

### Case Study of Various Configurations for RO Process

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Water shortage problem has been issued worldwide for the past decades. Of many desalination processes, RO process is the most spotlighted and used recently for the purpose of water production in industry. However, RO process is still necessary to optimize for reducing energy requirement and cost since high pressure pump needs significantly large energy. In this study, meaningful combinations limited to two-pass and two-stage in module configurations are selected and optimized based on theoretical models. For verifying the developed model, experimental data are used. Through this research, algorithm for selecting proper configurations for RO process is developed depending on operation objectives and circumstances.