

# CAPITAL CONTROLS® MCP Systems

40 g/h to 1400 g/h Ozone Generators

The CAPITAL CONTROLS® MCP range is the smallest size range of ozone generators from De Nora. Ranging from 40 g/h to 1400 g/h of ozone across five different model sizes, systems offer flexibility, simple maintenance and a host of other operational features to ensure maximum uptime and cost effectiveness.

De Nora has been delivering ozone generators across a host of applications since 1970 and supports customers through the process from understanding the requirements through to delivery and aftersales support – all you need is a supply of air or Oxygen, water and electricity and we'll do the rest.



#### **Features**

#### **Flexibility**

- MCP series produce between 40 g/h and 1400 g/h of ozone based on Oxygen feed gas covering the majority of applications
- Ozone concentrations between 2% wt and 15% wt
- Air, PSA, and Liquid Oxygen (LOX) feed gas options – all optimized to minimize power consumption requirements
- Options include complete process lines, single component supply and enhanced process monitoring
- Individual electrode fusing or electronic protection for ease of operation and cost advantages

# Ease of use and operation

- Plug and play/fully automated system Simple start up and ease of use
- Touch screen operation easy to operate
- Standard pump VFD ensures easier global sourcing for spare parts

#### **Effective and efficient operation**

- Comprehensive process instrumentation ensures reliable ozone production
- Profibus-Modbus-Ethernet PLC extensions available – improved monitoring and integration into plant control



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#### Secure and safe

- System instrumentation for safe operation
- IP54 protection class ensures safe and long operational life of your equipment
- Fully tested and certificated
- Robust dielectric offers improved reliability over other designs

# **Easy installation**

• Pre-assembled, compact and complete assembly in a single painted carbon steel or stainless steel cabinet – ease of integration, installation and management with your existing facility

МСР	Ozone Performance		Cooling Water Demand		Weight		Size (Depth x Width x Height)	
	g/hr	lb/day	m³/h	gpm (US)	kg	lbs	mm	inch
1	up to 100	up to 5.5	0.14	0.62	150	330.7	600 x 800 x 1960	23.6 x 31.5 x 77.2
2	up to 200	up to 10	0.28	1.23	160	352.7	600 x 800 x 1960	23.6 x 31.5 x 77.2
4	up to 400	up to 20	0.6	2.65	350	771.6	600 x 800 x 1960	23.6 x 31.5 x 77.2
7	up to 700	up to 40	< 1.0	< 4.4	470	1036.1	600 x 800 x 1960	23.6 x 31.5 x 77.2
14	up to 1400	up to 75	< 2.0	< 8.8	600	1322.7	600 x 800 x 1960	23.6 x 31.5 x 77.2

Cooling Water Demand at design conditions: Cooling water at 15°C (59°F) - flow rate is according to the specific ozone production and concentration.

Note: Performance based on Oxygen feed gas (PSA or LOX), performance on Air feed is different.

Ozone generators are available stand-alone or as complete systems including ozone contact system, ozone monitors and vent ozone destruction systems etc. High technology combined with high quality materials and components form reliable ozone systems that operate even under different environmental conditions.

# **Ancillary Equipment Options Feed Gas Supply**

- Liquid oxygen (local gas supplier)
- PSA Oxygen (On-site generation, Pressure Swing Adsorption)
- Air preparation: air compressor, desiccant dryer, filter
- VPSA Oxygen (Vacuum Pressure Swing Adsorption)

### **Instrumentation and Control**

- Devices for the management of Ozone concentration in gas phase and water
- Ambient gas monitoring with indication and alerting system

## **Cooling Water Supply**

- Chilled water units
- Closed loop cooling water circuits with heat exchangers

## **Containerized System**

- Insulated, painted and air- conditioned container
- Easy adoption of safety standards due to confined area approach
- Plug & Play approach

# **Ozone Mixing and Contacting**

- Side stream injection systems
- Fine bubble diffusers
- Closed reactors
- Degassing tanks
- Demisters

#### **Electronic Process Control**

- Power Distribution Panels
- Main PLC, available with a selection of brands

#### **Ozone Destruction in Off Gas**

- Thermal and Catalytic Ozone Destructors
- With or without Blower

WATER MADE EASY

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# info.dnwt@denora.com

www.denora.com

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