The manufacturer of centrifugal compressor systems is Kazancompressormash (Kazan, Russia).

All information in this brochure is for reference only and to select products developed and manufactured by Kazancompressormash. Please refer to relevant manuals for detailed technical information on all products. Kazancompressormash reserves the right to alter their products without prior notice and is not responsible for possible errors in catalogs, brochures and other printed materials.

**Construction Materials**
- Ductile cast iron
- Carbon steel
- Stainless steel
- Titanium

**Drive Types**
- Electric motor
- Gas turbine
- Steam turbine

**Scope of supply**
- Compressor (compression stage)
- Skid-mounted electric motor
- Skid (in-skid oil tank)
- Multiplier
- Lubrication unit
- Automatic control system
- Seals unit with control system
Centrifugal Compressor Systems

The centrifugal compressor systems by HMS Group are distinguished by their high reliability and performance due to contemporary design and up-to-date manufacturing technologies. The compressor systems are available in standard and customized versions fully compliant with customer requirements and on-site operation conditions.

The compressors are manufactured by Kazancompressormash (HMS Group) – the leading in Russia and CIS manufacturer of compressor systems and provider of compressor-based integrated solutions for various industries.

The cooperation with the major research, development and engineering center NIIturbokompressor (HMS Group) in a combination with the modern manufacturing facilities of Kazancompressormash ensures production of the high-efficient compressor equipment in compliance with international standards.

Compressor System Types
- Compressors with horizontally split casing
- Compressors with vertically split casing
- Integrally geared compressors
- Centrifugal turboexpanders

Application
- Oil refining and petroleum chemistry:
  - catalyst crackers
  - vacuum gasoil units
  - hydrocracking units
  - hydrotreaters
  - delayed coking units
- Gas processing: crude gas units, gas recovery systems
- Oil and gas processing: compressed air for air-fractioning stations
- Offshore production platforms
- General industry applications

Technical Data
- Suction volumetric flow rate: 15…2,000 m³/min
- Pressure level: 450 bar
- Drive power: 100...32,000 kW
- Inlet/Outlet pressure ratio: 1.2…50
- Gas molecular weight: 3…50
- Efficiency: up to 85%

Model Range

<table>
<thead>
<tr>
<th>Compressor Type</th>
<th>Discharge Pressure, bar</th>
<th>Capacity, m³/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centrifugal compressors with horizontally split casing</td>
<td>up to 40</td>
<td>up to 1,200</td>
</tr>
<tr>
<td>Centrifugal compressors with vertically split casing</td>
<td>up to 450</td>
<td>up to 800</td>
</tr>
<tr>
<td>Integrally geared centrifugal compressors</td>
<td>up to 50</td>
<td>up to 2,000</td>
</tr>
<tr>
<td>Centrifugal turboexpanders</td>
<td>up to 40</td>
<td>up to 400</td>
</tr>
</tbody>
</table>
1. Oiled slide bearings with self-positioning pads are resistible to high dynamic and static load. The magnetic bearings for increased compressor reliability are available upon request.

2. High-efficient flow path ensures required characteristics in a wide range of operational parameters. Application of the unified pressure stages significantly reduces the lead time for compressor design and manufacturing.

3. The rotor is dynamically balanced during and after assembling. The final balancing is performed at operational rotation speed of the compressor system.

4. The cast nozzles are welded to the forged cylinder casing. A casing version without nozzles is available for high-pressure compressors.

5. The shaft end seals prevent leaks of the working gas. The available seals range includes dry mechanical seals, dry groove seals, and oil seals.
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The centrifugal compressors by Kazancompressormash apply the advanced technical solutions such as dry gas dynamic seals, redundant automation and control systems, vibration control and diagnostics systems and many other features to realize the following advantages:

- High reliability
- Long nonstop runs between overhauls
- Low cost of installation
- High-efficient automation and control system for operational safety including unmanned operation mode
- Energy-efficient flow path with high performance
- Stable operation within a wide range of variable parameters and composition of the gas being compressed
- Better serviceability due to contemporary compressor design with easy access to components for fast and simple maintenance
- Optimal price/quality ratio
- Short manufacturing and delivery lead time
Construction Materials
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- Titanium

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Performance range

<table>
<thead>
<tr>
<th>P, bar</th>
<th>V, m³/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>100</td>
</tr>
<tr>
<td>450</td>
<td>200</td>
</tr>
<tr>
<td>200</td>
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<tr>
<td>4</td>
<td>200</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
</tr>
</tbody>
</table>

Scope of supply
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