NATURAL GAS APPLICATIONS BY BRANCH

**Metal industry**
- Blast furnace
- Calcining furnace
- Casting furnace
- Crucible furnace
- Forge
- Hardening furnace
- Melting furnace
- Re-boilerary furnace
- Tempering furnace

**Chemical/Process industry**
- Afterburner
- Calcination drum
- Catalytic afterburner
- Cracking unit
- Fermentation
- Fluid bed combustor
- Incinerator
- Perlite furnace
- Refinery waste gas flare
- Spray dryer
- Sterilization food-/pharmaceutical products

**Central heat and power**
- Air heater
- Gas turbine
- Gas motor
- Hot water boiler
- Reciprocating engine
- Radiation heater
- Shell boiler
- Steam boiler
- Steam generator
- Waste gas boiler
- Water heater
- Water tube boiler

**Miscellaneous**
- Asphalt cooking still (vertical tube type)
- Carbon black applications
- Continuous band oven
- High temperature cement kiln
- Make-up air
- Oil heater
- Rock-wool melting furnace
- Roll heating (rolling machinery rolls, paper mill rolls)
- Rotary oven

**Brickyard**
- Brick kiln
- Dry chambers (dehydrating)
- Progressive kiln
- Round down-draft kiln
- Tunnel furnace

**Paint drying**
- Chamber kiln
- Recirculating air heaters

**Agricultural**
- Gluten dryer
- Powder dryer

INDUSTRIAL GAS INSTALLATIONS

Safety and the environment are important for the future of us, our children and generations that follow. The natural gas industry, providing the lowest carbon emissions fossil fuel, is providing a significant contribution to improve the quality of the environment, and with a continuous strive for quality through innovation and standardisation, the quality of gas installations and energy efficiency of appliances are reaching ever increasing heights.

Gas industry leaders acknowledge the strategic role of European and National Standards. They are making their research, expertise and experience available by sending their experts to Technical Committees to participate in elaborating functional and detailed standards.

European, national legislation and the related framework of standards are complex and changing at an ever increasing pace. For industrial plant engineers, finding these standards can be a difficult task, demands specific knowledge and can consume considerable time. This guideline has been compiled by a MarcoGaz Technical Committee to give the reader a clear understanding of the different sections of an industrial gas installation and the related European standards to be applied.

As designers and installers apply the prevailing standards for design, construction, testing and operation of an industrial gas installation, safety not only increases but also the full energy efficiency of appliances are utilised. As a result, customers are being stimulated to increase adoption and use of natural gas as the fuel of choice in place of alternative energy sources.

MARCOGAZ

Created in 1968, MarcoGaz has developed over the years an efficient reputation with the official bodies in the European Union and other industry partners.

- MarcoGaz chief mission is to serve its members as the European window for any technical issue regarding natural gas.
- As the representative organisation of the European Natural Gas Industry, it aims at monitoring and taking influence where needed on European technical regulation, standardisation and certification with respect to safety and integrity of gas systems and equipment, and rational use of energy.
- Environment, Health and Safety issues related to natural gas systems and utilisation are also of paramount importance for MarcoGaz.

PRIMARY OBJECTIVES

- to promote safety, reliability, cost effectiveness and environmental advantages of natural gas systems and appliances
- to identify, monitor and take action on technical legislation at EU level
- to promote with the EU institutions fair European legislation reflecting the industry’s high safety record and respecting subsidiarity
- to actively monitor standardisation activities related to natural gas conducted by CEN, ISO, OIML and others
- to identify appropriate levels of competence for a safe and effective operation of gas systems
- to study any technical subject of interest for its members and promote cooperation with other associations representing the gas industry and manufacturers