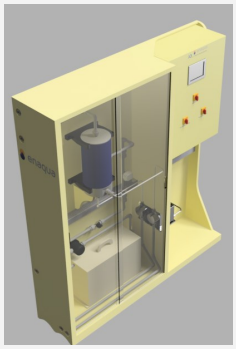
Chlorine dioxide generation







iOX ClO2 1000C-2C Batch

Chlorine dioxide generation chemistry.

The iOX ClO2 1000C-2C Batch chlorine dioxide generation system utilizes 2 concentrated precursor chemicals, namely 25% Sodium Chlorite and 30-33% Hydrochloric Acid, to generate up to a 2g/L chlorine dioxide solution concentration into the batch tank from where it can be dosed. This is undertaken via the following chemical reaction:

$5NaClO_2 + 4HCl \longrightarrow 4ClO_2 + 5NaCl + 2H_2O$

System specifications.

- Maximum Capacity: 1000g/hr as ClO_2
- Precursor Chemical Usage: at max 6Kg/hr of 25% $NaClO_2$ and 6Kg/hr of 30-33% HCl
- Water Usage: 500L/hr
- Precursor Inlet Connections: 2 x 20mm PVC Union Connection
- Water Inlet Connection: 20mm PVC Union Connection
- ClO_2 Stream Outlet Connection: 20mm PVC Union Connection
- Power Requirements: 230VAC, 50Hz, 16A.
- Standard PLC: Delta DVP SV2 Series High Performance Slim PLC (Other options available as special request)
- Standard HMI: Delta DOP-100 series 7” HMI
- (Other options available as special request)
- Batch Tank Capacity: Select option
- Precursor Chemical Tank Capacity: Select option

Intelligent Oxidation Solutions

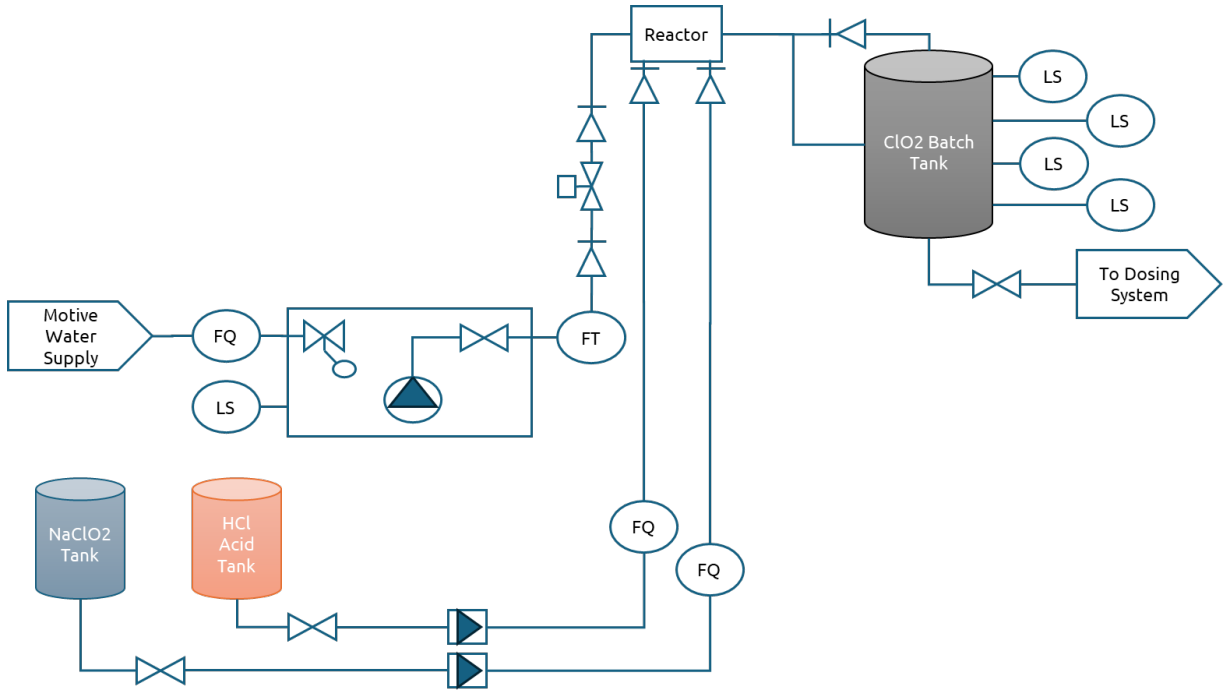
System features.

- Submerged reactor.
- Low level switches for each precursor chemical tank.
- Flow control valve to regulate flow within correction range.
- Flow transmitter with high and low flow alarm limits to ensure flow within correct range.
- High high level switch on batch tank alarms and interlock is case of overfill.
- Low low level switch on batch tank alarms and interlocks on tank low level.
- Precursor flow checker option that alarms and interlocks on deviation from set flow range.
- Auto batch mode operation the level is batched between the high level switch and the low level switch in the batch tank.
- Manual operation option to allow for manual fill of the batch tank and problem solving on system, wherein the operator can start or stop the system.
- Fully PLC controlled operation with intuitive HMI navigation on a 7” colour touch screen HMI.
- Password protected access with 3 levels of access.
- Totalisers and system run-time counters.

Configuration Options.

- Batch Tank Size: 500L/ 1000L/ 1500L/ 2500L
- Precursor Chemical Tank Size: 500L/ 1000L/ 1500L/ 2500L
- Bunding (Batch & Precursor Tanks: Included/ excluded and/or based on tank size.
- Precursor Flow Checkers: Add-on option.
- Dosing System Package: Add-on option subject to requirements.

Basic Process Flow Diagram.



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System Drawings & Dimensions.

