

Making CO-Rich Syngas and High Purity H₂

Summary

This is a method to produce simultaneously hydrogen and syngas that has a H₂/CO ratio <2.5. It is accomplished by removing CO₂ from the effluents of primary and secondary reformers and then increasing CO₂ feed amounts to a secondary reformer.

Overview

This steam methane reforming method to make hydrogen and syngas with a low H₂/CO ratio is unique in that the H₂/CO ratio is more like that obtained from autothermal reforming. In conventional steam methane reforming methods, low H₂/CO syngas ratios are obtained when the effluent is processed through additional gas separation equipment, e.g. membrane or PSA. The Figures below show the schematic of the process and the CO₂ removal system that is the source of CO₂ feed into the primary and secondary reformers.

Benefits:

- Simultaneous production of hydrogen and syngas with H₂/CO ratio <2.5

Priority Patent / Docket No.	Title	Status	Grant Date
US 6,521,143	Co-Production of CO-rich Syngas with High Purity H ₂	Issued	2/18/2003

Also Offered:

Limited technology transfer assistance is available on an hourly basis.

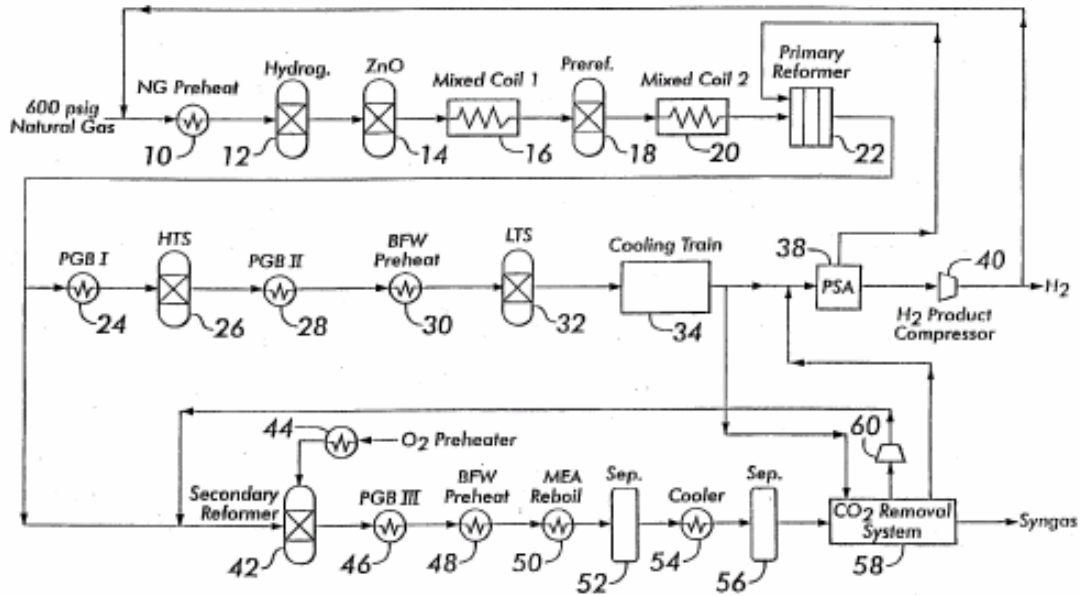
Availability:

Air Products is offering this technology for license or sale.

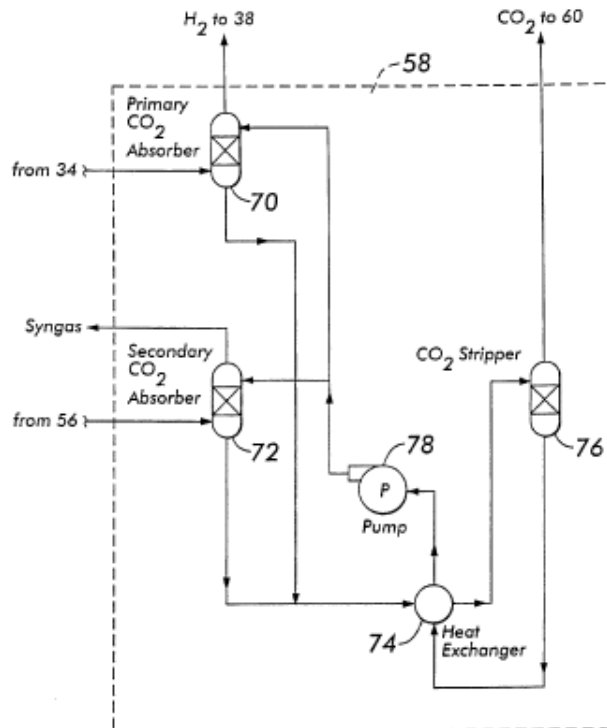
For more information on licensing this technology contact:

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