

ACID GAS TREATMENT

ABSTRACT

Apparatus and methods for treating acid gas, which utilizes multi-stage absorption cycle of ammonia desulfurization to treat acid tail gas after pre-treatment of the acid gas, thereby
5 achieving the purpose of efficient and low-cost treatment of acid tail gas. The parameters of the acid tail gas may be adjusted by a regulatory system such that the enthalpy value of the acid tail gas is in the range of 60-850 kJ/kg dry gas, for example, 80-680 kJ/kg dry gas or 100-450 kJ/kg dry gas, to meet the requirements of ammonia desulfurization, and achieve
10 the synergy between the acid gas pre-treatment and ammonia desulfurization. Furthermore, hydrogen sulfide may be converted into sulfur/sulfuric acid plus ammonium sulfate at an adjustable ratio.

[Figure 1]