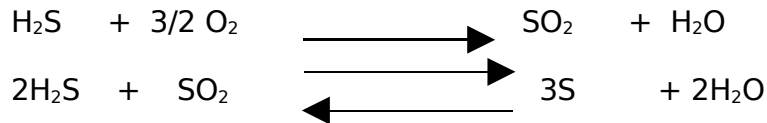


4 SULPHUR RECOVERY UNIT

Process Description NOT IN USED

Sulphur recovery process (claus process) involves the combustion of a part of hydrogen sulfide present in the sulphur rich feed gas to form sulphur dioxide and the sulphur dioxide in turn reacting with the remaining part of H₂S to form elemental sulphur.



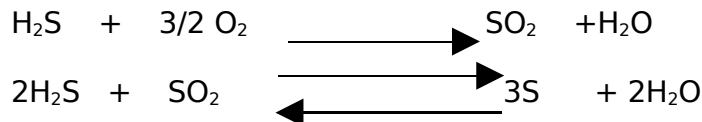
Sulphur recovery is a two step process.

Thermal stage wherein 60% of the total sulphur in feed is recovered .

Two catalytic stages to achieve a recovery of 94% of the sulphur present in the feed sour gas The remaining sulphur in the form of H₂S is burnt in the incinerator reactor so that only sweet gas passes to the atmosphere.

Reaction Kinetics of SRU Plant

The reaction kinetics for **SRU** consists of combustion of a part of hydrogen sulphide present in the sulphur rich feed gas to form sulphur dioxide and in turn reacting with the remaining part of H₂S to form elemental sulphur.



$$W_T = (PV / RT) * M_{\text{avg}} \xrightarrow{\hspace{1cm}} \text{outgoing stream}$$

%H₂S , S₂ , SO₂ , H₂O

W H₂S , WS₂ , WH₂O , WSO₂