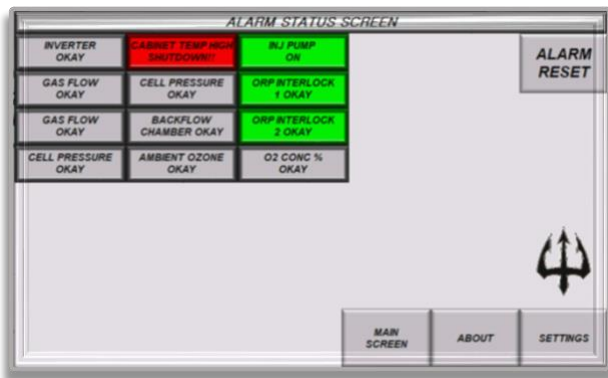# Industry Leading Ozone Generation, Automation, and Controls – All in One Place

Ozone gas can be used to disinfect a water supply when it is injected into a side stream of treatment water. The ozone acts as an oxidant, which safely sanitizes the water with no concerns for by-products.

The Telchine Energy Technologies oxygen fed all-in-one ozone generator system includes all the required equipment and safety systems in a single air-cooled enclosure, for safe and reliable ozone generation and distribution to the injection skid. This includes an onboard oxygen concentration system, ozone generator, ozone ambient monitor, and PLC based controls system with HMI touchscreen. It can run in manual mode, or via our automation and controls platform. The entire system is designed to hold up in harsh, corrosive environments, where other systems will corrode and fail. For even more critical operation, redundant generators are available which can maintain ozone generation even if an ozone cell experiences unplanned downtime.

Telchine ozone generators can be purchased "off the shelf" or built as bespoke generators to match your exact project requirements. Cabinet air conditioning, remote management and control of other process equipment and sensors, multi-zone control with flow splitters, and retrofit units are just some of the features that can be customized.

FEATURES TABLE

Maximum Ozone Generator Dose (grams per hour)	10 g/hr	20 g/hr	30 g/hr	60 g/hr	60 g/hr	70 g/hr	120 g/hr	140 g/hr
System Features								
7-inch HMI Touch Screen	▪	▪	▪	▪	▪	▪	▪	▪
Emergency Stop Pushbutton	▪	▪	▪	▪	▪	▪	▪	▪
Single Point Power to Generator	▪	▪	▪	▪	▪	▪	▪	▪
Integrated Oxygen Concentrator	▪	▪	▪	▪	▪	▪	▪	▪
External Needle Valve Adjustment	▪	▪	▪	▪	▪	▪	▪	▪
Integrated Fail-Safe Backflow Preventor	▪	▪	▪	▪	▪	▪	▪	▪
Enclosure Type (W – Wall, F-Floor)	W	W	W	F	F	F	F	F
Sensor Features								
Integrated Ozone Ambient Monitor	▪	▪	▪	▪	▪	▪	▪	▪
Integrated Mass Flowmeter	▪	▪	▪	▪	▪	▪	▪	▪
Integrated Oxygen Concentration (%)	▪	▪	▪	▪	▪	▪	▪	▪
Integrated Cell Pressure Sensor	▪	▪	▪	▪	▪	▪	▪	▪
Integrated Cabinet Temperature Sensor	▪	▪	▪	▪	▪	▪	▪	▪
Ozone Features								
Industry Leading Ozone Generator Plasma Block Technology	▪	▪	▪	▪	▪	▪	▪	▪
Redundant Ozone Generators		▪		▪			▪	▪
Aftercooler for Increased Moisture Removal				▪	▪	▪	▪	▪
Controls and Integration Features								
ORP Control Four, 4-20mA Analog Inputs	▪	▪	▪	▪	▪	▪	▪	▪
MODBUS Connectivity	▪	▪	▪	▪	▪	▪	▪	▪
Ethernet Connectivity	▪	▪	▪	▪	▪	▪	▪	▪
Connect to Telchine Flow Splitter For Multi-Zone Operation	▪	▪	▪	▪	▪	▪	▪	▪
Real-time Gas Flow Output via HMI	▪	▪	▪	▪	▪	▪	▪	▪
Real-time O2 Concentration Output via HMI	▪	▪	▪	▪	▪	▪	▪	▪
Real-time Cell Pressure Feedback via HMI	▪	▪	▪	▪	▪	▪	▪	▪
Real-time Ozone Percentage via HMI	▪	▪	▪	▪	▪	▪	▪	▪
Real-time ORP Feedback via HMI	▪	▪	▪	▪	▪	▪	▪	▪
Set Point Controls for all Sensors & Features	▪	▪	▪	▪	▪	▪	▪	▪
Full Suite of Automated Alarms and Resets Controlled by Touch Screen HMI	▪	▪	▪	▪	▪	▪	▪	▪

SPECIFICATIONS

| Maximum Ozone Output	Redundancy	Maximum Process Flow Rate	Outlet Connection Size	Voltage	FLA	Enclosure Size	Enclosure Material	Configuration Number
10 g/hr	no	5 LPM	1/4 in Compression	120V 1Φ	6.3 A	A	CS	TE-GEN-010GO-120V1P-CS
							SS4	TE-GEN-010GO-120V1P-SS4
							FG	TE-GEN-010GO-120V1P-FG
				240V 1Φ	3.2 A		CS	TE-GEN-010GO-240V1P-CS
							SS4	TE-GEN-010GO-240V1P-SS4
							FG	TE-GEN-010GO-240V1P-FG
20 g/hr	yes	10 LPM		120V 1Φ	9.2 A		CS	TE-GEN-010GOX2-120V1P-CS
							SS4	TE-GEN-010GOX2-120V1P-SS4
							FG	TE-GEN-010GOX2-120V1P-FG
				240V 1Φ	4.4 A		CS	TE-GEN-010GOX2-240V1P-CS
							SS4	TE-GEN-010GOX2-240V1P-SS4
							FG	TE-GEN-010GOX2-240V1P-FG
30 g/hr	no			120V 1Φ	10 A		CS	TE-GEN-030GO-120V1P-CS
							SS4	TE-GEN-030GO-120V1P-SS4
							FG	TE-GEN-030GO-120V1P-FG
				240V 1Φ	5.6 A		CS	TE-GEN-030GO-240V1P-CS
							SS4	TE-GEN-030GO-240V1P-SS4
							FG	TE-GEN-030GO-240V1P-FG
60 g/hr	no	20 LPM	3/8 in Compression	240V 1Φ	11 A	B	CS	TE-GEN-060GO-240V1P-CS
							SS4	TE-GEN-060GO-240V1P-SS4
							FG	TE-GEN-060GO-240V1P-FG
	yes			240V 1Φ	11.3 A		CS	TE-GEN-030GOX2-240V1P-CS
							SS4	TE-GEN-030GOX2-240V1P-SS4
							FG	TE-GEN-030GOX2-240V1P-FG
70 g/hr	no			240V 1Φ	12.4 A		CS	TE-GEN-070GO-240V1P-CS
							SS4	TE-GEN-070GO-240V1P-SS4
							FG	TE-GEN-070GO-240V1P-FG
120 g/hr	yes	30 LPM	1/2 in Compression	240V 1Φ	17.9 A	C	CS	TE-GEN-060GOX2-240V1P-CS
							SS4	TE-GEN-060GOX2-240V1P-SS4
							FG	TE-GEN-060GOX2-240V1P-FG
140 g/hr	yes	40 LPM		240V 1Φ	23.4 A		CS	TE-GEN-070GOX2-240V1P-CS
							SS4	TE-GEN-070GOX2-240V1P-SS4
							FG	TE-GEN-070GOX2-240V1P-FG

DIMENSIONS

Enclosure Dimensions

Size	Material	Nominal Enclosure Dimensions (in.)		
		Height	Width	Depth
A	Carbon Steel	35.4	29.9	15.7
	Stainless-Steel 304	35.4	29.9	15.7
	Fiberglass	36.0	30.0	16.0
B	Carbon Steel	47.2	35.4	15.7
	Stainless-Steel 304	47.2	35.4	15.7
	Fiberglass	48.0	36.0	16.0
C	Carbon Steel	78.7	31.5	19.7
	Stainless-Steel 304	78.7	31.5	19.7
	Fiberglass	72.0	36.0	24.0

*** exterior dimensions of finished generator may differ from the dimensions stated above. Custom or engineer-to-order systems, refer to submittal sheet for configured dimensions.*

Enclosure Size A
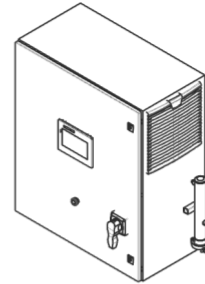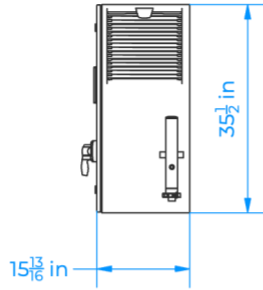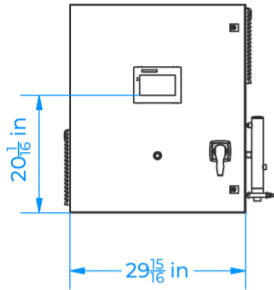
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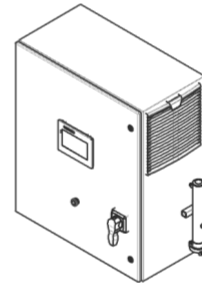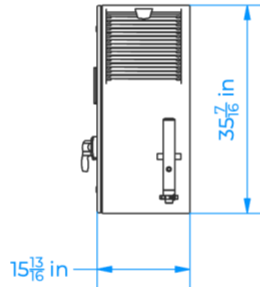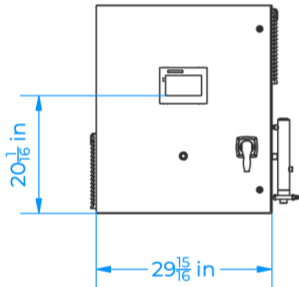
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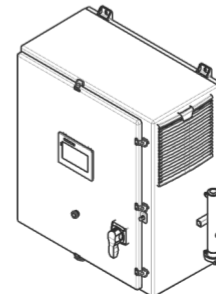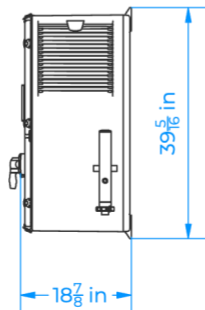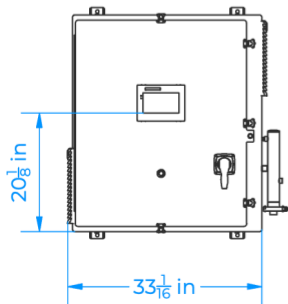
Fiberglass

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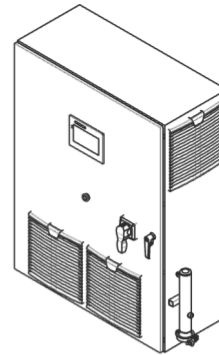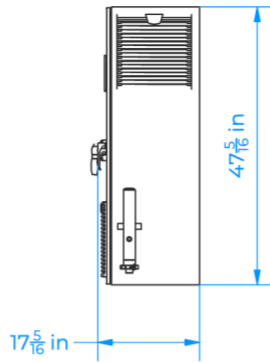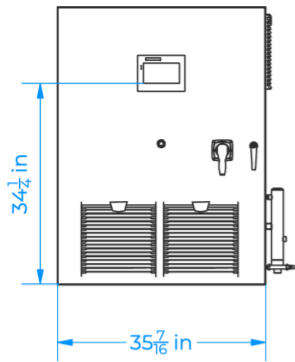
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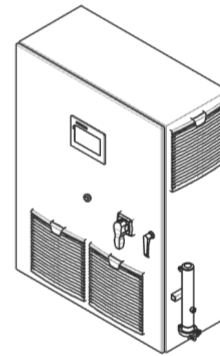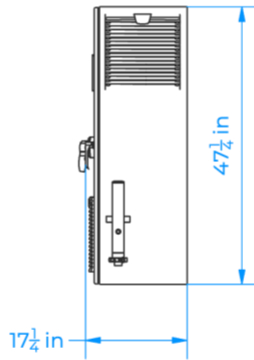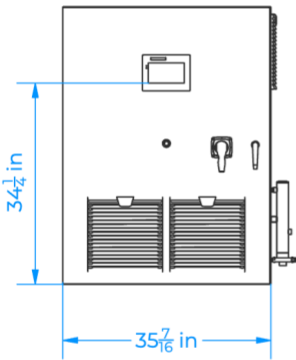
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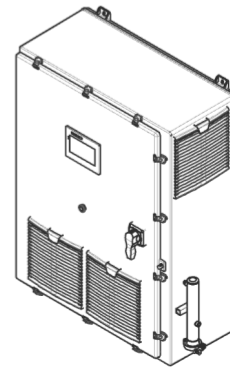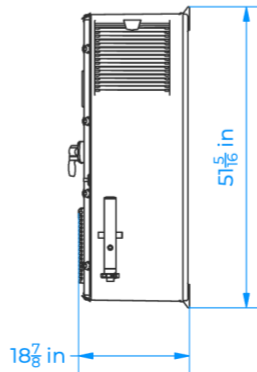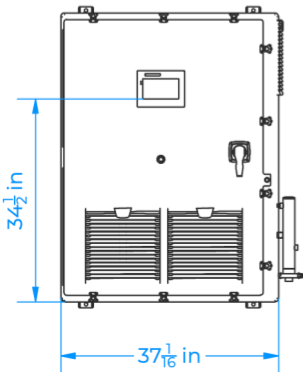
Fiberglass

Enclosure Size C
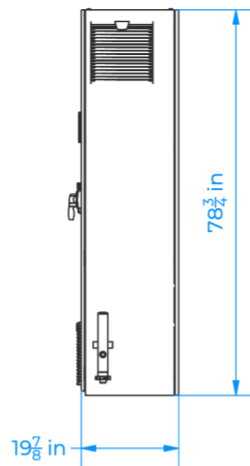
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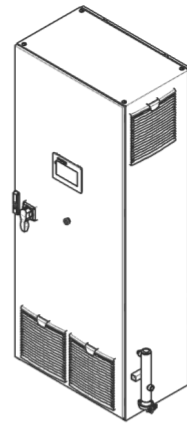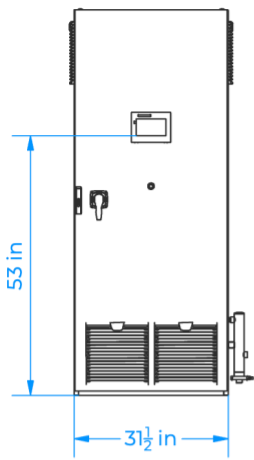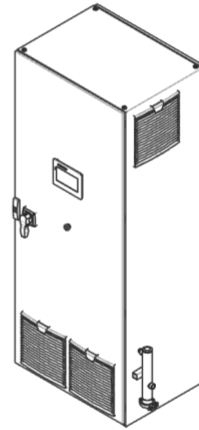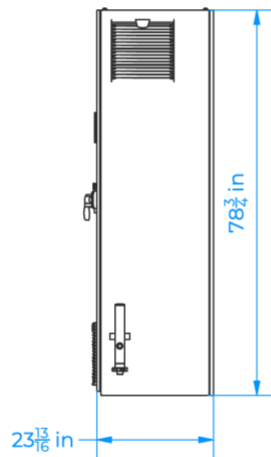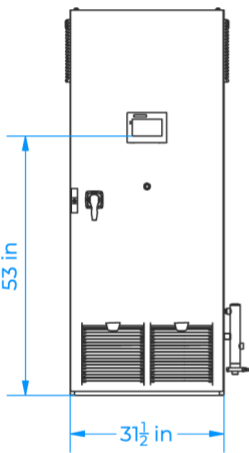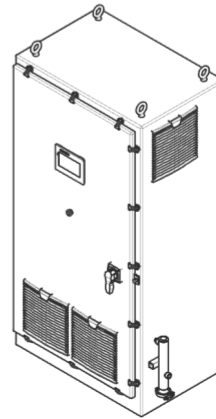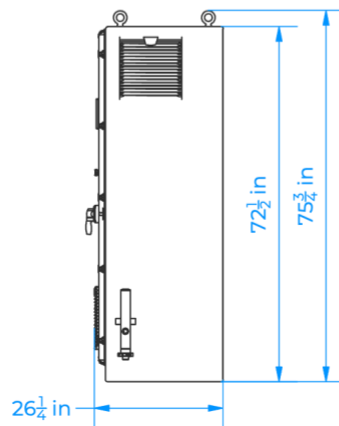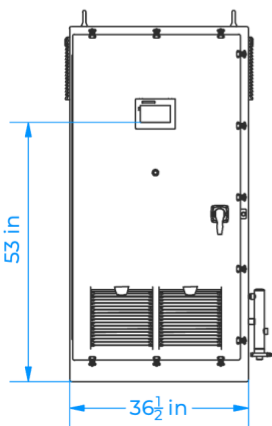
Stainless Steel 304

Fiberglass

SPARE PARTS

The ozone generator includes some wearable parts that will need to be serviced. Telchine sells an annual service kit as well as individual service kit for these wearable components. We design the generators specifically with maintenance in mind.

Major Wearable Components Include:

- Oxygen Sieve Beds
- Compressor Replacements.
- Plasma Block Rebuild Kits
- Enclosure Filters
- Air Compressor Inlet Filters
- Ozone Ambient Monitor Sensor

To order a kit, submit a service ticket to info@telchine-rd.com