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 degC
- 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.
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

<table>
<thead>
<tr>
<th>Compression Train 1</th>
<th></th>
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<tbody>
<tr>
<td>Inlet Temperature</td>
<td>80 deg C</td>
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<tr>
<td>Inlet Pressure</td>
<td>0.47 bara</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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</tbody>
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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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</tbody>
</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.