

VAPOMAXX – THE PILLER VAPOR COMPRESSOR

Piller Blowers & Compressors, the leader in Mechanical Vapor Recompression (MVR) presents the PILLER VapoMaxX, a product of our VapoLine.

The PILLER VapoMaxX combines the advantages of our high-performance blowers and the advanced performance of compressor technology. The machine achieves pressures up to 20 bar(g) with a maximum operating temperature of 230 deg C. The VapoMaxX delivers temperature lifts of 20 K per stage and provides a versatile and efficient choice for various industrial requirements.

KEY-FEATURES OF THE PILLER VAPOMAXX

Design Features

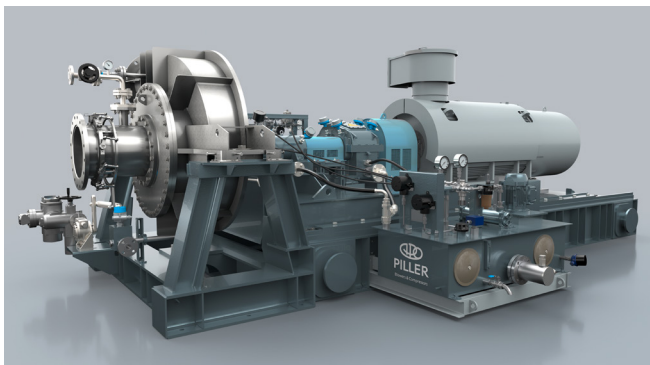
- All wetted parts are constructed with stainless steel materials
- Pull-out rotor unit for easy access to the impeller without removing piping
- Shaft sealing system with water or vapor buffering
- Suitable for hazardous areas
- Anti-Surge Control and adaptive Surge Protection
- On-skid terminal box for centralized instrumentation signal output

The Drive Concept

- PILLER's patented squeeze oil damper bearing: Our antifriction bearing system provides superior vibration dampening
- Gearbox designed with double helical gears
- VFD (Variable Frequency Drive) or D.O.L (Direct On Line) with inlet guide vane operation

Our VapoMaxX at a glance:

- Efficiency of up to 87 percent
- Designed for applications with mass flows up to 57 000 kg/h
- Performance up to 20 K temperature rise in single-stage application
- Ideal for any steam compression with system pressures up to 20 bar(g)
- Main components ready engineered
- Combines the advantages of our high-performance blowers and the performance of compressor technology
- For optimizing existing plant operations or processes, as well as for implementing in new installations



VapoMaxX – advanced vapor compression

EASY MAINTENANCE

Pull-out rotor unit for easy maintenance and service: all rotating components are assembled on a movable base with mechanical crank. Piping can stay in place to reduce downtime.

Learn more about our service concept



Pushing the technical limits

The VapoMaxX compressor is specifically developed to operate in Mechanical Vapor Recompression and steam regeneration processes.

Our unique designs allow for a wide range of single-stage and serial connected options to maximize compression ratios and reach maximum temperature lifts.

VAPOR AND STEAM COMPRESSION: SERIAL CONNECTED MACHINES ACHIEVE MAXIMUM COMPRESSION RATIOS

PILLER's VapoMaxX in serial connection provides

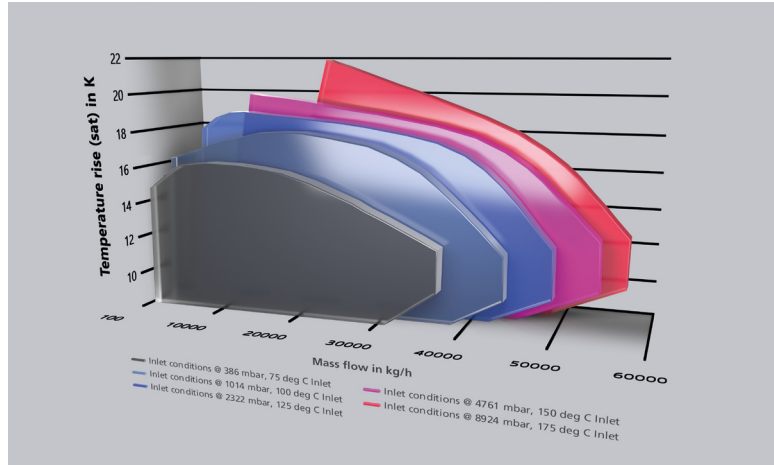
- Flexible arrangement of individual stages and static weight distribution
- Each stage sized for maximum efficiency
- Simple installation and easy accessibility
- Lower starting current through successive stage-by-stage start-up sequence
- Lube Oil System per stage or centralized
- Best performance due to optimum interaction and harmonization of the machines

Steam (re-)generation with PILLER VapoMaxX: A sample project

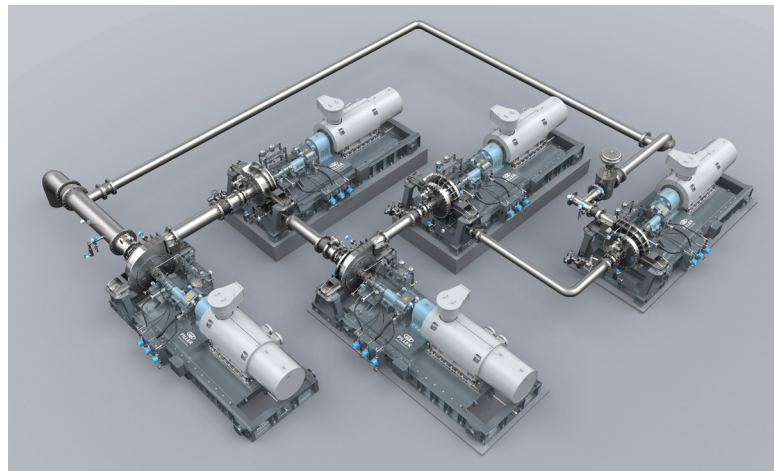
Compression Train 1	
Inlet temperature	80 deg C
Inlet pressure	0.47 bara
Outlet temperature	154 deg C
Outlet pressure	5.2 bara

Compression Train 2	
Inlet temperature	154 deg C
Inlet pressure	5.2 bara
Outlet temperature	211 deg C
Outlet pressure	19.6 bara

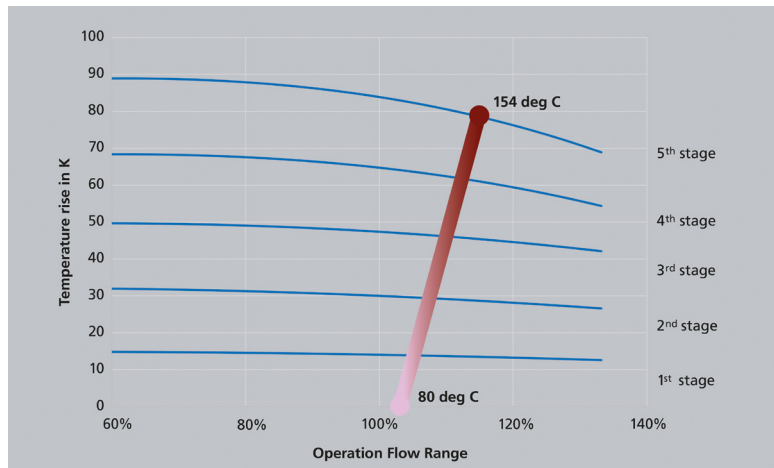
In this steam generation project 42 tons of steam are supplied per hour, reducing the final energy costs by 8 Million € and the CO₂ emissions by 10 650 ton per year.



Single stage design – Performance summary of our VapoMaxX product range



Steam compression system with five VapoMaxX in series



Serial connect design for Vapor Compression

Visit our website to find worldwide sales & service contacts

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