

## TKK company

The role of new and more effective technologies and processes for removing acid gases ( $\text{CO}_2$ ,  $\text{H}_2\text{S}$ ) and recovering sulfur from hydrocarbon streams continues to increase globally. This is due to the production of low sulfur gasoline and diesel, an increased tendency of crude and natural gas production and tighter regulations on  $\text{SO}_2$  emissions for refineries, gas and petrochemical plants. Refineries and petrochemical plants normally deal with strong acid gases and are in relatively good shape in terms of efficiency of acid gas removal and sulfur recovery. However, a substantial number of gas plants, that treat natural gas with a very high  $\text{CO}_2/\text{H}_2\text{S}$  ratio are faced with problems related to a low concentration of  $\text{H}_2\text{S}$  in acid

gas. This causes low sulfur recovery in sulfur units. The installation of tail gas treating units is costly and some gas plants consider additional amine units for the enrichment of acid gas that feeds the SRU. TKK is committed to the concept of the HIGHSULF™ amine process and has shown that this process, based on generic methyldiethanolamine (MDEA) as a solvent, matches the requirements of gas plants that need to enrich acid gas with  $\text{H}_2\text{S}$ . An enrichment of the acid gas leads to a substantial reduction of hydraulic loading of the SRU, increasing the level of sulfur recovery and accordingly, a reduction the level of  $\text{SO}_2$  emissions.

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