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

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

VapoMaxX – advanced vapor compression
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

<table>
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<tr>
<th>Compression Train 1</th>
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<tbody>
<tr>
<td>Inlet temperature</td>
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<tr>
<td>Inlet pressure</td>
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<tr>
<td>Outlet temperature</td>
<td>154 deg C</td>
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<tr>
<td>Outlet pressure</td>
<td>5.2 bara</td>
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<table>
<thead>
<tr>
<th>Compression Train 2</th>
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<tbody>
<tr>
<td>Inlet temperature</td>
<td>154 deg C</td>
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<tr>
<td>Inlet pressure</td>
<td>5.2 bara</td>
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<tr>
<td>Outlet temperature</td>
<td>211 deg C</td>
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<tr>
<td>Outlet pressure</td>
<td>19.6 bara</td>
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</table>

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.