

THE MEDIUM COMBUSTION PLANT DIRECTIVE (MCPD 2015/2193)

A STEP FORWARD
FOR AIR QUALITY IN EUROPE



MCPD | THE MEDIUM COMBUSTION PLANT DIRECTIVE (MCPD) 2015/2193 IS UNDER IMPLEMENTATION

**CHECK YOUR FACILITY
TO BE COMPLIANT BY 2025**

Air quality is one of the most pressing environmental challenges of our time. With the aim of improving public health and protecting the environment, the European Union has introduced various regulations to reduce air pollution. Among them, the Medium Combustion Plant Directive (MCPD) 2015/2193 is a significant step toward reducing harmful emissions.

WHAT IS THE MCPD?

The **MCPD Directive** entered into force on 18 December 2015 and all Member States had to transpose it into their national law by 19 December 2017.

One of the main objectives of the directive is to **limit pollutant emissions from medium combustion plants, such as nitrogen oxides (NO_x)**. These pollutants are known for their harmful effects on human health and the environment..

The limits imposed by the Directive vary depending on the type of plant and fuel used (gas, oil, biomass, etc.).

WHAT ARE MEDIUM COMBUSTION PLANTS?

Medium combustion plants are those plants with a **rated thermal capacity between 1 and 50 MW**.

They are **used in a wide variety of** sectors, and although they are average in size, their overall contribution to air emissions is significant.

THE MCPD REFERS TO:

- ALL NEW FACILITIES, AS OF DECEMBER 20, 2018
- ALL EXISTING PLANTS WITH A CAPACITY BETWEEN 5 AND 50 MW, AS OF JANUARY 1, 2025
- ALL EXISTING PLANTS WITH A CAPACITY BETWEEN 1 AND 5 MW, AS OF JANUARY 1, 2030

TYPE OF PLANT

The directive distinguishes between **new facilities** (those licensed after December 20, 2018) and **existing facilities** (those licensed before that date).

New plants must **comply with** emission limits **immediately**, while **existing plants** have a longer time frame to comply, with deadlines set at 2025 and 2030, depending on the size of the plant.

LIMIT OF EMISSION OF NITROGEN OXIDES (NO_x)

TYPE OF PLANT	New plants (1–50 MW)	Existing plants from 5MW to 50MW	Existing plants from 1MW to 5MW
TIMING	as of December 20 th , 2018	as of January 1 st , 2025	as of January 1 st , 2030
	2018	2025	2030
FUEL	Natural gas		250 mg/Nm ³
		100 mg/Nm ³	200 mg/Nm ³
	Other gases		250 mg/Nm ³
		200 mg/Nm ³	250 mg/Nm ³
	Diesel		200 mg/Nm ³
		200 mg/Nm ³	200 mg/Nm ³

WHAT SHOULD MEDIUM PLANT OWNERS DO?

MONITORING AND REPORTING

Plants must be **monitored regularly** to be compliant with emission limits (e.g., at least every three years for plants from 1MW to 20MW and every year for plants over 20MW*).

Monitoring results must be reported to the competent authorities, who may require further corrective measures in case of non-compliance.

* Monitoring requirements may vary in different nations, it is recommended to check the current requirements in the relevant market.

COMPLIANCE WITH EMISSION LIMIT VALUES

The combustion plant must necessarily comply with the emission limits established by the Directive.

In the event of noncompliance, the plant operator is required to take the necessary measures to ensure that compliance is restored in the shortest possible time; among these, **replacing the burner** with an adequately performing model is **one of the most significant and decisive actions**.

The **replacement of the burner** in the plant is a **very important** event, so much so that it is widely interpreted that the plant is no longer considered to be the existing one but is instead considered a new plant, that must therefore **fall within the most restrictive emission levels**. For this reason, **it is necessary to perform all the checks and select the most appropriate, high-performance, low-emission burner**.



RIELLO BURNERS FOR MEDIUM COMBUSTION PLANTS

The choice of **Riello burners** is proposed as the **ideal solution for fulfilling legislative obligations and simultaneously optimizing the effectiveness of one's combustion system**.

In fact, Riello offers a wide range of Low NO_x and Ultra Low NO_x burners, applicable to a variety of combustion systems, both civil and industrial, which enable the combustion plants not to exceed the emission values imposed by the Directive. The fact that they can also be used in existing installations also allows for significant plant upgrading and modernization.

Riello burners are also available with advanced combustion control systems that enable monitoring and maintenance of combustion performance over time, with energy savings and reduced air pollution as primary objectives.

GAS BURNERS



ULTRA Low NOx

Low pollutant emissions, below Class 4 of European standard EN 676 (NOx less than 60 mg/kWh*)

Modulating Electronic Cam (/E) and Variable Speed (/EV)



RS 68÷200/E-/EV ULX

- RS 68/E-/EV ULX (150/350÷1050 KW)
- RS 120/E-/EV ULX (200/610÷1400 KW)
- RS 160/E-/EV ULX (290/950÷1950 KW)
- RS 200/E-/EV ULX (375/1360÷2400 KW)



RS 310÷510/E-/EV ULX

- RS 310/E-/EV ULX(370/1250÷3700 KW)
- RS 510/E-/EV ULX (570/1900÷4600 KW)
- RS 610/E-/EV ULX (750/1900÷6000 KW)
- RS 810/E-/EV ULX (970/3350÷8100 KW)

Low NOx

Burners with low pollutant emissions, according to Class 3 of European standard EN 676 (NOx less than 80 mg/kWh*)

Modulating Electronic Cam (/E) and Variable Speed (/EV)



RS 68-200/E-EV BLU

- RS 68/E-EV BLU (150/350-860 KW)
- RS 120/E-EV BLU (300/600-1300 KW)
- RS 160/E-EV BLU (300/930-1860 KW)
- RS 200/E-EV BLU (570/1375-2400 KW)



RS 310-810/E-EV BLU

- RS 310/E-EV BLU (400/1200-3600 KW)
- RS 410/E-EV BLU (500/1500-4450 KW)
- RS 510/E-EV BLU (680/1800-5250 KW)
- RS 610/E-EV BLU (1000/2200-6250 KW)



RS 1000-1200/E-EV BLU

- RS 1000/E-EV BLU (1100/4000-10100 KW)
- RS 1200/E-EV BLU (1500/5500-11100 KW)



RS 1300-2000/E-EV BLU

- RS 1300/E-EV BLU (1350-7500/12000 KW)
- RS 1600/E-EV BLU (3065/9503-15560 KW)
- RS 2000/E-EV BLU (4000/12000-19500 KW)

Other versions are available, such as O₂ control. For more information, please contact your Riello network sales representative.

* The emission value is determined, according to requirements of EN 676, in normalized combustion chamber, on the average of the points of the working range and standardized to the reference conditions prescribed by the standard. Confirmation of the emission values requires verification of the characteristics of the combustion chamber.

MIXED BURNERS



Low NOx

Burners with low pollutant emissions, according to Class 3 of European standard EN 676 (NOx less than 80 mg/kWh*) and to Class 2 EN 267 (NOx less than 185 mg/kWh*)

Modulating Electronic Cam (/E) and Variable Speed (/EV)



RLS 68-200/E-EV MX

- RLS 68/E-EV MX (195/350-871 KW)
 - RLS 120/E-EV MX (290/595-1224 KW)
 - RLS 160/E-EVMX (421/947-1845 KW)
 - RLS 200/E-EVMX (401/1400-2322 KW)
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RLS 310-610/E-EV

- RLS 310/E-EV MX (600/1200-3600 KW)
 - RLS 410/E-EV MX (640/1500-4200 KW)
 - RLS 510/E-EV MX (660/1800-5170 KW)
 - RLS 610/E-EV MX (1000/2200-6155 KW)
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RLS 1000-1200/E-EV

- RLS 1000/E-EV MX (1200/3750-10600 KW)
 - RLS 1200/E-EV MX (1500/5500-11500 KW)
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Other versions are available, such as O₂ control. For more information, please contact your Riello network sales representative.

* The emission value is determined, according to requirements of EN 676 and EN 267, in normalized combustion chamber, on the average of the points of the working range and standardized to the reference conditions prescribed by the standard. Confirmation of the emission values requires verification of the characteristics of the combustion chamber.

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MCPD

The Medium Combustion Plants Directive (2015/2193) represents a crucial step in the fight against air pollution in Europe. By ensuring that even medium-sized plants comply with strict emission limits, the European Union continues to demonstrate its commitment to protecting the environment and the health of its citizens.

Disclaimer: All information and related notes in this document represent a generic and non-exhaustive summary of the requirements set out in the MCPD directive. Therefore, we invite the plant operator to check the local requirements in force in relation to the type of plant.



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