



Domus Pressure Regulator Used for Hydrogen

Throughout the UK and much of Europe, we are increasingly recognising the importance of hydrogen and the key role it can play as we strive to achieve a net zero carbon future. FT Pipeline Systems is proud to be partnered with Brazilian company GASCAT who have been working with hydrogen for almost four decades. FTSP is the sole distributor of GASCAT pressure regulators in the UK, all of which are pre-trimmed for hydrogen / hydrogen blend.

Below is an example of hydrogen use, taken from Gascat's work in their domestic market:

Hydrogen Case Study: Usiminas (MG) Steel Plant

Brief – hydrogen pressure regulators

Usiminas who are the largest steel fabricator in Brazil required pure hydrogen as part of their production process for steel. Pure hydrogen is used during the annealing processes for steel coils. Hydrogen creates the correct atmosphere for the process and also burns away all residual oils.

GASCAT were asked to provide a fully stainless steel solution based upon the following conditions:

First Stage

Operation conditions:

- Inlet Pressure Max 250 bar
- Control Pressure 03 bar
- Max Flow 550 m³/h of Hydrogen



Composed of:

- AV Filter 5 μ
- Domus Pressure Regulator with two pilots for better control.

Second Stage

Operation Conditions:

- Inlet Pressure 03 bar
- Outlet Pressure 50 mbar with max flow 550 m³/H of Hydrogen

Composed of:

Pressure regulator with inbuilt slam shut (SSV) GA 302 model with body and interior cover casting in stainless steel (CF8M) controlling 50 mbar outlet of hydrogen.

Usiminas were delighted with the product at the time. When contacted recently for a comment, they advised us that the plant has been operational now for 10 years and during that time there have been no issues whatsoever so they continue to be pleased with Gascat's products.