# Benefits of Ultraviolet Light Water Filtration for Commercial Poultry Operations

HYDRA by TOMIGUNN UV sterilization systems offer a safe and efficient water purification solution without chemicals, and the following particulars are provided.

#### SAFE

- No need to handle toxic or corrosive chemicals or byproducts
- Microbiologically free water without the use of potentially dangerous chemicals
- UV imparts no change in taste, odor, pH or conductivity

# **SIMPLE**

- Fast and simple installation with three connections (two water and one electrical)
- Maintenance involves annual lamp replacement (provided water quality parameters are met) with no need to turn off water flow
- Automatic, unattended and user friendly operation

# **ECONOMICAL**

- No moving parts to wear out or break
- Lower capital investment compared to chlorine or ozone systems



We tailor the parameters of your HYDRA system based on the results of a simple water quality test.

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#### **EFFICIENT**

- Compact units with 304 or 306 (upon request) reactor chamber, polished for laboratory and medical use. Requires minimum space
- Microorganisms are inactivated within seconds; eliminates the need for long retention times or retention tanks
- Very low power consumption; less than 40-watt bulb to effectively treat 1 to 100 gallons per minute
- High output low pressure mercury vapor lamps with high isolation pin
- Little change in water pressure even after prolonged periods of no water flow
- Open-end high-quality quartz sleeve and stainless-steel gland units

# WATER QUALITY

Water quality plays a major role in the transmission of germicidal ultraviolet rays. It is recommended that the water does not exceed the following maximum concentration levels.

Maximum Concentration Levels

Parameter | Value

Iron | < 0.3 ppm (0.3 mg/L) Hardness | < 7 gpg (120 mg/L)

Turbidity | < 1 NTU

Manganese | < 0.05 ppm (0.05 mg/L) Tannins | < 0.1 ppm (0.1 mg/L)

UV Transmittance | > 75%

Effectively treating water with higher concentration levels than listed can be accomplished but may require added measures to improve water quality to treatable levels..



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66 UV water filtration boosts poultry health, cuts pathogens without chemicals, enhances water taste, reduces biofilms and cuts expenses.

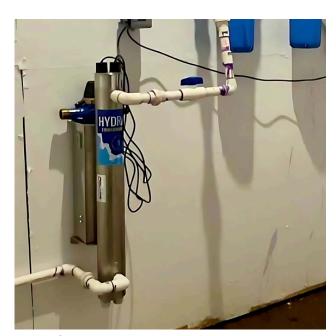
### **UV** Dose

The units generate a UV dosage of at least 30,000 microwatt-seconds per square centimeter ( $\mu$ W-s/cm²), even at the end-of-lamp life (EOL), which is more than sufficient to destroy most waterborne microorganisms, such as bacteria, yeasts, algae, etc.

HYDRA by TOMIGUNN sterilization systems utilize a natural quartz sleeve to protect the lamp and allow the maximum amount of UV rays to penetrate and disinfect water.

HYDRA by TOMIGUNN sterilization systems germicidal lamps are specially designed UV radiation lamps which produce a rated wavelength of 254nm.

HYDRA by TOMIGUNN sterilization systems are your best choice in UV sterilization. With its durable construction, high quality quartz sleeve and performance lamps, you can't go wrong.



UV purification inactivates microorganisms within seconds without producing harmful chemicals.

## **FEATURES**

- · Audible ballast with LED lamp out indicator
- High output low pressure mercury vapor lamps with high isolation pin design
- Open end quartz sleeve and stainless-steel gland units
- Operating temperature and sealing efficiency
- Limited 5-year warranty on stainless steel housing
- Limited 1-year warranty on electronics

Eliminating harmful microorganisms in drinking water without chemicals.



Cyanobacteria



E.Coli



Bacillus