

Products Research & Development

Natural Gas Treatment Products



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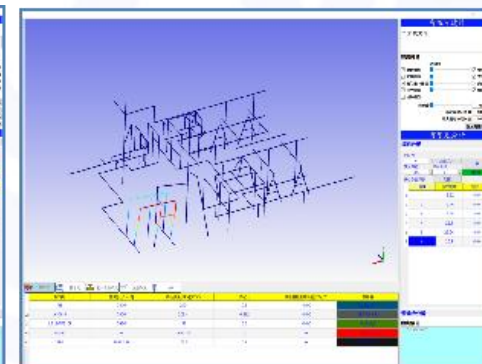
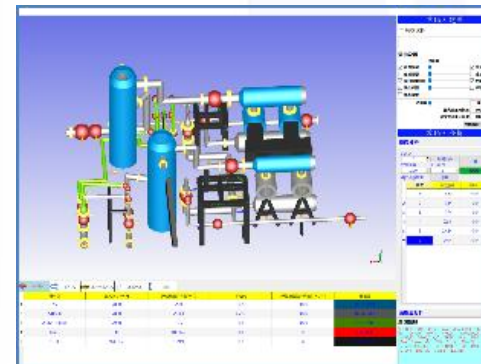
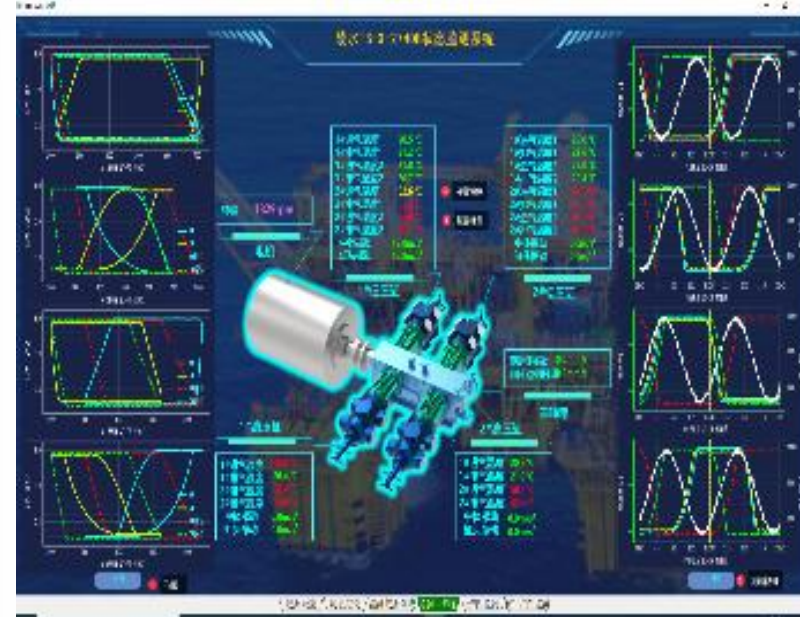
Through the independent localization of natural gas compressor skids, research achievements have been transformed, COOEC effectively driving the overall development of the marine natural gas industry and related industries, and laying a solid foundation for the independent development of China's marine natural gas.



- Capable of dynamic simulation and pulsation analysis of natural gas compression processes;
- The first low-pressure natural gas recovery compressor skid has been successfully applied on the KL3-2 platform of Bohai Oilfield, avoiding a large amount of torch combustion of associated gas and achieving energy conservation and emission reduction;
- Has the technical ability to solve complex working conditions such as high pressure H₂S and CO₂ content, high pressure ratio, high pressure difference, and large flow fluctuations in offshore oil and gas fields, and to form natural gas compressor skids;
- Establish CNOOC's first VR virtual reality training center.

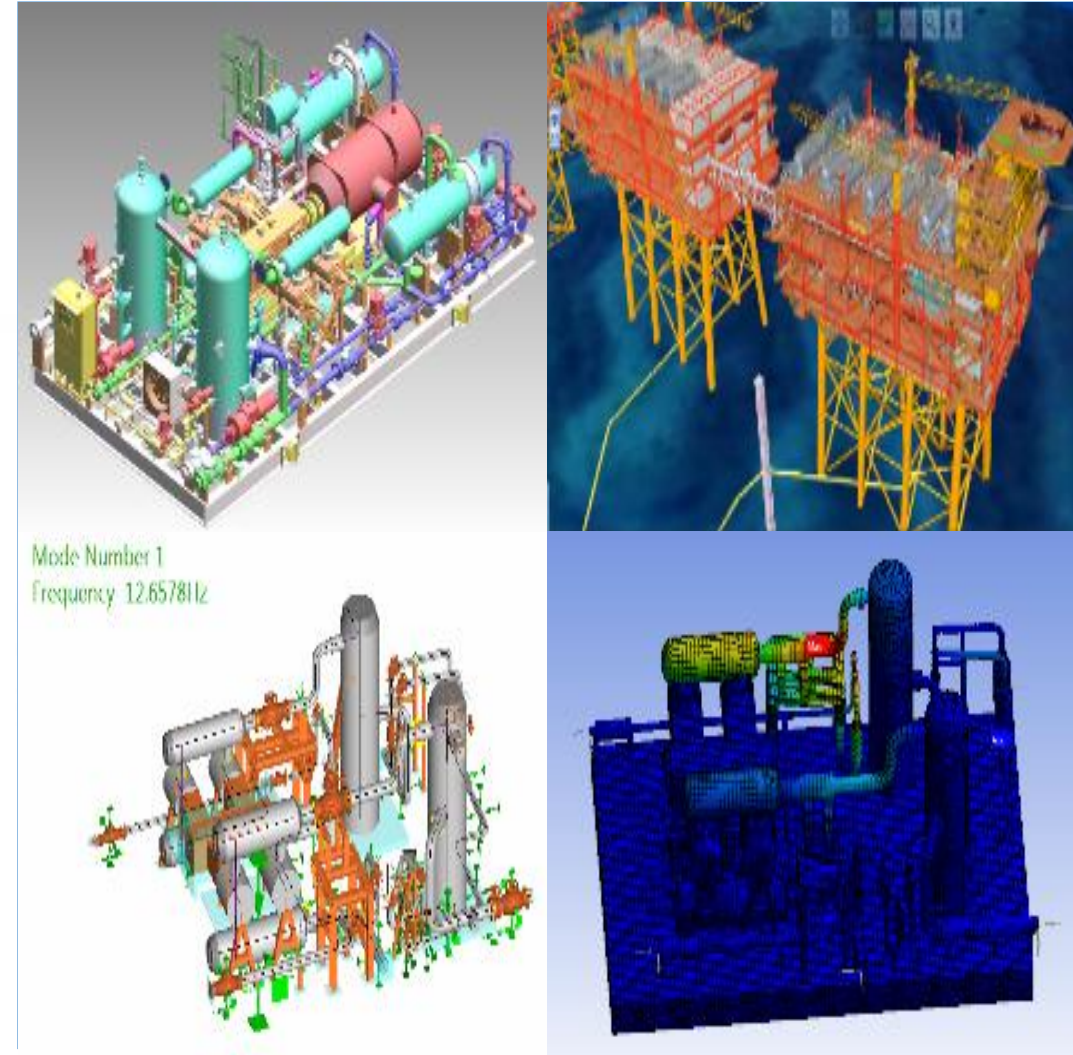
- **Product digitization and intelligence - online monitoring and fault diagnosis technology**

- By analyzing the typical fault modes of natural gas compressor units and monitoring the parameters of the existing control system, comprehensive monitoring of compressor dynamic pressure, shell vibration, piston rod settlement, engine shell vibration, instantaneous speed and other signals is achieved to achieve monitoring and early warning of typical faults.
- Through technological breakthroughs, automatic warning and diagnosis of typical faults in natural gas compressors have been achieved, significantly improving the intelligence level of equipment fault diagnosis.

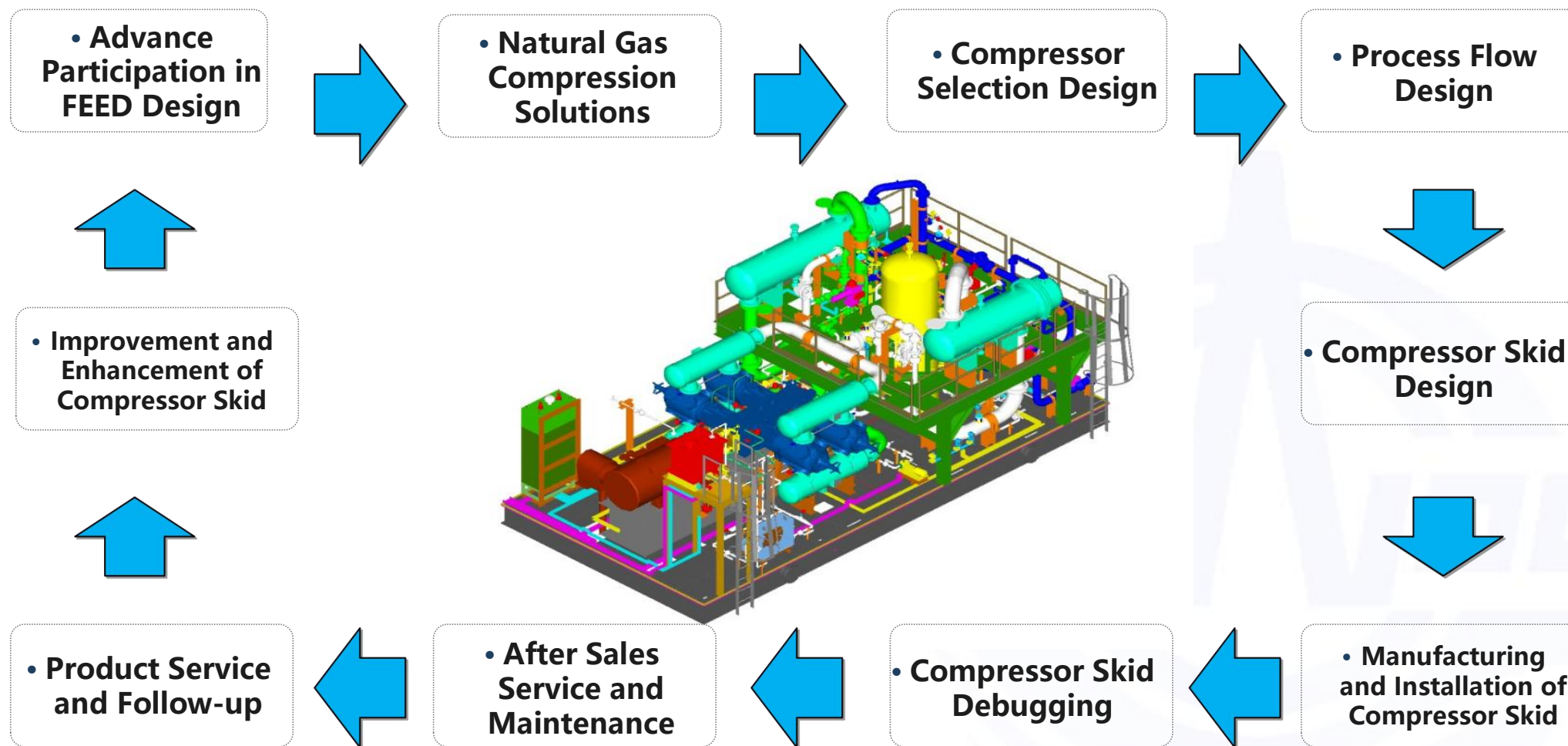


● Digitalization and Intelligence of Products - Digital Twins

- Digital twins provide enormous potential for the transformation of today's manufacturing model towards intelligent manufacturing, enabling the self diagnosis, self maintenance, and self recovery of manufacturing equipment to become a reality. They can solve the problems of insufficient information integration and integration, insufficient virtual real interaction, and delayed production decision-making in traditional simulation technologies.
- In the past, the pilot project for the complete set of equipment for reciprocating compressors was initiated. Considering that its design and operation generated a large amount of usable data, its interaction and integration, visualization and optimization, digital delivery and subsequent digital management will be achieved. This will greatly improve operation and maintenance efficiency, reduce personnel injuries and property losses caused by faults, and gradually achieve intelligent and long-term effective health management of the complete set of equipment for reciprocating compressors.



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A comprehensive ten step service process; Provide full lifecycle solution for natural gas compression services of offshore platforms

卓越工程 赋能未来

Empower the Future with Excellent Engineering

THANKS

谢谢