

## 산소공장 전처리 흡착탑의 최적 탈착조건 Pilot Plant 테스트 결과

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The optimum operation condition for molecular sieve adsorption tower of cryogenic oxygen plant to save the energy cost were studied by using a pilot scale temperature swing adsorption tower.

In this study, the effective adsorption capacity and pore properties of commercially available active alumina and MS-13X were measured and characterized.

The desorption profiles of CO<sub>2</sub> was measured at various regeneration temperature.

For the regeneration of MS-13X, CO<sub>2</sub> was almost desorbed at 110°C .

This temperature was lower as 30°C than that of operation condition at real plant.

By installation and operation of by-pass line during the cooling cycle of regeneration of adsorption tower, electric energy could be saved as 422kWh/cycle and saved the operation cost.