



# DEMINERALIZATION WATER TREATMENT

## REMOVAL OF MINERALS FROM WATER

Demineralization is a purification process used to remove most or all minerals and salt ions such as calcium, sodium and magnesium from water.

DS21's Demineralization Water Treatment Package is used to remove contaminants in raw water by using equipment like Ion-Exchanger and Membrane-EDI.

## TECHNOLOGIES OVERVIEW



### ULTRAFILTRATION (UF)

Ultrafiltration is a water treatment process that uses a hollow fiber or a sheet membrane to mechanically filter water containing very small particulate. An ultrafiltration drinking water system uses super fine membrane technology to filter particulate down to 0.01 microns.



### REVERSE OSMOSIS (RO)

Reverse osmosis is a filtration process using pressure applied to a semipermeable membrane with a high concentration of solutes to overcome the natural osmotic pressure. This pressure forces water molecules to move in the opposite direction, from a high to low concentration – effectively filtering out impurities.



### ELECTRODEIONIZATION (EDI)

Electrodeionization (EDI) is a continuous, chemical-free process of removing ionized and ionizable species from feedwater using DC power. EDI is typically used to polish reverse osmosis (RO) permeate, and is a smart alternative and effective replacement of conventional mixed bed ion exchange (IX).



## DEMINERALIZATION WATER SYSTEMS



**EXPLORING SOLUTIONS FOR PURIFIED WATER?  
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