

VAPOMAXX – THE PILLER VAPOR COMPRESSOR

Piller Blowers & Compressors is the global technology leader for centrifugal blowers and compressors in the field of mechanical vapor (re-)compression (MVR/MVC).

The PILLER VapoMaxX is a high pressure and high temperature compressor for vapor and steam applications. The machine combines the advantages of our high-performance blowers and the advanced performance of compressor technologies. With the VapoMaxX, PILLER meets the demand for increased temperature rises and higher pressures.

DESIGN PARAMETERS FOR VAPOR APPLICATIONS

- Performance up to 20 K temperature rise in single stage application
- Pressure up to 20 bar (g)
- Temperature up to 215 deg C
- Mass flow range up to 57 000 kg/h

Design Features

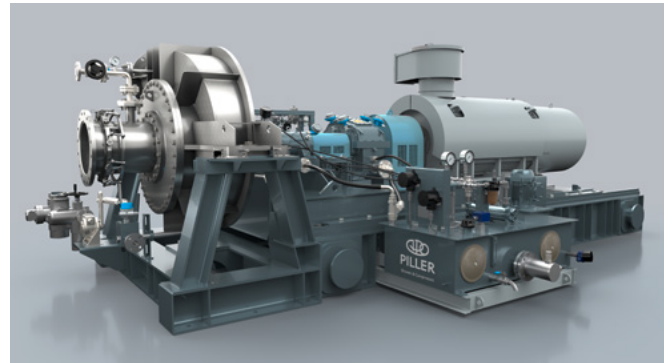
- All wetted parts out of material stainless steel
- Pull-out rotor unit
- Shaft sealing system with water or vapor buffering
- Suitable for hazardous areas
- Anti-Surge Control and adaptive Surge Protection for safe operation
- On-skid terminal box for central signal collection

The Drive Concept

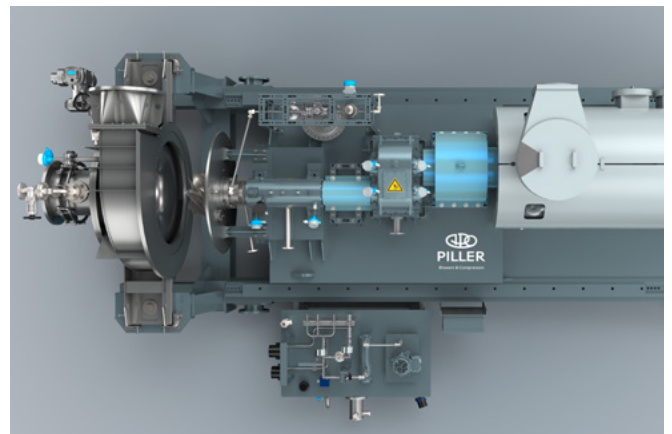
- PILLER's patented squeeze oil damper bearing: Supercritical antifriction bearing system for highest resistance against unbalancing
- Gearbox designed with double helical gears
- VFD (Variable Frequency Drive) or D.O.L (Direct On Line) with inlet guide vane operation

EASY MAINTENANCE

Pull-out rotor unit for easy maintenance and service: all rotating components are assembled on a movable base with mechanical crank. Vapor pipes can stay in place for shortest downtimes.



VapoMaxX – advanced vapor compression



Pull-out design for easy maintenance and service

Pushing the technical limits

The VapoMaxX compressor is specifically developed to operate in mechanical vapor recompression and steam regeneration processes.

It's unique geometries and sizes allow single-stage as well as multi-stage installations to maximize compression ratios, respectively to reach highest temperature lifts.

VAPOR AND STEAM COMPRESSION: MULTI-STAGE SYSTEMS ACHIEVE MAXIMUM COMPRESSION RATIOS

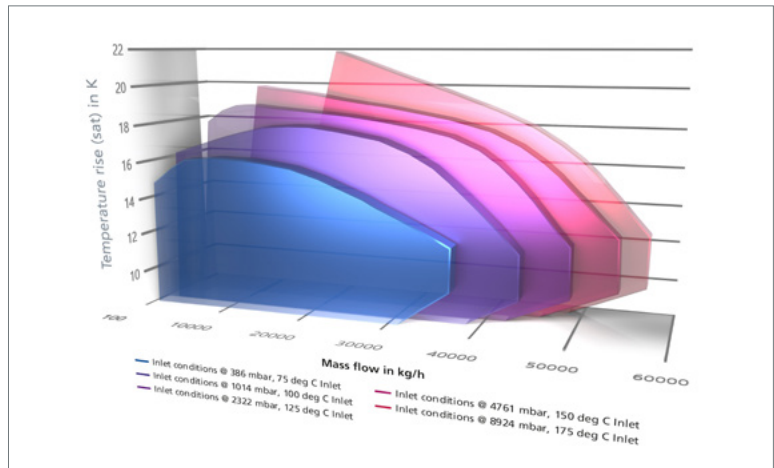
PILLER's multi-stage systems provide you with

- Flexible arrangement of individual stages and static weight distribution
- Each stage with best efficiency
- Simple installation and easy accessibility
- Reduction of starting current by single start up of each stage
- Lube Oil System per stage or centralized
- Best performance due to perfect interaction/ harmonization of the machines

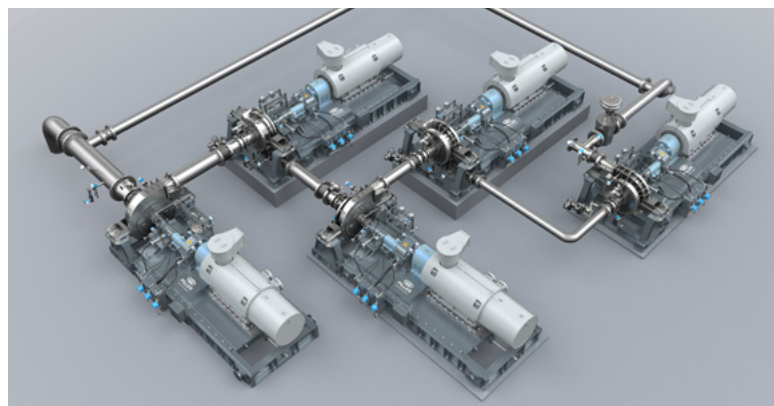
Steam (re-)generation with PILLER VapoMaxX: A sample project

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

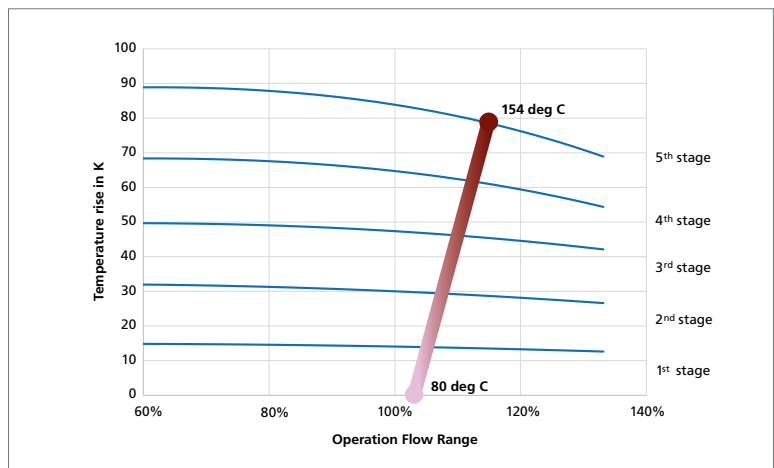
In this steam generation project 42 tons of steam are supplied per hour, reducing the final energy costs by 8 Million € and the CO₂ emissions by 10 650 ton per year.



Single stage design – Performance summary of VapoMaxX product range



Steam compression system with five VapoMaxX



Multi-stage design – VapoMaxX performance in compression train 1

Visit our website to find worldwide sales & service contacts

Piller Blowers & Compressors GmbH
 Nienhagener Str. 6
 37186 Moringen
 GERMANY
 ☎ +49 5554 201-0
 📠 +49 5554 201-271
 ✉ pbc-info@piller.de
 www.piller.de

