


	Plant description	
Type: SGRD 3500		Herco Ref: 7274



Plant description

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Notes:

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4. Plant description

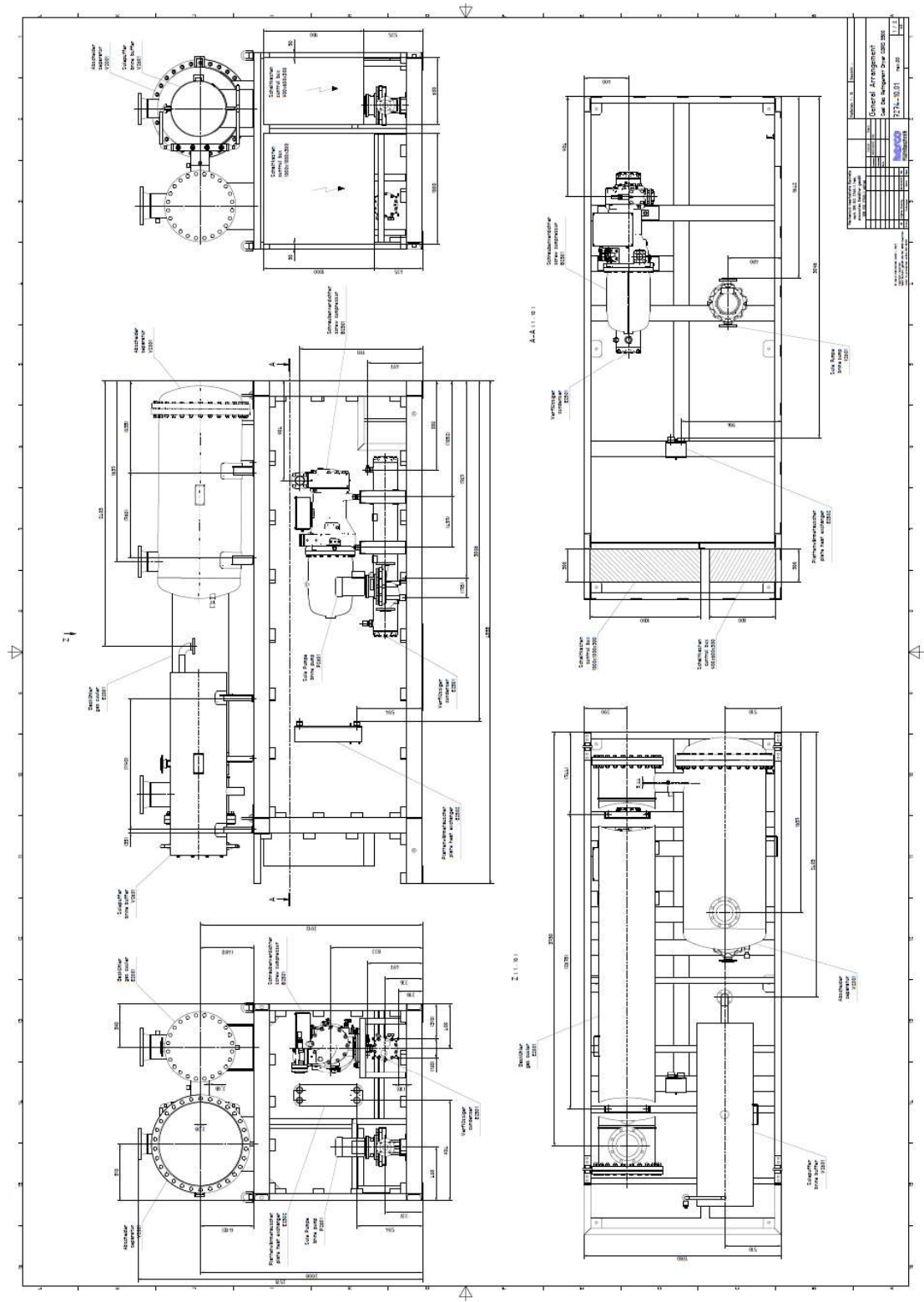


Figure 0-1 Overview

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4.4 Process description

see flow sheet 7274-01_FB

The humid seal gas flows through the gas cooler E2001 where it is cooled down to 6°C. Hereby most of the humidity condenses. The water drops are separated from the gas stream in the separator V2001. The condensed water is drained via the floating valve A2001.

The gas cooler is cooled by cold brine which is a mixture of ethylene glycol and water. The brine is buffered in the brine buffer vessel V2601 and pumped through the gas cooler by the pump P2601.

The brine is cooled by a refrigerating system mainly consisting of the compressor B2501, the refrigerant condenser E2501, the refrigerant evaporator E2502 and the expansion valve A2511.

4.5 Brine chilling system

The cooling capacity which is necessary to cool down the seal gas in the gas cooler E2001 is generated in a brine chilling system. The refrigerant used in this system is R134a. In the refrigerant evaporator E2502 the refrigerant is vaporized and the brine is cooled down to about 4°C. The vaporized refrigerant is sucked of by the compressor B2501 and compressed. The gaseous high pressure refrigerant is condensed in the water cooled condenser E2501. The liquid refrigerant is injected into the evaporator by the expansion valve A2511.

In the evaporator the refrigerant is vaporized again and therefore the refrigerant cycle is closed.