

Using PureCide®E as a single-liquid precursor, patented electrochemical cells produce 99.5% pure, chlorine-free ClO₂ solution.

PureLine's innovative design delivers ClO₂ solution on-demand safely and efficiently without the need for an external chlorine dioxide storage tank. The remote on-off capability offers process feedback control.

A proportional-integral-derivative (PID) control action accurately maintains set chlorine dioxide concentration. Other features include a programmable logic controller (PLC) with a color touch-screen operator interface terminal (OIT) and integrated distributed control system (DCS) capability.

REACTION CHEMISTRY:



Pure Advantages

- Single-liquid chemical precursor PureCide®E
- Produces 99.5% pure ClO₂
- Recirculating anolyte loop
- Long-life electrolytic cells, no cartridges
- No chlorine, bromate, perchlorate, chlorite or chlorate in the product
- ClO₂ delivery up to 105 psi
- No ancillary equipment
- No batch tanks required

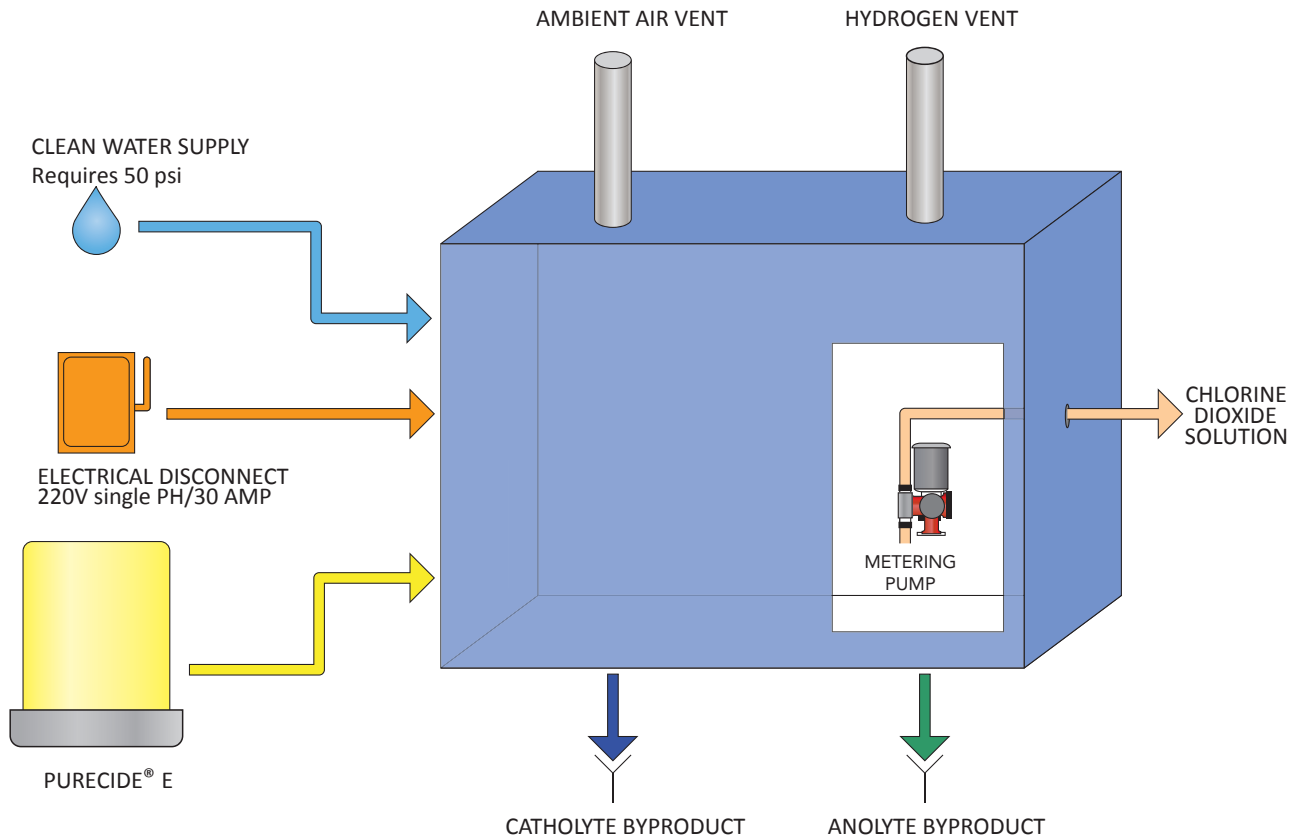
Pure Chemistry

PureLine's patented ClO₂ technology offers many benefits:

- Does not form THMs
- EPA/RMP & OSHA PSM compliance
- Meets crypto and DBP requirements
- Efficacy over broad pH range
- Iron & manganese reduction
- Taste & odor control
- Removes color
- TOC reduction
- Low operating costs
- NSF certified



HP SERIES CHLORINE DIOXIDE GENERATOR



Available Capacities:

1, 3, 10, 20, 40, 100, 250 & 500 lbs/day

Precursors:

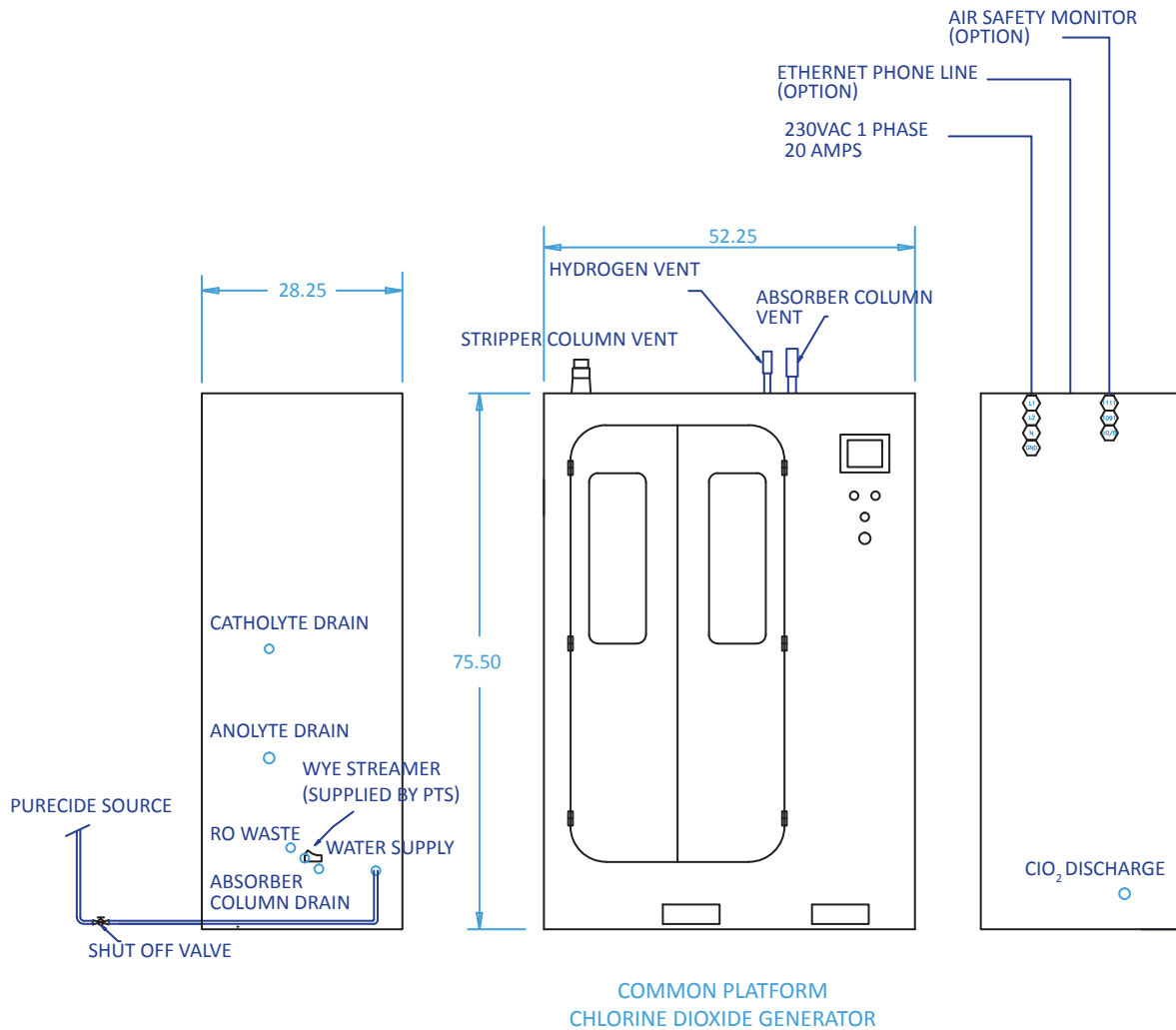
PureCide® E & Electricity

Reaction Chemistry:



Generator Size Lbs/Day	Max Water Usage Gal/Day	Max Electrical Consumption KW/Day	PureCide® E Consumption Lbs/Day	Max Catholyte Waste Gal	Max Anolyte Waste Gal	Max RO Waste Gal
3	135	53	17	2	1	9
10	450	63	55	6	3	28
20	900	85	110	12	6	57
40	1,800	105	220	24	12	114
100	4,500	230	550	58	31	285
250	11,250	660	1,375	144	77	714
500	22,500	1,382	2,750	289	155	1,428

PURECLO₂ ELECTROCHEMICAL CHLORINE DIOXIDE GENERATORS



Notice:

Please complete a PureLine site audit and contact your PureLine representative to review your application's piping and quill dimensions for possible back-pressure limitations prior to your planned installation.

Generator specifications:

- Capacity: Up to 500 lbs/day ClO₂ solution variable delivery
- Chemical Usage: PureCide®E 5.5 lbs/lb of ClO₂
- Electrical Power: 220VAC, 1PH, 30A service
- Water Requirement: 50 psi minimum for RO water and absorber column @ 3000 ppm concentration
- ClO₂ Injection: Up to 2 internally-housed, independently-controlled distribution pumps capable of delivering ClO₂ solution up to 150 psi

Process interface:

- PLC & OIT: Allen Bradley PLC and color touch screen
- Remote Start Stop: Via external contact for the distribution pump
- Flow Pace / PID Mode: Distribution pump output proportional to an external 4-20mA signal
- Outputs: Alarm and running status via Form-C dry contact
- Residual monitor: 4-20mA signal (optional)

Safety interlocks:

- ClO₂ Gas/Air Flow: Shutdown upon insufficient air flow through stripper column
- Low Anolyte Flow: Shutdown if anolyte loop flow rate is insufficient
- Low RO Water Pressure: Shutdown on loss of RO water to catholyte loop
- H₂ Blower Failure: Shutdown ClO₂ production on loss of hydrogen dilution
- High Cell Temperature: Shutdown ClO₂ production on cell temperature above 145° F
- Cell Amperage: Shutdown ClO₂ production if cell amperage out of specification
- Run Permissive Interlock

Dimensions:

- Overall: 52.25" W x 75.5" H x 28.25" D
- Weight: 636 lbs (1,004 lbs with crate)

Process Connections:

- PureCide®E Inlet: 1/2" FEP Sch.80 PVC stainless steel reinforced
- RO Waste Outlet: 1/2" NPT, Female Sch.80 PVC stainless steel reinforced
- Absorber Drain Outlet: 1/2" NPT, Female Sch.80 PVC stainless steel reinforced
- Anolyte Effluent Outlet: 1" NPT, Female Sch.80 PVC stainless steel reinforced
- Catholyte Effluent Outlet: 1/2" NPT, Female Sch.80 PVC stainless steel reinforced
- Distribution Pump Outlet: 1/2" FPT Sch.80 PVC stainless steel reinforced
- Hydrogen Vent: 1.5" Sch.80 PVC pipe
- ClO₂ Vent: 2" Sch.80 PVC pipe

Enclosures:

- Process Cabinet and Electrical Enclosure: PVC