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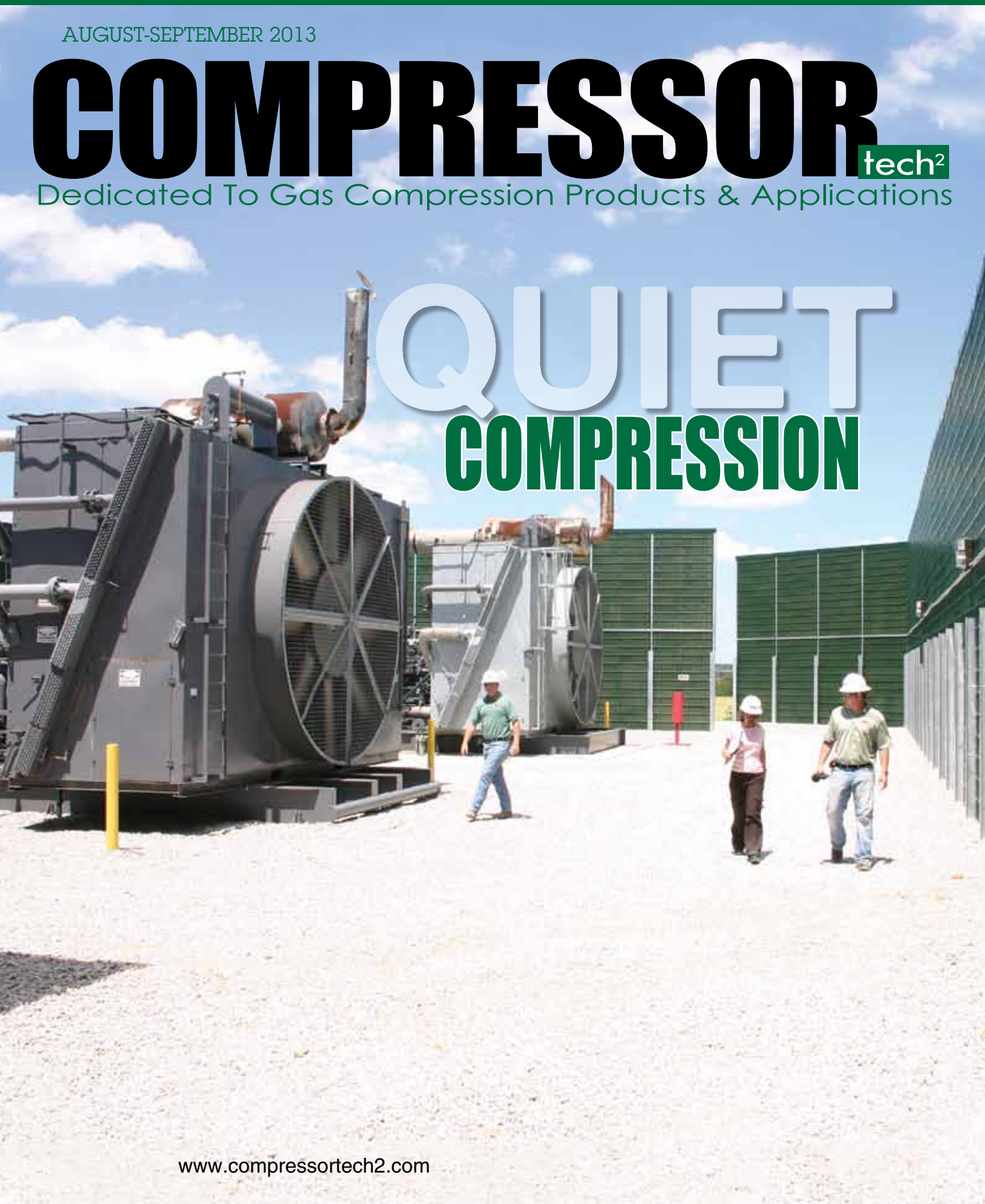

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'Young' Company Has Decades Of Experience

Rapidly growing Euro Gas Systems serves European compression market

BY NORM SHADE

■ This is one of three Waukeha 12VAT-275GL+ gas engine and Ariel JGC/4 compressor packages that EGS built for a 12% H_2S Lukoil gas compression project.

In November 2012, Euro Gas Systems SRL celebrated the completion of its new compressor package assembly plant in the industrial park adjacent to the airport at Targu Mures, Romania.

Founded in early 2010, Euro Gas Systems (EGS) began operations in a modest facility in the city of Targu Mures. Less than two years later, it had delivered 16 compressor packages, ranging from 40 to 420 hp (30 to 315 kW) for customers in Ukraine, Russia, Kazakhstan and Poland.

The company also sold more than 60 EGS-designed and manufactured Pressure Equipment Directive (PED) certified vessels as separate items to other packagers and end users during that time.

EGS built the new plant in response to strong sales growth, including a demand for larger compressor packages. Its backlog had grown to 17 packages by the time the plant was completed.

The facility has 25,835 sq.ft. (2400 m^2) of manufacturing space plus 10,340 sq.ft. (960 m^2) of office and meeting space in a two-story format attached to the side of the factory. The assembly area is divided into two 49 x 262 ft. (15 x 80 m) bays that are each equipped with two 55 ton (50 tonne) cranes and three 11 ton (10 tonne) cranes.

The facility has a 20 x 50 ft. (6 x 15 m) paint booth and welding machines, CNC pattern torch, metal shear, saws, etc. for skid and pressure vessel manufacturing.

Production in the plant ramped up rapidly and by the end of last May EGS had delivered 13 more compressor packages ranging from 74 to 3750 hp (55 to 2700 kW). The three largest packages included Waukesha 12V275GL+ gas engine-driven Ariel JGC/4 compressors for a 12% H_2S gas compression application in Russia.

The market has continued to respond to EGS' presence in the Eastern European market, and the rapidly growing company is planning to double the new plant's assembly space to 51,670 sq.ft. (4800 m^2). The expansion includes another large paint booth and another 11 ton (10 tonne) crane for each assembly bay. All cranes will

These six Tedom TG 100 DV NX 86 gas-engine-driven reciprocating compressor packages were made for a MOL Hungarian Oil & Gas Plc wellhead compression application. Developed in cooperation with Ganzair Compressortechnics LLC, each package rating is 120 hp (89 kW) at 1800 rpm.

be able to traverse the full 525 ft. (160 m) length of the expanded facility.

"We're a young company with many years of experience," said General Manager Roger Wachter, who has spent more than 30 years in the compression industry in the U.S. and Europe.

Located in Transylvania, where most of the Romania's gas and oil is produced, EGS has been able to assemble a management team and work force that was already knowledgeable about the industry it serves.

In addition, EGS uses U.S.-trained consultants to guide the workforce in building quality equipment. Eric Harrison, a consultant to the EGS field service and aftermarket department, has more than 23 years of hands-on experience in the operation, maintenance and repair of gas engine and electric motor-driven compressors of all sizes. Hector Llamas, a consultant to the production department, has more than 11 years of experience in the packaging of gas compressors.

Claudiu Orban, production control manager, came to EGS from a management position in a locally based international energy company. Andras Popp, engineering manager, has a master's degree in mechanical engineering and more than 15 years of experience at a local machine design company. Sorin Apostu, quality control manager, holds a master's degree in quality control management and worked in the welding industry for 18 years prior to joining EGS. Ioana Tinca, office manager and the first EGS employee, came from another start-up company, where she gained experience that helped EGS get underway.

The European approach to compressor package design

EGS made these 420 hp (315 kW), 1000 rpm ABB electric-motor-driven Ariel JGE/2 single- and two-stage compressor packages for Polish EPC contractor PGNiG Technologie. The systems are inside explosion-proof, noise-supressing enclosures.

■ One of four 215 hp (160 kW), 1800 rpm Caterpillar G3406NA and Ariel JGQ/2 single-stage compressor packages is shown ready for lifting. The units were built for Chemomomeftegaz and include Murphy TTD control panels and ACE coolers.

and operating philosophy is much different than in the U.S. market. Packages delivered to the European Union (EU) require CE marking and compliance with four major EU directives: ATEX, the Pressure Equipment Directive (PED), the Machinery Directive and the Low Voltage Directive.

Compressor packages for the CIS (the former Soviet Union states) require compliance with GOST standards and other market and end user requirements. Wachter explained that EGS's mission is to provide quality, cost-effective compressor packages to the European market based on U.S.-made compressors and engines.

EGS is an approved packager of Ariel compressors and offers both electric and gas engine-driven gas compressor packages, ranging from 50 to 5000 hp (37 to 3729 kW).

Caterpillar, GM, Tedom and Waukesha gas engine or ABB, Siemens or UMEB electric motor drivers are offered with EGS compressor packages. ACE-Alfa Laval air-cooled heat exchangers and Altronic, FW Murphy and Kilowatts Design Co. control panels are offered.

Company officials indicated that EGS could make any type of steel fabrication needed. Pressure vessels can be certified to European PED or ASME codes. The company can provide the engineering and drawings for these vessels or work to customer-provided drawings.

"Aftermarket parts and service support is another focus of Euro Gas Systems, to ensure customer satisfaction of delivered products," Wachter said. "We offer a wide range of services including start-up and commissioning, operation/maintenance programs and training for the end users. EGS service technicians receive factory training and certification from the equipment manufacturers."

The company also offers re-cylindering of existing compressor frames and can provide new scrubbers, pulsation vessels, process piping, related controls and new coolers or cooler sections for existing systems as required.

The largest units that EGS has completed to date are three Waukesha 12V275GL+ gas engine and Ariel JGC/4 reciprocating compressor packages for a Lukoil gas processing facility in Russia. Rated 3625 hp (2703 kW) at 1000 rpm, each two-stage compressor can deliver up to 19.1 MMscfd (22,500 Nm^3/hr) from 87 psig (6 bar) suction to 585 psig (41 bar) discharge pressure. The entire process gas system, including all vessels, piping and valves, is made from 316 stainless steel due to the high (12%) H_2S content in the gas.

Some of the more complex packages completed to date include two ABB electric motor driven Ariel JGE/2 single/two-stage compressors produced as part of a gas gathering application for Polish EPC contractor, PGNiG Technologie. Each unit has a rating of 420 hp (315 kW) at 1000 rpm to deliver gas from a suction pressure of 72 to 175 psig (5 to 12 bar) to a discharge pressure of 363 psig (25 bar) in single-stage mode or a maximum discharge of 914 psig (63 bar) in two-stage mode.

Each package is housed in two separate enclosures. The compressor package is inside a noise supressing enclosure rated for ambient temperatures of -22 to 95°F (-30 to 35°C). The enclosure is equipped with normal and emergency lighting, ventilation system, fire and anti-explosive environment protection, fire-fighting system, heating system, and alarm devices and protection systems.

All systems are explosion-proof, meeting Group 2 (Zone 2) G (subgroup 2 A), temperature class T1. Controls and automation equipment, including the unit control panel, variable frequency drive, and fire suppression control panel, are housed in an annex enclosure.

To date, about one-third of EGS's compressor packages have gone to applications in the EU and two-thirds to the CIS. The company said that the Middle Eastern market is a target for future expansion. CT2