatment does RO need?

A:

Typical pretreatment consists of:

Coarse filtration (~80 micron) to remove large materials - City water has typically been filtered to meet this standard.

Hypochlorite addition to reduce biofouling potential – City water has typically been treated by chlorine or chloramines for this purpose.
Fine filtration using multimedia filters or clarification.

Carbon Filter or Bisulfite addition to reduce residual free chlorine.
Water Softener or Antiscalant to remove hardness and prevent scaling.
Cartridge 5 Micron Sediment filter upstream of the feed pump and membranes

Additional pretreatment considerations: Water with higher particle contents, measured by silt density index (SDI), require a higher degree of pretreatment to achieve acceptable quality. Systems using groundwater as the feed source frequently operate without hypochlorite and bisulfite addition. Waters with high hardness may require softening and/or acid addition. Activated carbon may be needed for water with high organic content.