



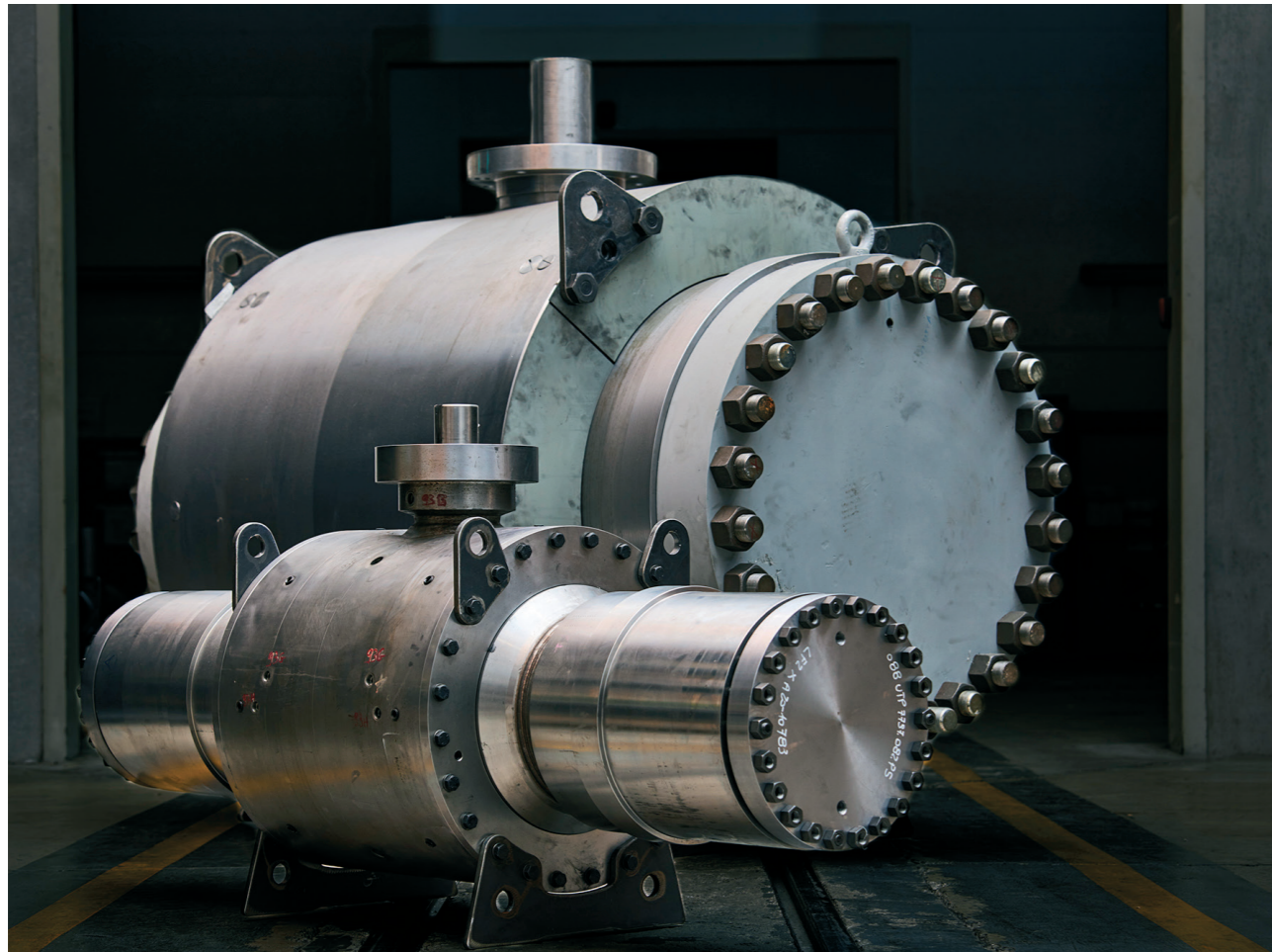
Survive & thrive

EIC Insight Report 2021
VOLUME V



PetrolValves Group

Embracing new experience and new expertise



How is PetrolValves thriving?

In 2018 PetrolValves turned a corner. A new leadership team with fresh ideas embarked on a cultural journey which has seen the Italian manufacturer embrace new methods and bring a game-changing new product to market.

The challenge

For many family businesses, it is hard to let go of tradition and embrace innovation shaking off old habits.

In the town of Castellanza in Lombardy, Italy, PetrolValves has been operating

since 1956, building a formidable reputation and brand through its tried and tested technology over generations. The company is a manufacturer of valves and actuators for the oil and gas industry, engaging in the design, production and service of both its own and third party products. It has offices and customers all over the world, selling into all the major oil and gas markets.

After TBG Holdings' becoming a shareholder in 2016, PetrolValves embarked on an innovation drive in a bid to push the boundaries of technology and boost customer service. New plants have been built and pioneering technologies have

been invested in, but more recent challenges have highlighted the need to go further.

In response to the 2014-2016 oil price crash, customers are increasingly looking to cut their costs and focus on local supply chains. Meanwhile, the gathering momentum of energy transition programmes has created new needs in the form of technological innovation and sustainability.

The solution

In 2018, a new leadership team was formed, headed by CEO Cristiano Tortelli and bolstered by a team of top-level managers with extensive

experience in the oil and gas and energy industries but also bringing expertise from other cross sectors.

First on the agenda – company culture and embracing a changing market environment. In order to drive any meaningful practical change, internal culture had to be realigned, and with this arrived a new ERP system, structure, processes, people and attitudes in regards to customer service, innovation, continuous improvement and collaboration. The message was clear – all employees can and should be motivated by creating value to customers.

The new strategy and mindset also brought new ideas on product development, adding to the already formidable pool of industry-leading engineers, not least because they designed the first ever valves to be used in HPHT applications.

PetrolValves quickly jumped on the opportunity to cross-pollinate ideas between existing engineers and new recruits from the rotating equipment industry. The status quo was challenged, with trailblazing machining capabilities invested in, and new ideas began to emerge.

The most significant is BRAVA. Based

on the idea that a valve could be effective without bolts, the project was quickly initiated with subsea and surface prototypes developed in almost total secrecy at the company's Varese plant. In place of bolting is a compressor seal joint, a swap which reduces valve weight by 25%, cuts costs by 20% and reduces assembly time by 30%.

PetrolValves was a sure-fire winner, although it was not all plain sailing from this point. Convincing customers so used to the industry standard model, especially given how visibly different the boltless BRAVA appears, required perseverance and multiple demonstrations. Meanwhile, design fine tuning was needed to ensure compliance with API 6D standards, an important step as this removed the 'new design' tag. The COVID-19 pandemic also led to testing delays, although the work did continue in secure conditions to alleviate any health and safety concerns.

Fast-forward to July 2020, and BRAVA has been launched and is being marketed as a cost-effective, lower-weight and sustainable alternative to traditional API 6D ball valves.

The valve functionality stays the same, as well as material selection or sealing



solutions. This technology aims to drive new benefits without compromising valve performance.

Suitable for upgrading existing assets as well as making for sound CAPEX investment, BRAVA can save up to US\$1m up front on a typical API 6D ball valve spend for one FPSO or platform. Further cost efficiencies can also be made, as associated pipework and lifting will also cost less due to BRAVA's properties.

The important progress made by simplifying the design, makes the valve installation and maintenance faster and easier, minimising the execution risks. As a result, the finished product ticks three key boxes: high valve reliability and service; lower lifecycle cost of ownership; and a more sustainable solution.

By producing cost-effective, sustainable alternatives to previously unchallenged industry-standard products, PetrolValves is helping to not only secure its own future, but also ensure oil and gas operations continue to deliver value and work more sustainably.

Story type

#technology (main category)

#innovation, #energytransition

Benefits

- 20% cost reduction for client (approximately US\$1m for a typical FPSO project)

Key findings

For industry

- Dedicate to solving real problems, providing tangible industry benefits

Government support?

In Italy, PetrolValves has benefitted from initiatives such as apprenticeship levy, export financing, R&D credits as well as government grants.

PetrolValves at a glance:

Key products and services: flow control solutions

Main industries served:

- Oil and gas – 80%
- Conventional power – 20%

Headquarters: Castellanza, Italy

Year established: 1956

Number of employees: 600

Revenue: €200m

Revenue from exports: 97%

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