



MODULE COMPRESSOR UNIT



COMPANY TODAY

Modern engineering and manufacturing company,
founded in 2010

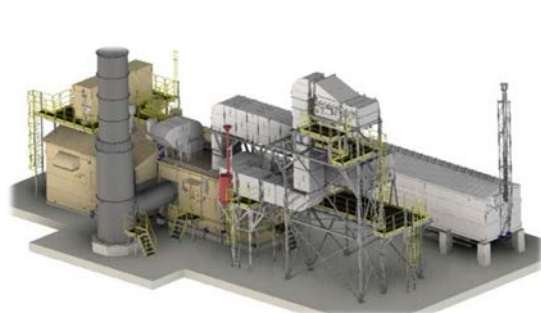
Area of the production facility

16 acres

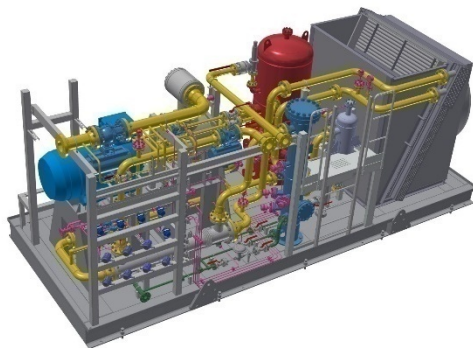
more than **400**
employees

INGC is certified for compliance with ISO 9001-2018.
Certification of production for compliance with **ASME**

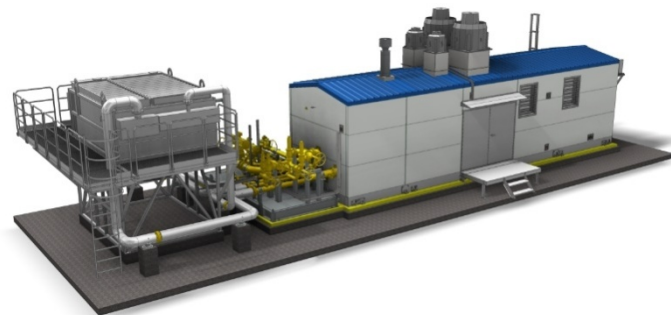
PRODUCT LINE



CENTRIFUGAL COMPRESSOR UNITS



SCREW COMPRESSOR UNITS



PACKAGED EQUIPMENT



GAS TURBINE POWER UNITS



RECIPROCATING
COMPRESSOR UNITS



MODULE COMPRESSOR UNITS

MODULAR COMPRESSOR UNIT (MCU)

for compression of low pressure gases

Objective: Development and implementation of modular compressor units of a new type to increase pressure in flow lines of the field gas-gathering system

Our offer: Package modular compressor unit based on the integrated centrifugal motor-driven compressor

Main characteristics:

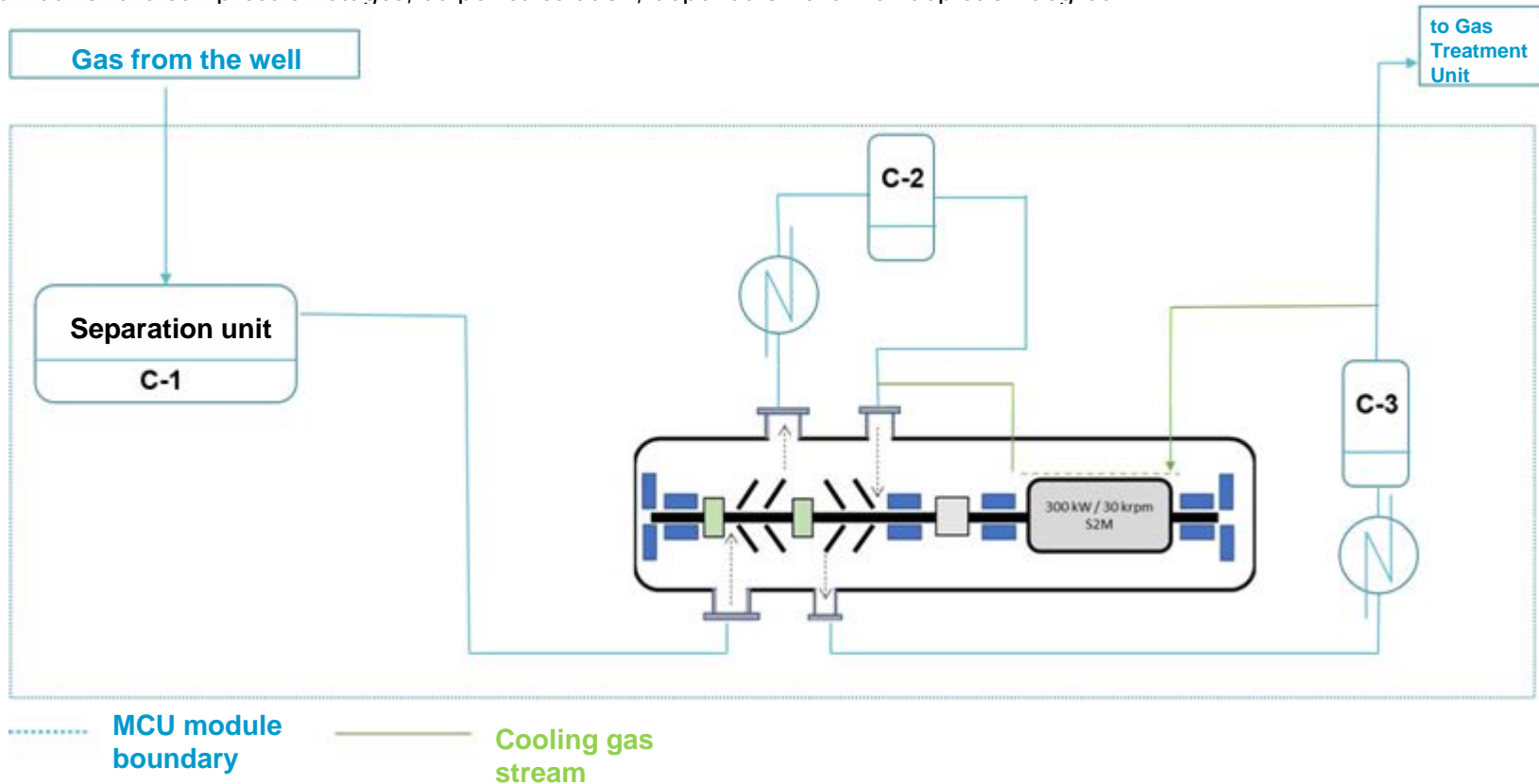
- Power ranges from 300 kW to 16 MW
- Single skid-mounted modular design including air cooling unit
- Compression of low pressure gases
- Drive: VFD integrated forced ventilated electric motor



MODULAR COMPRESSOR UNIT (MCU) BASED ON THE CENTRIFUGAL MOTOR-DRIVEN COMPRESSOR

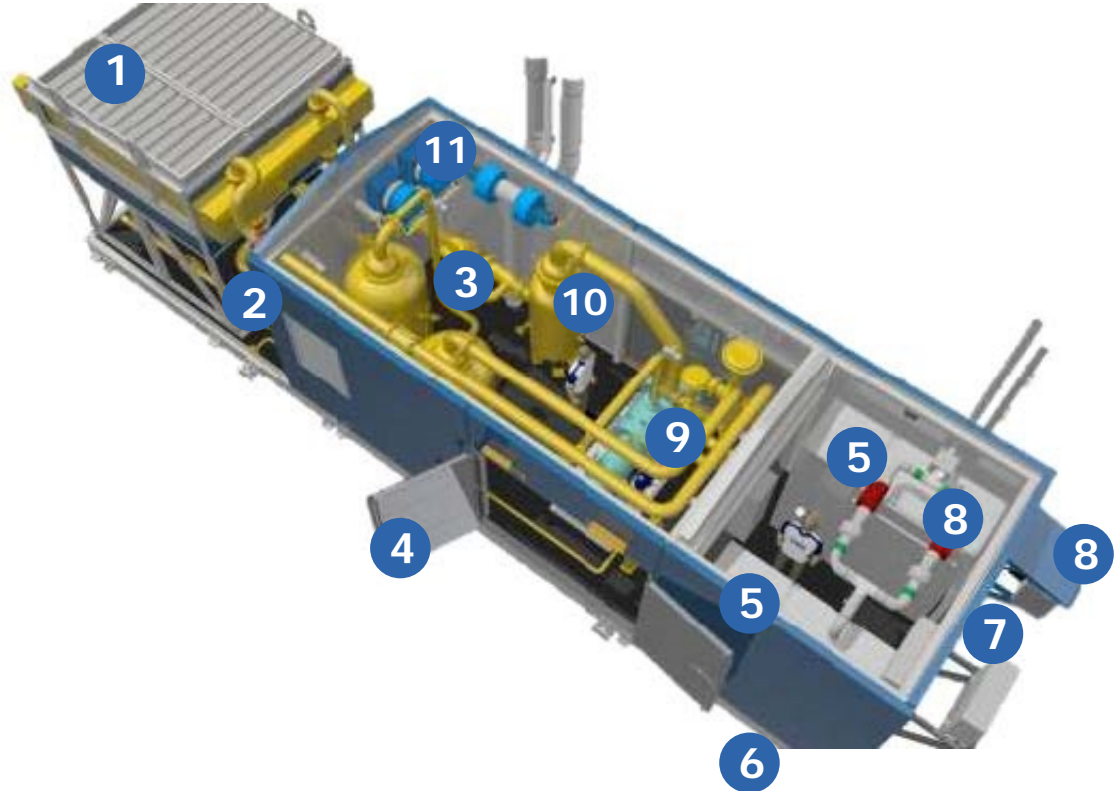
for gas compression at well clusters

Number of the compression stages, as per calculation, depends on the well depletion degree



MAIN SYSTEMS AND COMPONENTS OF THE MODULAR COMPRESSOR UNIT

- 1 Two-section gas air cooling unit
- 2 Package modular unit with utility systems
- 3 Package gas piping with shut-off and control valves and instrumentation
- 4 Gate for equipment removal
- 5 Cabinet equipment (motor VFD, magnetic suspension control system, MCU low-voltage package and MCU ACS cabinets)
- 6 Common skid for the entire modular unit
- 7 Electrical section entrance
- 8 HVAC system of the section and electrical section
- 9 Motor-driven compressor
- 10 Gas separation system
- 11 HVAC systems





INTEGRATED MOTOR-DRIVEN COMPRESSOR

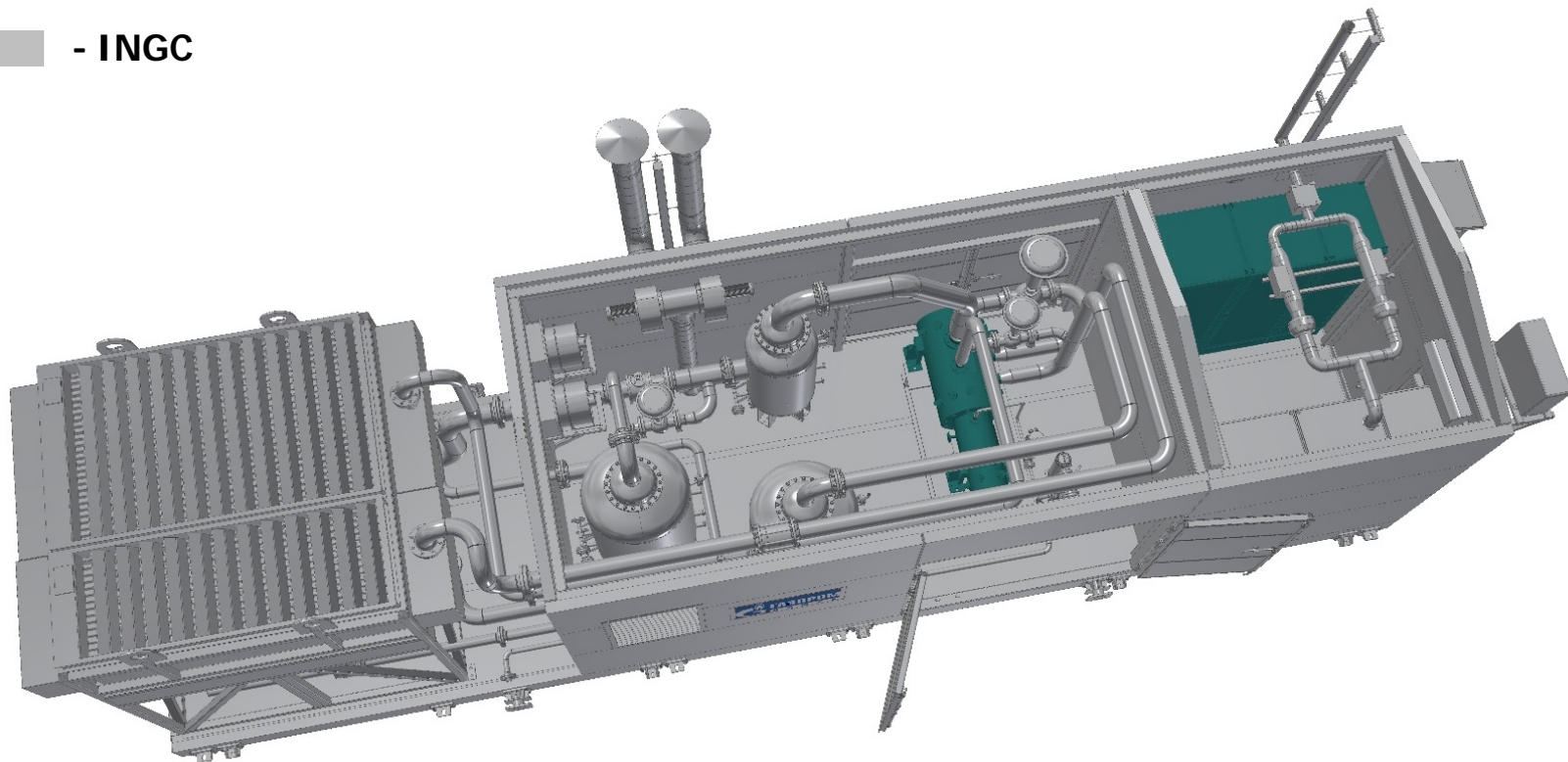
- Classical «back-to-back» type compressor
- S2M active magnetic bearing system with blow-down and gas cooling
- 0,4 MW electric motor
- Coupling
- Common leak-tight rigid casing



SPLIT OF THE COMPONENT SCOPE OF SUPPLY

 - Compressor – manufacturer's supply

 - INGC



ADVANTAGES AND DISADVANTAGES

INNOVATIVE AND CONVENTIONAL MODULAR COMPRESSOR UNITS

Innovative approach - ICL

Advantages:

- ✓ One-pieceed skid-mounted modular design including air cooling unit
- ✓ Ready-to-operate
- ✓ Short commissioning time
- ✓ 5 years interval between major service
- ✓ No oil trace in the compressed gas
- ✓ No oil system

Disadvantages:

- –



Conventional approach - SCU

Advantages :

- ✓ Conventional proved design

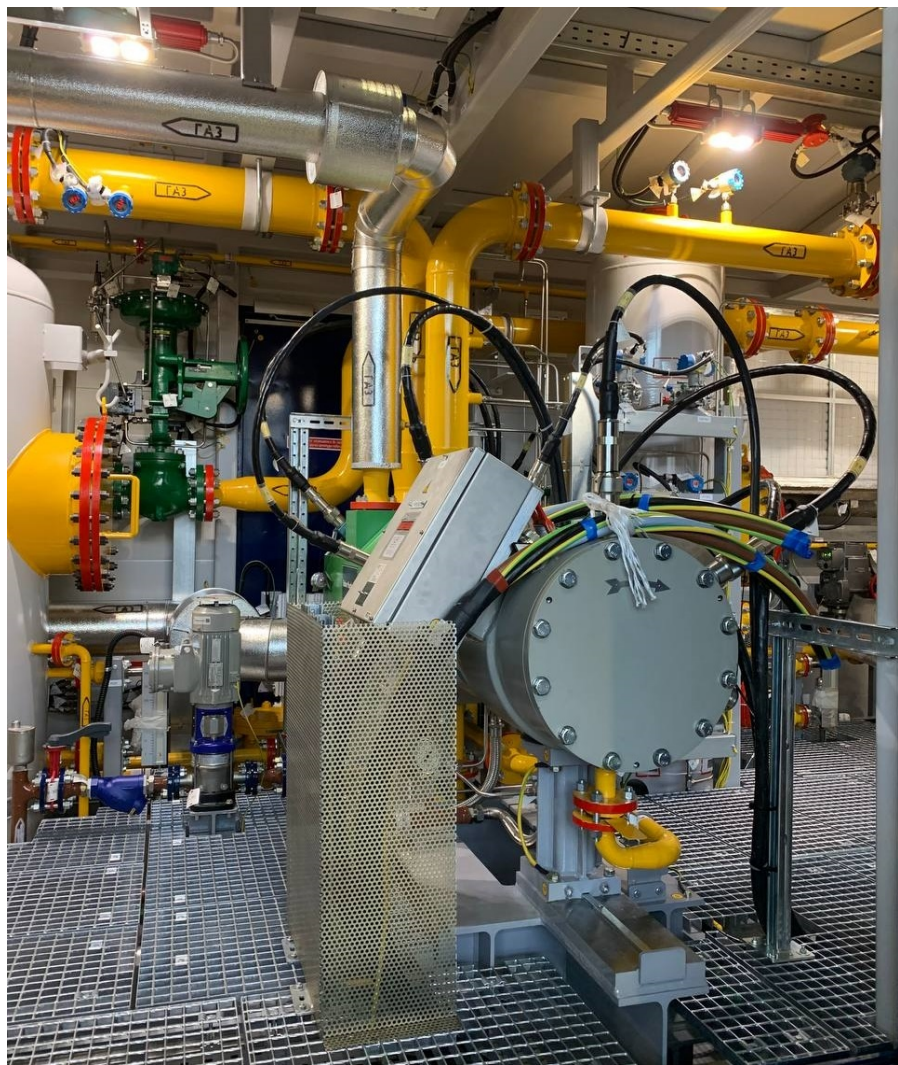
Disadvantages :

- Possible condensate dropout in the oil
- Oil system maintenance
- Need for gas cleaning from oil and oil entrainment
- Need for maintenance of oil facilities
- Short periods between maintenance and repair
- Low energy efficiency



MODULAR COMPRESSOR UNIT BASED ON THE CENTRIFUGAL MOTOR-DRIVEN COMPRESSOR





MAINTENANCE AND REPAIR SCHEDULE FOR MODULAR COMPRESSOR UNIT BASED ON THE MOTOR-DRIVEN COMPRESSOR

Maximum efficiency of application of the proposed modular compressor unit is achieved by means of substantial increase in time between the scheduled maintenance and repair

	Daily	5 years	10 years
Daily maintenance	✓		
Intermediate maintenance		✓	
Overhaul			✓

Innovative approach - ICL minimum maintenance

2 maintenances for the entire life time

Conventional approach - SCU

20 maintenances for the life time

PRODUCTION

- Total area of the production base is 16 acres;
- Assembly workshop is 55000 ft²;
- Machining workshop is 27000 ft²;
- Painting and packaging workshop is 16000 ft²;

up to **12** Recip units
simultaneously

up to **20** Sentrifugals units
annually



PRODCUTION AREA

In 2020, territory of the production area was expanded up to 17 000 feet²

- New administration buildings were constructed – 13000 feet²
- Outdoor storage area was expanded – 39000 feet²
- New gantry crane of 16 ton capacity was purchased.



Scheduled measures for the territory development:

Construction of new production shops of 55 000 feet² area, among them:

- Blank production and machine assembly workshop – 2 9600 feet²
- Administration and amenity rooms and auxiliary areas — 3660 feet²
- Surface preparation workshop – 14 700 feet²
- Procurement and finished product packaging workshop – 6500 feet²

Construction of metalware and electrical equipment warehouse of 4300 feet² area



SALES AND ENGINEERING

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