Chlorine Dioxide System Bello Zon® CDVd

Chlorine dioxide system Bello Zon® CDVd is for the treatment of medium to large volumes of water with diluted chemicals.

2 – 2,000 g/h of chlorine dioxide. Maximum volume of water that can be treated with metering of 0.2 ppm ClO_2, depending on the size of the system: 50 - 10,000 m^3/h

The chlorine dioxide system CDVd is very user-friendly. The system control offers impressive and intuitive menu guidance and ensures the precise production of chlorine dioxide. The special reactor concept generates chlorine dioxide safely and simply. Food-compatible PVDF is used instead of the PVC generally used in the industry. You benefit from maximum output with the lowest possible consumption of chemicals and maximum operating safety. Communication via popular bus systems, via a web server and our DULCOnneX Platform fulfils all the requirements set by the Industry 4.0 standards of tomorrow.

The system meets all the requirements of the DVGW specifications W 224 and W 624 with regard to construction and operation and is intended for operation with diluted chemicals Bello Zon® chlorite (7.5% $NaClO_2$) and acid (9% HCl). The liquid levels of the starting chemicals can either be displayed and monitored by external liquid level sensors or by adaptive liquid level monitoring for which a patent has been applied.

Your benefits

- Maximum operating safety and purity of the ClO_2 produced by PVDF reactors and three-stage safety concept
- Communication interfaces via bus systems, web server or DULCOnneX
- System does not stop due to empty starting feed chemical tanks, thanks to precise level indicators
- Verification of the chlorine dioxide metering and system output: For consumption levels which can be planned and enhanced system availability
- Automatically generated reports and alarms: For simplified compliance with documentation obligations and to demonstrate correct operation
- Remote monitoring in potentially dangerous environments: At a safe distance, but still on-site - DULCOnneX. For more information: **https://dulconnex.prominent.com/welcome.html**

Field of application

- Municipal potable water and sewage treatment
- Industrial process and cooling water
- Disinfection in the food and beverage industry, above all with inlet water treatment

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Technical Data

Type	Chlorine dioxide capacity*		Max. operating pressure**	Operating temp.	Suction-side connector dimension of calibration vessels		Dimensions of the bypass connector
	min.-max./ hour	min./day			Chlorite	Acid	
	g/h	g/d	bar	°C			DN
CDVd 45	2–45	16	8	10–40	6x4	6x4	25
CDVd 120	6–120	40	8	10–40	6x4	6x4	25
CDVd 240	12–240	80	8	10–40	8x5	8x5	25
CDVd 600	30–600	140	8	15–40	12x9	12x9	25
CDVd 2000	100–2,000	468	5	15–40	Pressure hose nozzle d16	Pressure hose nozzle d16	40

Type	Dimensions*** H x W x D (mm)	Weight	Power consumption (max.) ****		Power consumption		Chemical consumption at 100% system capacity *****	
			230 V	115 V	without bypass pump	with bypass pump	HCl (9 %)	$NaClO_2$ (7.5 %)
	mm	kg	A	A	W	W	l/h	l/h
CDVd 45	1,300 x 1,000 x 250	55	3.8	1.6	100	630	1.1	1.1
CDVd 120	1,300 x 1,000 x 250	55	3.9	1.6	110	640	2.9	2.9
CDVd 240	1,300 x 1,000 x 250	59	3.9	1.8	120	650	5.7	5.7
CDVd 600	1,525 x 1,160 x 253	84	4.0	1.9	220	750	14.3	14.3
CDVd 2000	2,000 x 1,320 x 290	129	–	2.6	300	–	47.6	47.6

* The metering figures relate to 5 or 2 bar back pressure and an ambient temperature of 20 °C. The minimum capacity/per hour is based on the fact that when the plant is operating at below 5% of the nominal power, continuous metering is no longer possible due to the then low pumping frequency of the metering pumps. The reactor contents should be changed at least twice daily with systems that do not work continuously. Therefore do not operate the system below the stated minimum capacity/day.

** at an ambient temperature of 35 °C

*** including main system, pre-dilution and rinse valve, without bypass pump and water feed section

**** 230 V figures with bypass pump (CDVd 45-600), 115 V figures without bypass pump

***** Sodium chlorite ($NaClO_2$) 7.5 %, purity in accordance with EN 938, hydrochloric acid 9%, purity in accordance with EN 939. The chemical consumption may vary depending on the temperature.

Ambient conditions:

Permissible relative air humidity (non-condensing)	max. 85% rel.
Permissible ambient temperature	40 °C
Permissible temperature of chemicals	10 … 35 °C
Storage and transport temperature	-10 … +40 °C
Degree of protection	IP 65

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