



SMALL MACHINE, REALLY BIG WORK

Serbian OEM VLIG opted for the Vanguard® 400 commercial single-cylinder engine to create a reliable, portable drilling rig for hard-to-reach places

Based in Serbia, VLIG is a family business founded by two brothers with extensive experience in the drilling industry. Focusing on portability and innovation, the company manufactures vertical drilling machines designed for water well, geothermal, and geotechnical drilling.

VLIG was facing demand from dealers and customers for a non-electric, portable drilling option due to the unreliability of electric power in some regions of the world and the ease of refuelling a gas engine. The need for a compact and lightweight, yet powerful drilling solution to complete water well and geotechnical drilling made the weight of a diesel-powered machine unsuitable. Added to this, the team was presented with

the challenge of accessing urban areas with traditional truck-mounted drilling machines.

Seeking the right power partner to help them develop a product to answer these challenges, VLIG conducted thorough research and selected Briggs & Stratton's Vanguard 400 commercial engine as the perfect power solution for their all new GTC Compact drilling machines. VLIG was also impressed with Briggs & Stratton's solid industry reputation and high quality service support alongside its wide range of power options, all of which would help VLIG to achieve quality standout in a competitive market.

The Vanguard 400 commercial single-cylinder engine is built to excel, featuring 14 horsepower, integrated cyclonic air filtration that doubles air filter replacement intervals to 600 hours, and TransportGuard® to control throttle, ignition and fuel, preventing any mixing of fuel and oil during transport. The engine was considered by VLIG to be the 'golden middle', as Igor Bačani, CEO of VLIG explains, "The Vanguard 400 Commercial Engine strikes the perfect balance for us in terms of power, weight, and cost, making our GTC Compact drilling rig a 10 out of 10 in terms of compactness and portability."

During product development, Briggs & Stratton provided a 3D model of the engine to ensure accurate manufacture of the frame housing. This made installation of the engine quick and easy, as did the pre-mounted engine electrics, so that all was required for the first version of the new machine was to connect the starter battery's power supply and attach the pumps to the crankshaft.

The resulting GTC Compact Drilling Rig is a portable drilling machine for water wells of 260 feet depth or more, which can also be used for geotechnical drilling.

The machine consists of a hydraulic generator powered

by the Vanguard 400 commercial engine to run the hydraulic pumps, distributing pressure with oil lines to further distributors installed on the machine mast. Drilling is carried out in vertical holes, either flushing with water or down the hole (DTH) drilling with air or dry drilling for sampling soil. The machine is very lightweight and easy to install, delivering impressive results with minimal noise and vibrations, thanks to the Vanguard engine, making it ideal for both remote and urban locations.

The carefully selected Vanguard 400 commercial gas engine makes the GTC Compact Drilling Rig completely portable, while the design allows for easy manoeuvrability, quick installation, and efficient operation. Its low maintenance requirements, characteristic of the entire Vanguard single-cylinder engine line, contribute to a reduced total cost of ownership (TCO). Additionally, the engine delivers stable performance and power in varying challenging conditions.

Vanguard's 3-year warranty on the engine provides peace of mind for VLIG in terms of reliability and support for maintenance and repair, a benefit which is



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Igor Bačani
CEO of VLIG

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Igor Bačanin
CEO of VLIG



naturally passed on to customers. Igor Bačanin says, “Customers love hearing about the 3-year warranty, plus an additional year when registering the engine, and we do too. We have already experienced the outstanding customer service provided by the Briggs & Stratton service team. The client was happy, so we were happy as well. Peace of mind for all parties involved.”

Tomas Mika, Manager Regional Sales for Central Eastern Europe & Balkans at Briggs & Stratton says: “Given the tough environments that the GTC Drilling Machines will be used in, VLIG required maximum reliability and durability from their power solution. And our Vanguard 400 Commercial Engines provided exactly that.”

With an eye on the future, VLIG is already planning to introduce the Vanguard 400 with EFI/ETC technology, which will further enhance fuel efficiency and throttle control, improving the overall performance and user experience of the GTC Compact Drilling Rig.

Adam Dicsö, Sales Executive Central Eastern Europe at Briggs & Stratton said: “We were very happy to introduce the Vanguard 400 engine to this customer,



**VANGUARD 400
COMMERCIAL ENGINE
10.4 GROSS KW***

GROSS POWER KW (HP) @ 3,600 RPM:	10.4* (14.0)
DISPLACEMENT (CC)	408
CYLINDER	Cast iron sleeve
BORE & STROKE (IN)	3.46 X 2.64
FUEL TANK CAPACITY (L)	5.74
OIL CAPACITY (OZ)	31.79
DRY WEIGHT (LBS)	78.26
DIMENSIONS L X W X H (IN)	14.29 x 17.91 x 18.11
FEATURES	TransportGuard, dual ball bearing, Super Lo-Tone muffler, integrated cyclonic air cleaner
OPTIONAL	Electric start, low oil sensor, 45° inclination package, clear flange muffler, low profile air cleaner

* All power levels are stated in gross kilowatts per SAE J1940 as rated by Briggs & Stratton. ** Extra year warranty after engine registration. See www.vanguardpower.com for warranty details.



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Tomas Mika
Manager Regional Sales for
Central Eastern Europe & Balkans
at Briggs & Stratton

as it perfectly fits their needs. The machine will be even more effective when using the Vanguard 400 with EFI technology that ensures improved starting at all temperatures, smooth performance at all elevations, quick load acceptance and reduced fuel consumption.”

VLIG is also planning further collaboration with Briggs & Stratton, to design a water pump powered by another Vanguard commercial engine. This will be mounted on a frame with wheels for optimum manoeuvrability and will complement the company’s existing drilling machines in the water well sector, among others.

CONTACT US NOW

TO FIND OUT HOW VANGUARD CAN HELP YOU POWER YOUR EQUIPMENT



Find out more about Vanguard on: www.vanguardpower.com



For more news and updates, follow us on LinkedIn:

www.linkedin.com/company/vanguard-commercial-power/

ABOUT BRIGGS & STRATTON

Briggs & Stratton, headquartered in Milwaukee, Wisconsin, provides innovative products and diverse power solutions to help people get work done. Briggs & Stratton is the world's largest producer of engines for lawn and garden, turf care and job site power equipment and is a leading designer, manufacturer and marketer of lithium-ion batteries, standby generators and energy storage systems through its Briggs & Stratton®, Vanguard®, Ferris®, Simplicity®, Snapper®, Billy Goat®, Allmand®, Branco® and Victa® brands. Briggs & Stratton products are designed, manufactured, marketed and serviced in over 100 countries on six continents.

ABOUT VLIG

A family business founded by two brothers, VLIG designs and manufactures water well drilling rigs and machines for multi-purpose drilling. Based on many years of drilling experience and analysis of drilling machine operation, Vlig aims to balance quality, design and price to provide a point of difference and value to the market. VLIG's products are used by companies in civil engineering, construction, and geo-mechanics, as well water well drilling across Europe, Africa and Asia with over 300 units sold in past 6 years. <https://vlig.rs/en>

VANGUARD

BRIGGS & STRATTON

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