EMEC
WATER TREATMENT SYSTEMS

General catalogue

EMEC

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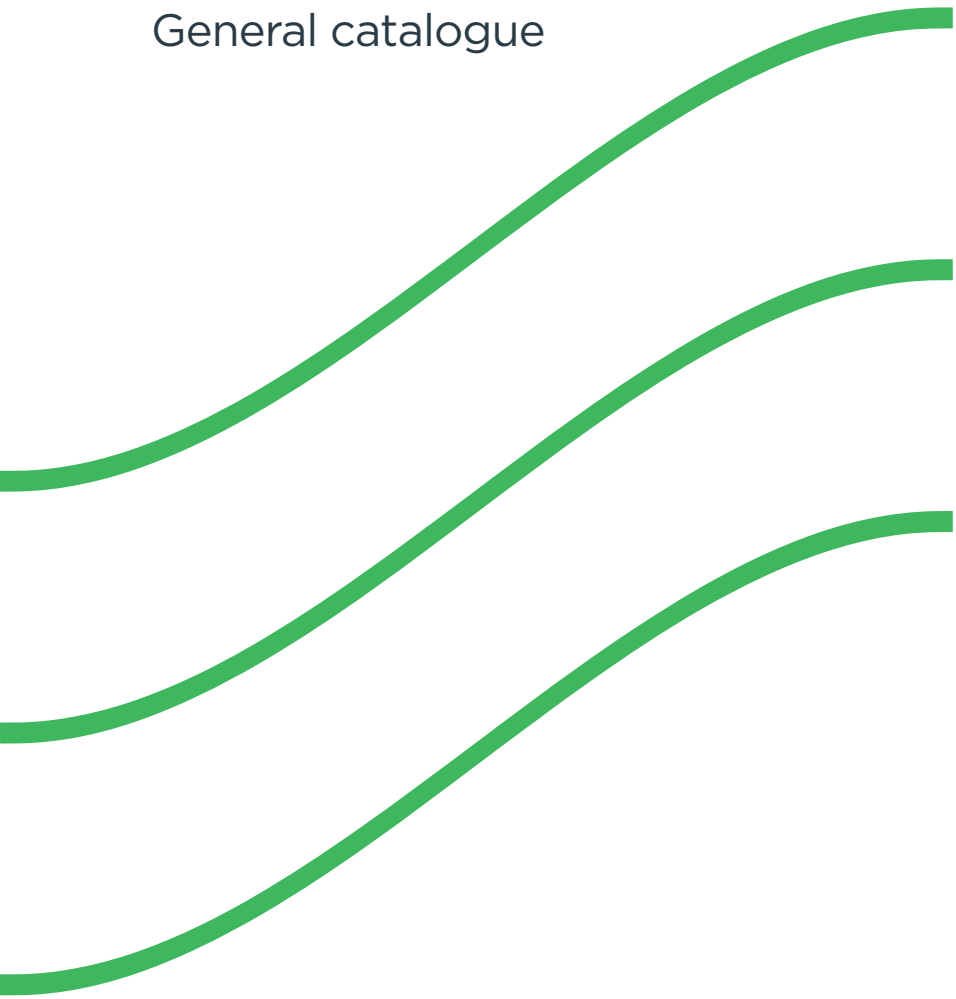
General catalogue




emec

SIMPLE AS WATER

Water is a vital element. We are connected to it by a covenant of respect and pure gratitude.
For over 35 years we have been working to make the human-water relationship more harmonious, safe and natural, drawing from a single source of inspiration.

The semplicity.

Flexibility, with three fundamental principles

Since 1982, we have been designing and producing reliable, cutting-edge instruments for water treatment and chemical dosage. In a world that changes so fast, flexibility and innovation are fundamental to us.
As a company, we are open to change, because we are rooted in three fundamental principles: constant research, extreme precision, healthy relationships.

CONSTANT RESEARCH

Being at the cutting edge means constant study. Our R&D and design departments are where our heart beats.
Extremely high-profile engineers and technicians are committed to developing software and designing hardware, but also to studying and evaluating hydraulic and mechanical components.
Just like water, we have branched out over time, spreading out into wide-ranging areas.

- Industrial water treatment
- Purification plants
- Treatment of water used in industrial processes
- Chemical-physical purification processes
- Bacteriological purification systems
- Sewage irrigation plants
- Chemical industry
- Food processing Industry
- Cooling towers
- Refineries
- Wellness centres
- Swimming pools
- Car washes

EXTREME PRECISION

Our second fundamental principle is complete control of our production line.
We are entirely responsible for every stage of the process, from invention to delivery. Our products undergo up to 10 quality checks and are tested four times before reaching the customer.
The quality management system of our production process is ***ISO 9001*** certified and has customer satisfaction as its ultimate goal, as well as continuous improvement of company performance.
Customers satisfaction comes hand-in-hand with ensuring safety for them, their operators and final users.
Our dosing pumps and controllers are ***UL*** certified to guarantee full compliance with general requirements for safety of use, while ***NSF*** certifications guarantee that our pumps do not release hazardous pollutants into the water and therefore are fully safe for use in contact with drinking water, for example in the food production industry, or at recreational facilities like swimming pools and spas.

HEALTHY RELATIONSHIPS

Extremely high performance, top quality and high technology are our greatest assets. But there is more.
Every day, we safeguard something equally important: human capital.
Our co-workers are the best professionals on the market; the most expert and competent people.
For this reason our organizational model is designed to manage their safety and health in an organic and systematic way, respecting the international standard ***BS OHSAS 18001.***
At the moment our company numbers nearly 200 employees, 35% of these are women. Statistically, this is a highly respectable percentage in a technical sector like ours. It is a number that is destined to grow.

The difference between consultant and supplier

Over the years, we have learnt to be good listeners, which is fundamental to an understanding of customers' real needs. This delicate task is handled by our Business Unit, which is entirely made up of technicians.
Their in-depth knowledge of every step of the production process makes it possible for them to offer focussed consulting, both for the choice and the personalisation of products.
We can offer a high level of customisation, which ranges from branding to hardware and software modifications made to standard models.

A BACK OFFICE THAT IS ALWAYS UP FRONT

It is one of the feathers in our cap: a helpful and competent back office. Every day, their important contribution ensures that every aspect of our supply process is impeccable. This excellent care and attention contributes to the fact that the number of customers who choose to leave us is close to zero.

QUALITY FROM THE OUTSET TO AFTER-SALES

For us, closing a deal does not mean the end of a relationship. We remain at our customers' disposal to make sure that, over time, our products are working properly. We are ready to respond to any request in real time, even outside office hours.

COMPETENCE THAT SETS A PRECEDENT

As leaders in our sector, we realise that we have a great responsibility: preparing specialists and customers so that they can use the products we produce in the best possible way.
That is why we created the Emec Training Program: a series of training courses dealing with installation and maintenance in both private and company contexts.
Our training and refresher courses are run at our expense; and that includes participant's logistics costs. So you do not have to pay, but you earn in terms of competence.

A world of care and attention

Water is the vital element on which our business is based. The least we can do to respect this inestimable resource is treat the environment in the best possible way. It is not just about abiding by laws, it is about respect for our ethics.

LESS IMPACT, MORE SUSTAINABILITY

We think of sustainability as an endless path: each responsible step we take further reduces our company's environmental footprint.
To this end, we have adopted an Environmental Management System compliant with the international standard **ISO 14001**. This makes it possible to reduce atmospheric and acoustic emissions well below the prescribed limits; to rationalise consumption of water, electricity and gas; and to reduce the production of waste and the contamination of the land.
Sustainability also means giving waste material a second life: we recycle or reclaim 93% of circuit boards, paper and plastic; as well as shreds or chips of iron, aluminium, copper, bronze, brass and wood. In addition, we are equipped with an extractor that separates water from oil during the machine cleaning process, so that it can be reused in the production process.

MAXIMUM EFFICIENCY. STARTING WITH ENERGY

We have opted for renewable energy sources, state-of-the-art boilers, and intelligent air conditioning. This has made it possible for us to drastically reduce our consumption of gas and electricity. The only energy we do not want to save is the one we put into our work.

FROM GOOD INTENTIONS TO BEST PRACTICES

Everything we do to improve sustainability is shared with our employees, collaborators and partners through information and training activities. Every update is included in our Integrated System Manual: a tool that we ask everyone to respect in order to ensure that good intentions correspond to the day to day practices at work.

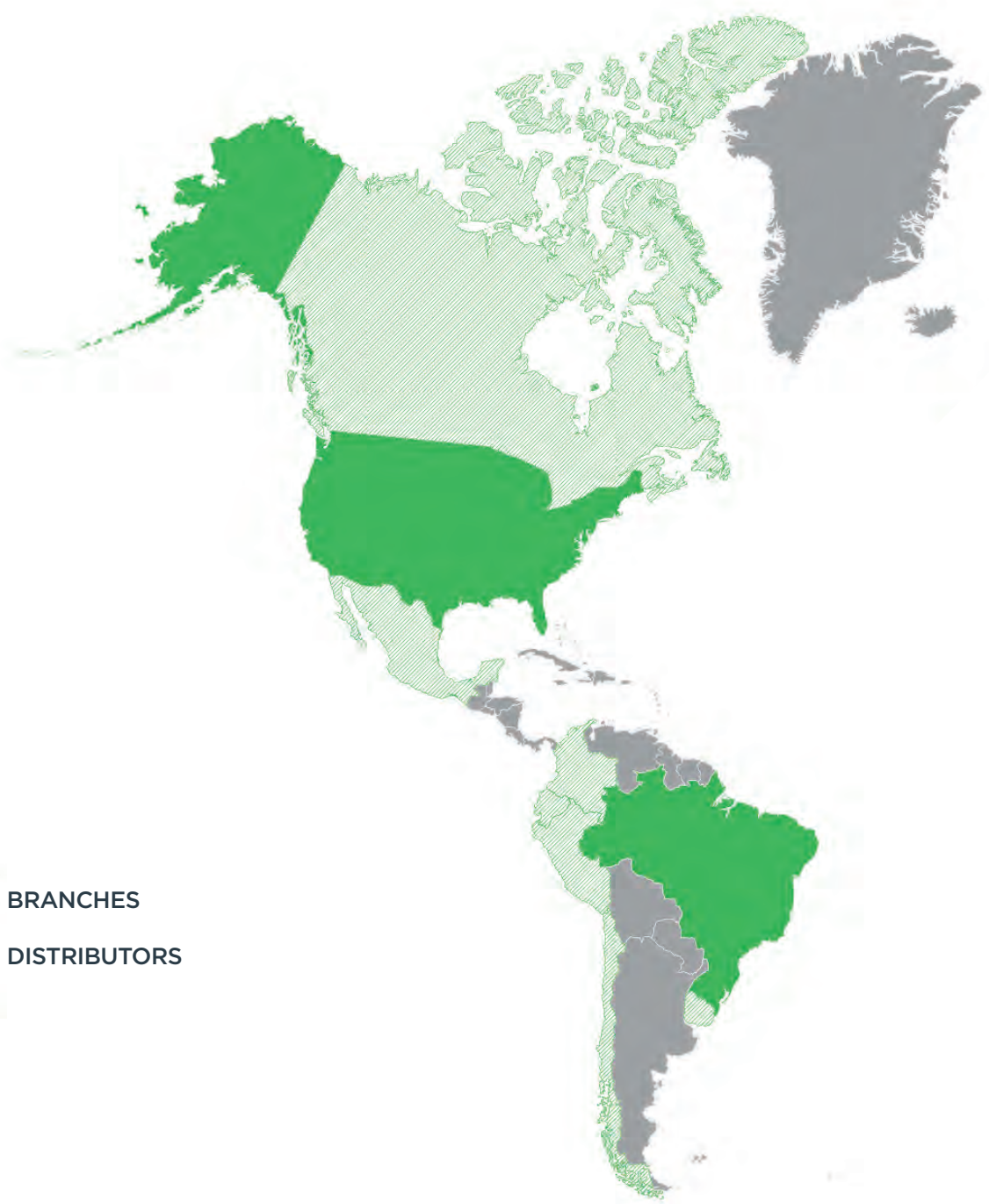
EXCLUSIVE DISTRIBUTORS FOR EXCLUSIVE QUALITY

Becoming an exclusive Emec dealer in your country is an excellent opportunity for a variety of reasons:

- The excellent value for money of our references;
- Our company is extremely solid with a long-standing management structure;
- Guaranteed, qualified support to manage processes and solve technical and administrative problems;
- An in-house shipping department that can guarantee lead times (from order to shipment) to any country in the world;
- Access to training and refresher courses;
- Assistance is available directly online and can be accessed at any time. through the Reserved Area on **emecpumps.com**;
- Precious support for branding and communication.

NOTHING IS MORE SIMPLE THAN COMPLEXITY

The numbers speak for themselves. We are an extremely prolific company, with high-level technical know-how. We manage articulate and complex processes with increasingly sophisticated standards of innovation.



EMEC
SIMPLE AS WATER

188 employees in Italy
54 countries
10 branches
24 distributors
150.000 dosing pumps/year
30.000 controllers/year
5.000 all-in-one solutions/year

MADE IN ITALY

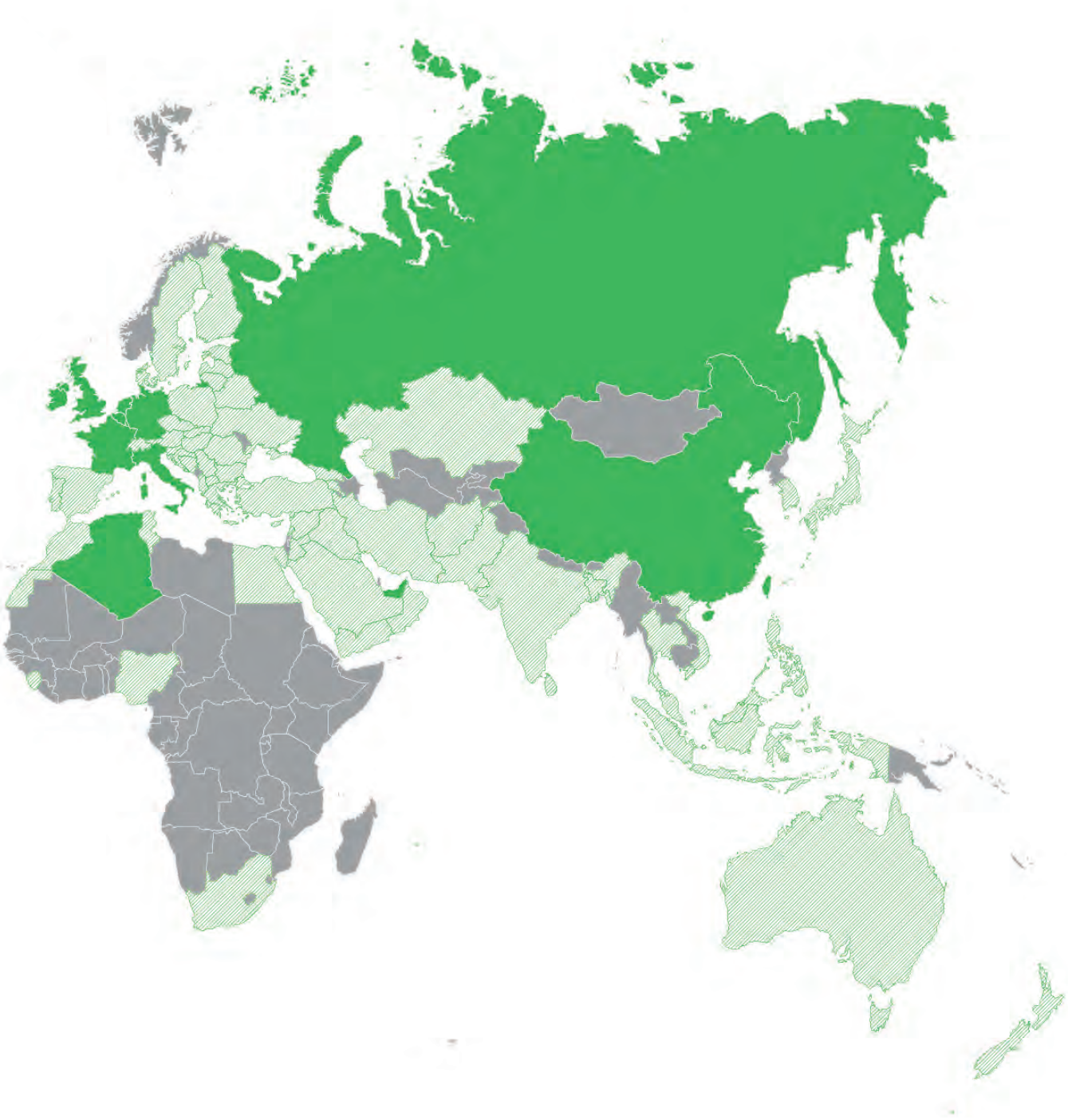
100% MADE IN ITALY
All our products are 100% Made in Italy

5 YEARS WARRANTY

WARRANTY
5 years warranty for our dosing pumps and controllrers.
Terms and conditions apply

Emec Worldwide

And all with the same objective: *to make the lives of companies and professionals increasingly simple.*



OUR CERTIFICATIONS

OUR SOCIAL CHANNELS

INDEX

Dosing Pumps

ERMES

Controllers

Pre-configured solutions, skids, cabinets and dosing stations

PRISMA Series

Stepper motor dosing pumps

PRISMA

MAX FLOW
80 l/h

MAX PRESSURE
25 bar

POWER SUPPLY
12-24 VDC
90-240 VAC

VENTING
Manual

FEATURES

- PVDF pump head and accessories
- Stepper motor
- Multifunctional software
- High-strength PTFE diaphragm
- Horizontal mounting
- RGB backlit LCD display

STEPPER MOTOR

SLOW MODE | TURNDOWN RATIO 1:4800 | MULTI-COLOUR DISPLAY | MULTIFUNCTION

WORKING MODES

CONSTANT | PPM ADVANCED | CONSTANT WITH EXTERNAL INPUT | PPM | % | mA | PAUSE-WORK | WEEKLY | MLQ | CC/PULSE | VOLT | BATCH EXTERNAL/MANUAL

PUMP HEADS

PVDF | **PP** | **SS** AISI316L | **PMMA**

ACCESSORIES

Foot filter with level probe

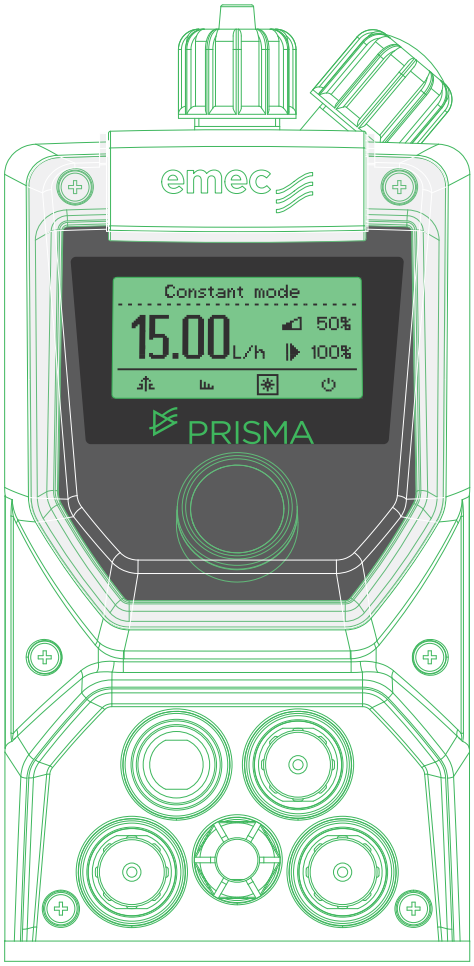
Injection valve 1/2" or 3/4"

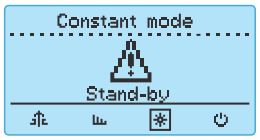
PRISMA stepper motor-driven dosing pump has been designed by EMEC to be the best solution for offering high-accuracy metering and extreme reliability.

Thanks to the new stepper motor and to the Multifunction software, **PRISMA** dosing pumps offer complete control over dosing speeds and working modes as well as great flexibility, meeting even extremely complex application needs.

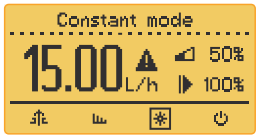
INFO COLOR SCREEN

REAL-TIME FLOW

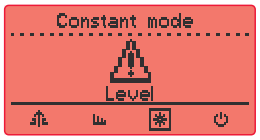




STAND-BY
White



WARNING
Yellow



ALARM
Red

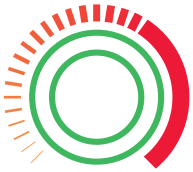
PRISMA dosing pumps feature the Encoder control knob for quickly browsing through the menus and a large display to easily regulate and control the working parameters.

By changing background colors the backlight display can also signal different working status.

TURNDOWN

PRISMA stepper motor-driven pumps give you the most accurate control over the stroke speed, providing an outstanding turndown ratio of up to **4800:1**.

It means **PRISMA** can split up the dosing process into a maximum of **4800 steps** in order to offer the most homogeneous and precise distribution of the product to dose according to the required application.



SLOW MODE

Extreme versatility of **PRISMA** dosing pumps is also due to **Slow Mode** function.

With Slow Mode enabled you can reduce the suction speed from **100** to **30%** of the normal speed, making easier and more reliable the priming and the dosing even when you have to work with particularly viscous liquids.

AMS Series

Solenoid-driven dosing pumps

FEATURES

- Electronic flow rate adjustment
- Mechanical adjustment of single injection volume (from 100% to 0%)
- Manual or automatic venting
- High-strength PTFE diaphragm
- Horizontal mounting
- Standard PVDF pump head and accessories

MAX FLOW

60 l/h

MAX PRESSURE

25 bar

POWER SUPPLY

230 VAC
115 VAC
24 VAC
12-24 VDC
Compressed Air

VENTING

Manual
Self

DIGITAL

AMS MF | PH | RH

AMS MF multifunction

AMS PH built-in pH-meter (reading & adjustment)

AMS RH built-in ORP-meter (reading & adjustment)

ANALOG

AMS PLUS | CL PLUS | CO PLUS

AMS PLUS constant / constant 1-10
multiplier 1-10
divider 1-10 / 1-100 / 1-1000
mA signal

AMS CL PLUS constant with level control and 1/10 divider

AMS CO PLUS constant with 1/10 divider

PUMP HEADS

Also available with configuration:

- **Manual venting**
- **Compressed air**
- **Self venting**
- **Viscous liquids**
- **Low-viscosity liquids**

PVDF **PP** **SS** AISI316L **PMMA** **LPV** **P**

ACCESSORIES

Foot filter with level probe

Injection valve 1/2" or 3/4"

K Series

Solenoid-driven dosing pumps

FEATURES

- Electronic flow rate adjustment
- Mechanical adjustment of single injection volume (from 100% to 0%)
- Manual or automatic venting
- High-strength PTFE diaphragm
- Horizontal mounting
- Standard PVDF pump head and accessories

MAX FLOW

18 l/h

MAX PRESSURE

20 bar

POWER SUPPLY

90-240 VAC
24 VAC
12-24 VDC

VENTING

Manual
Self

DIGITAL

KMS DC | MF | PH | RH | CL

KMS DC constant

KMS MF multifunction + weekly timer

KMS PH built-in pH-meter (reading & adjustment)

KMS RH built-in ORP-meter (reading & adjustment)

KMS CL built-in chlorinometer (reading & adjustment)

ANALOG

K PLUS | CL PLUS | CO PLUS

K PLUS constant / constant 1-10
multiplier 1-10
divider 1-10 / 1-100 / 1-1000
mA signal

K CL PLUS constant with level control and 1/10 divider

K CO PLUS constant with 1/10 divider

PUMP HEADS

Also available with configuration:

Manual venting **Self venting** **Low-viscosity liquids**

PVDF **PP** **SS** AISI316L **PMMA** **LPV**

ACCESSORIES

Foot filter with level probe

Injection valve 1/2”

T Series

Solenoid-driven dosing pumps

FEATURES

- Electronic flow rate adjustment
- Manual or automatic venting
- High resistance diaphragm
- Wall mounting
- Standard PVDF pump head and accessories

MAX FLOW

100 l/h

MAX PRESSURE

20 bar

POWER SUPPLY

230 VAC
115 VAC
24 VAC
12-24 VDC

VENTING

Manual
Self

DIGITAL

TMS DC | MF | PH | RH

TMS DC constant

TMS MF multifunction + weekly timer

TMS PH built-in pH-meter (reading & adjustment)

TMS RH built-in ORP-meter (reading & adjustment)

ANALOG

T CL | CO

TCL constant with level control

TCO constant

PUMP HEADS

Also available with configuration:

Manual venting **Self venting** **Compressed air**
Viscous liquids

PVDF **PP** **SS** AISI316L **PMMA** **P**

ACCESSORIES

Foot filter with level probe

Injection valve 1/2" or 3/4"

V Series

Solenoid-driven dosing pumps

FEATURES

- Electronic flow rate adjustment
- Manual or automatic venting
- High-strength PTFE diaphragm
- Wall mounting
- Pump head and standard accessories in PVDF
- Also available in silenced and ultra-silenced versions

MAX FLOW

16 l/h

MAX PRESSURE

20 bar

POWER SUPPLY

90-240 VAC
24 VAC
12-24 VDC

VENTING

Manual
Self

DIGITAL

VMS MF | PO

VMS MF multifunction + weekly timer

VMS PO built-in pH-meter or ORP-meter (read & adjust). Menu-settable parameter

ANALOG

V CL | CO

VCL constant with level control

VCO constant

PUMP HEADS

Also available with configuration:

Manual venting **Self venting**

PVDF

PP

ACCESSORIES

Foot filter with level probe

Injection valve 1/2”

WDPHXX Series

Solenoid-driven dosing pumps with controller

WD

Wi Fi™

Modbus

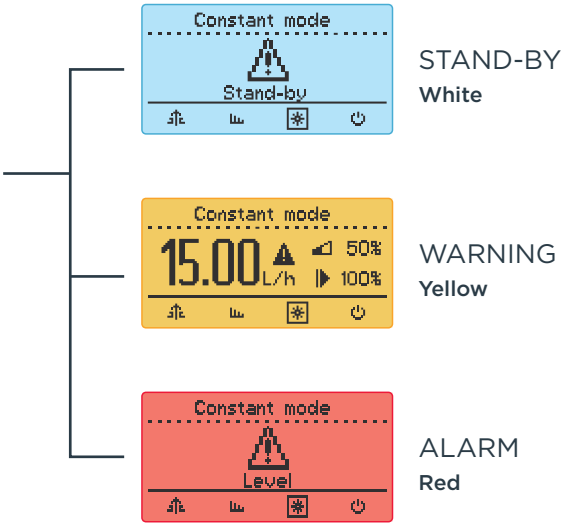
ERMES digital services

MAX FLOW
10 l/h

MAX PRESSURE
7 bar

POWER SUPPLY
230 VDC
115 VAC

VENTING
Manual
Self



STAND-BY
White

WARNING
Yellow

ALARM
Red

DIGITAL

WDPH RH | CL | CF | CA | OS

WDPHRH acid (pH) and disinfectant (ORP)

WDPHCL acid (pH) and chlorine

WDPHCF acid, flocculant (g/h) and 230VAC output for Cl

WDPHCA acid, algicide and 230VAC output for chlorine

WDPHOS acid (pH) and active oxygen

FEATURES

- Specific for swimming pools also in peristaltic version
- Control and regulating instrument with two built-in dosing pumps and standard PVDF accessories
- Wall mounting
- Easy programming with encoder and easy-nav navigation system
- Double pump head
- RS485 port for remote control (Wi-Fi, Ethernet, GSM, USB, Modbus)

PUMP HEADS

Also available with configuration:

Manual venting **Self venting**

PVDF **PP**

ACCESSORIES

Foot filter with level probe

Injection valve 1/2”

R Series

Compressed air dosing pumps

FEATURES

- Specifications for car washes
- Constant dosing
- 3 installation modes: horizontal, wall, DIN rail
- Multiple installation (side by side)
- Mechanical volume adjustment 0-100% of single injection

MAX FLOW

12 l/h

MAX PRESSURE

6 bar

POWER SUPPLY

Compressed Air

RAC

RACV

RACP

R AC | ACV | ACP

RAC Pneumatic pump

RACV Pneumatic pump with solenoid valve

RACP Pneumatic pump with priming button

PUMP HEADS

Pump Head

Diaphragm

INSTALLATION OPTIONS

DIN rail | Wall | Horizontal

ACCESSORIES

Foot filter | Injection valve 1/2”

PRIUS D MF Series | DIAPHRAGM

Multifunction electronic control motor-driven pumps

PRIUS MF

Modbus

MAX FLOW
1000 l/h

MAX PRESSURE
10* bar

POWER SUPPLY
230 VAC
115 VAC

VENTING
Manual
Self

DEFAULT GEAR BOX POSITION

ALTERNATIVE GEAR BOX POSITION

FEATURES

- High-strength PTFE diaphragm
- Large display with EASYNAV navigation system and encoder knob
- Pump housing can be rotated 90 degrees for optimal installation
- Standard PTFE pump head
- Integrated inverter
- Mechanical single injection volume adjustment (100-0%)
- Working modes: Constant - ppm - % - mlq - pause; timer; weekly; pulse; mA; Volt and Batch
- Level input
- Stand-by
- MODBUS (optional)
- IP65 motor (optional)
- 4/20 mA output (optional)
- Also available PRIUS D MF **HIGH PRESSURE** versions up to 100 bar*.

PUMP HEADS

PVDF | **PP** | **SS** AISI316L | **UMS***

* For capacities above 350 l, with integral pressure relief valves

PRIUS P MF Series | PISTON

Multifunction electronic control motor-driven pumps

PRIUS MF

Modbus

MAX FLOW
320 l/h

MAX PRESSURE
10 bar

POWER SUPPLY
230 VAC
115 VAC

VENTING
Manual
Self

DEFAULT GEAR BOX POSITION

ALTERNATIVE GEAR BOX POSITION

FEATURES

- Ceramic or Stainless Steel piston
- Large display with EASYNAV navigation system and Encoder knob
- Pump housing can be rotated 90 degrees for optimal installation
- Integrated inverter
- Mechanical single injection volume adjustment (100-0%)
- Working modes: Constant - ppm - % - mlq - pause; weekly; pulse; mA; Volt and Batch
- Level input
- Stand-by
- MODBUS (optional)
- IP65 motor (optional)
- 4/20 mA output (optional)

PUMP HEADS

PP **SS** AISI316L

PISTONS

CERAMIC SIALOX96 **SS** AISI420

PRIUS D Series | DIAPHRAGM

Motor-driven pumps

PRIUS

2G 2D 3G 3D

MAX FLOW

1000 l/h

MAX PRESSURE

10* bar

POWER SUPPLY

380 VAC
220 VAC
115 VAC

VENTING

Manual
Self

FEATURES

- High-strength PTFE diaphragm
- SINGLE-PHASE or THREE-PHASE power supply
- Mechanical single injection volume adjustment (100%-0%)
- 0.18, 0.37 or 0.55 kW motor
- Standard pump head in PVDF
- 50 and 60 Hz motors
- IP65 motor (optional)
- Also available PRIUS D **HIGH PRESSURE** versions up to 100 bar*.
- **ATEX 3G/3D** and **ATEX 2G/2D** versions also available for use in potentially explosive atmospheres

PUMP HEADS

PVDF **PP** **SS** AISI316L **UMS***

* For capacities above 350 l, with integral pressure relief valves

PRIUS P Series | PISTON

Motor-driven pumps

PRIUS

2G 2D 3G 3D

MAX FLOW
508 l/h

MAX PRESSURE
10 bar

POWER SUPPLY
380 VAC
220 VAC
115 VAC

VENTING
Manual
Self

FEATURES

- Ceramic or Stainless Steel piston
- Pump bodies in PP and Stainless Steel
- SINGLE-PHASE or THREE-PHASE power supply
- Mechanical adjustment of single injection volume (100%-0%)
- 0.18, 0.37 or 0.55 kW motor
- Standard pump head in PVDF
- 50 and 60 Hz motors
- IP65 motor (optional)
- **ATEX 3G/3D** and **ATEX 2G/2D** versions also available for use in potentially explosive atmospheres

PUMP HEADS

PP **SS** AISI316L

PISTONS

CERAMIC SIALOX96 **SS** AISI420

DOSING PUMPS ACCESSORIES

High efficiency products

CHEMICAL TANKS AND SAFETY BUNDS

UV-proof polyethylene containers for chemicals, complete with safety tanks, dosing pump and mixers. Capacity up to 1000 litresi.

STANDARD TANK

SAFETY BUNDS

ASSEMBLED TANK

Can be equipped with:

- 1 dosing pump (2 without mixer)
- 1 mixer
- 2 taps (filling and draining)1 outgassing valve
- 1 or 2 suction lances
- 2 level probes with filter (without mixer)
- 1 safety tank

MIXERS

MIXVN/8
MIXVN/4
MIXVN/2

High speed mixer 1400 RPM. AISI rod with PVC coatiAISI shaft-PVC coated, different lengths available (depending on the container).
“Marine” impeller.

MIXN/8
MIXN/4
MIXN/2

Slow speed mixer 1400 RPM. AISI rod with PVC coatiAISI shaft-PVC coated, different lengths available (depending on the container).
3-blade impeller.

MANUAL MIXERS

MIXN/MAN

Manual mixer.
PVC shaft, different lengths (depending on the container).

MIX WITH PISTON

Manual mixer.
PVC shaft, different lengths (depending on the container).

Note: *for full technical characteristics please refer to the corresponding product data sheet.*

LASP

Suction lances with level control, for tanks up to 1000 liters.

LINI

Injection lance for chemical dosing in hoses. Automatic cleaning system, available with and without tap.

MFKT

Multifunction valves for: pressure, safety, anti-siphon, bleed. Safety valve adjustment range: 1 to 18 bar. Pressure valve adjustment range: 1 to 5 bar. Delivery and connection fittings adaptable to different hose diameters. PVDF body and FKM B or EPDM o-rings.

SEFL

Flow sensors to control the actual dosing of the chemical. They allow automatic pump re-priming.

CWFA

Woltmann pulse-emitter water meter with dry dial for cold water.

CTFI

Pulse-emitter water meter for cold water.

CATFI - dry dial version

CWCA

Woltmann pulse-emitter water meter with dry dial for hot water.

CATCI

Pulse-emitter water meter for hot water.

CWFAT

Woltmann dry dial pulse-emitter water meter with Teflon-coated inside and outside.

CTFIT

Pulse-emitter water meter for cold water with Teflon-coated inside and outside.

Note: *for full technical characteristics please refer to the corresponding product data sheet.*

ERMES

Remote measurement and control

BASIC

- RS485 output to link other EMEC controllers

ETHERNET

- RS485 output to link other EMEC controllers
- LAN connection to web app ERMES
- Alarm messages via email

WIFI

- RS485 output to link other EMEC controllers
- WIFI connection to web app ERMES
- Alarm messages via email

4G

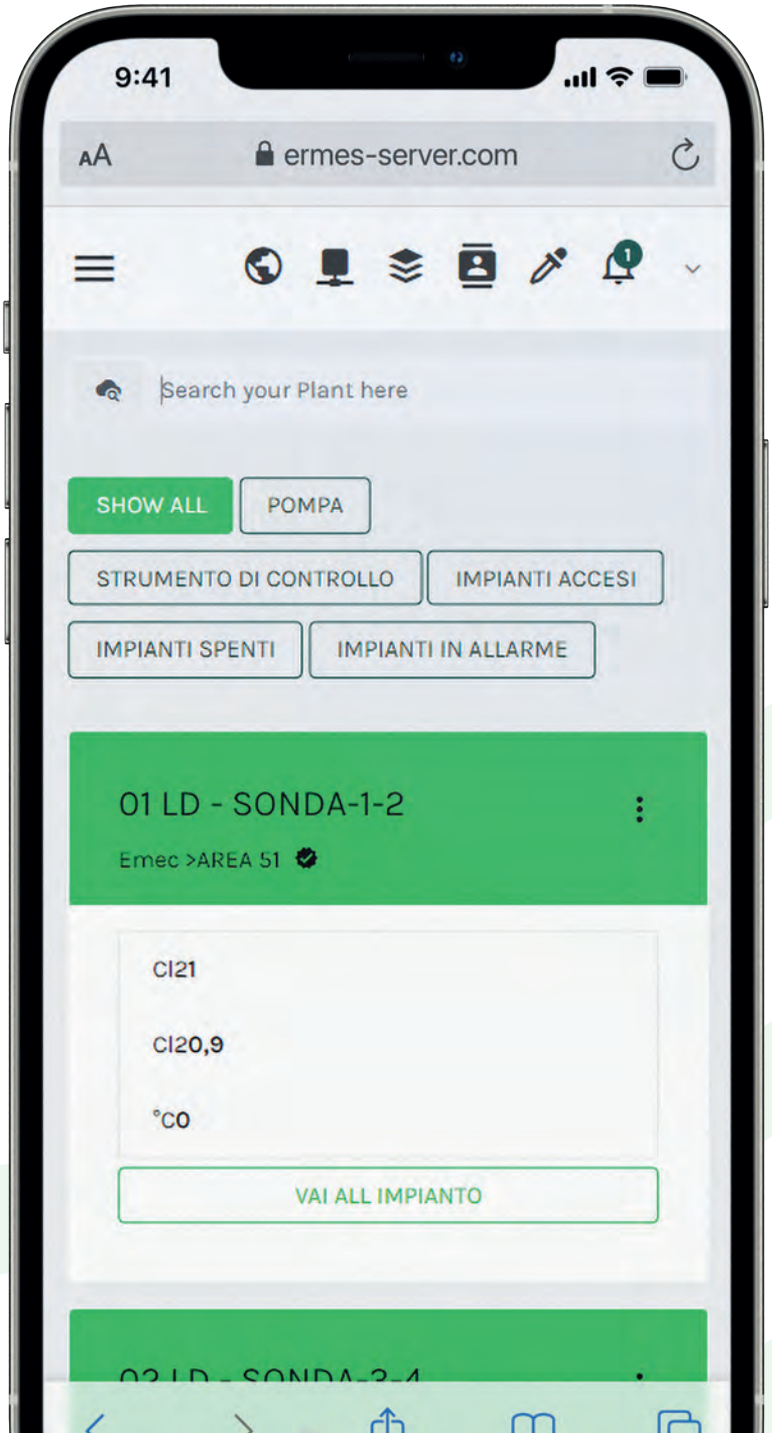
- RS485 output to link other EMEC controllers
- 3G connection to web app ERMES
- Alarm messages via email
- Alarm messages via SMS

USB

- RS485 output to link other EMEC controllers
- USB connection for downloading of log files to be viewed on web app ERMES

MODBUS

- Connection to other PLC controllers via RS485 or TCP/IP for reading and modifying parameters



Through ERMES online service you can remotely control and regulate all the parameters of all EMEC enabled products and interactively monitor probes, controller inputs, products level, temperature and setpoints.

HOW DOES IT WORK?

Enter ***www.ermes-server.com***, register for free, configure and name your systems. All EMEC controllers with encoder and ETHERNET or 3G/4G configuration will be immediately connected and available.
In addition to the remote control, through ERMES you can receive, via email, alarm messages with various report options on the status of your systems, including loss of communication.
If you have a controller with 3G/4G configuration you can also receive reports on your phone via SMS.
On request, the controllers can be supplied with a SIM card and mobile data subscription (only on controllers equipped with a 3G/4G module. Subscription paid by the customer).

ADVANTAGES

- Less plant intervention and inspections.
- Reports on the current status of the network's devices and connections (probes, outputs, alarms, setpoints)
- Instant alarm notifications via sms or email
- Data report of all plant systems
- Activity log like graphs and charts that can be downloaded on your PC (excel or pdf)

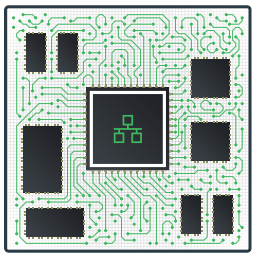
COMPATIBLE SYSTEMS

- PRISMA (p. 10-11)
- CENTURIO (p. 30-31)
- M-TOWER (p. 34-35)
- WD (p. 16-17)
- LD / LDS (p. 32-33)

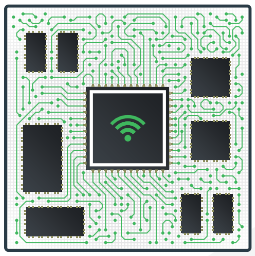
Modem and external communication modules

For LD, MTOWER, WD and CENTURIO controller series

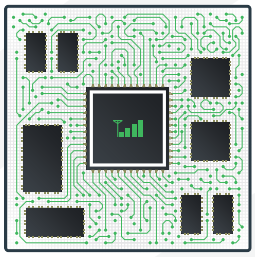
Internal PCB Module



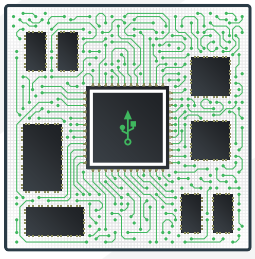
ETHERNET MODULE
for standard RJ45 network.



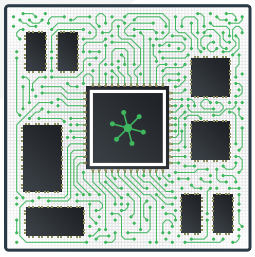
WIFI MODULE
for WIFI network.



4G MODULE
for mobile network.

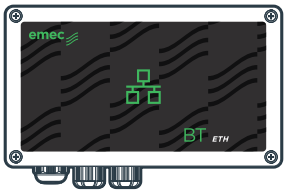


USB MODULE
for USB datalog recording.

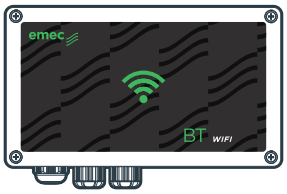


MODBUS MODULE
Serial communication
module for PLC connection.

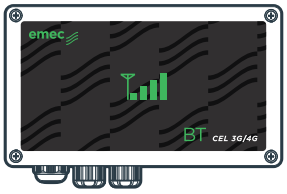
External IP65 Module



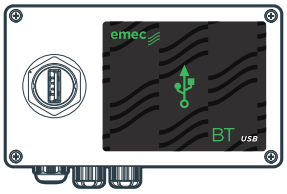
BT ETH
Ethernet controller for standard RJ45 network. IP65.



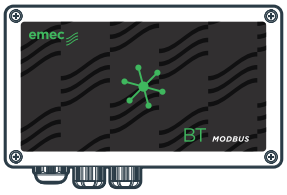
BT WIFI
Module for WIFI connection.
IP65.



BT CEL
Modem for mobile network.
IP65.



BT USB
USB module for USB datalog recording. IP65.

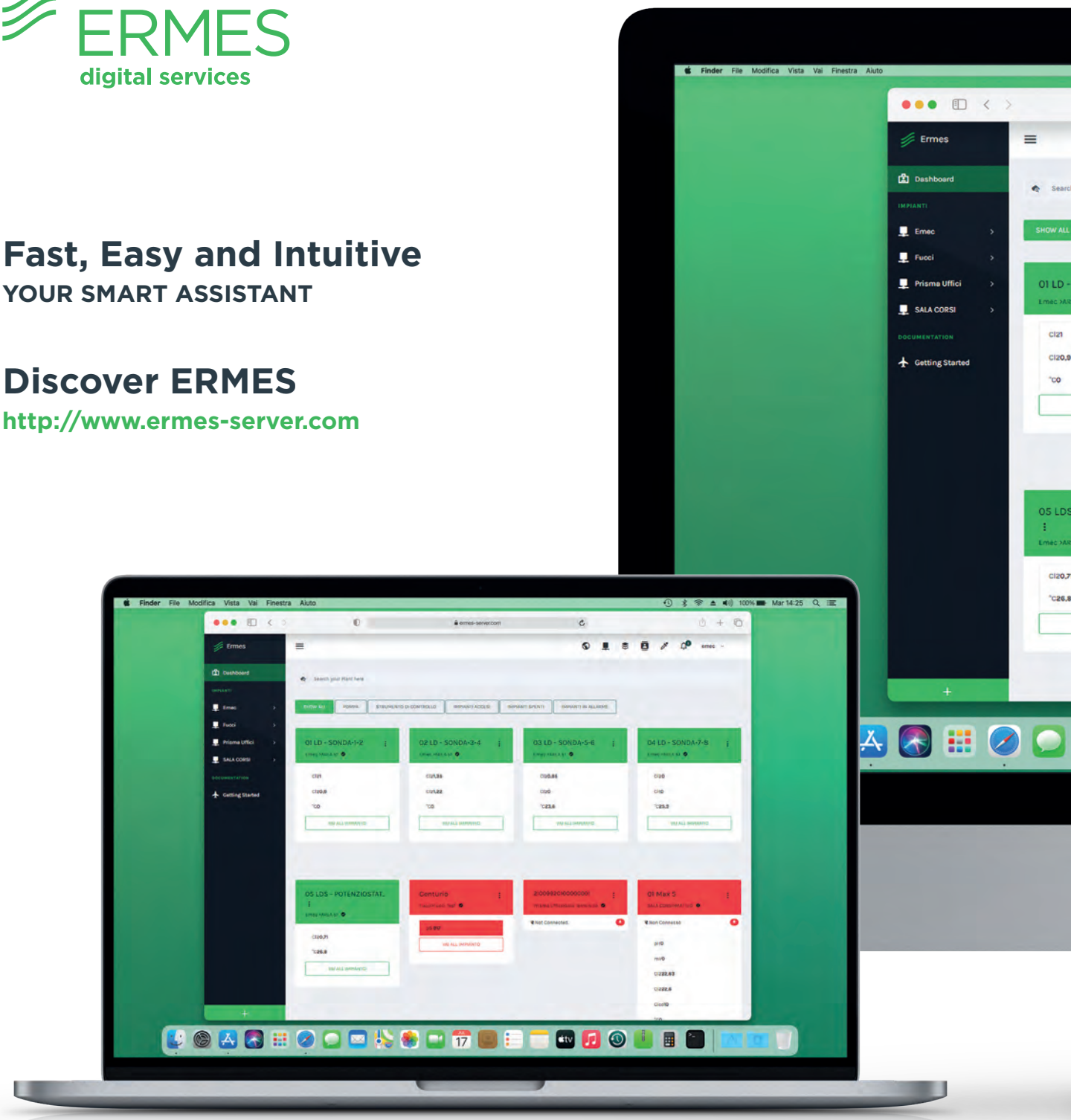


BT MODBUS
Serial communication
module for PLC connection.

ERMES
digital services

Fast, Easy and Intuitive
YOUR SMART ASSISTANT

Discover ERMES
http://www.ermes-server.com



MULTILANGUAGE WEB PLATFORM

ERMES interface is available in different languages: English, Italian, French and German.

MULTIPLE LEVELS ACCESS

Adding more users into your system and setting different access levels for every plant.

PUSH STATUS NOTIFICATIONS

Setting of push notifications about your plants status to be sent via SMS or email.

EVERYTHING UNDER CONTROL

Real-time display of all parameters of your plants and status check of all the functioning probes.

REAL-TIME OPERATIONS

Real-time managing and setting of all parameters of your plants.

REAL-TIME GRAPHS VISUALIZATION

Displaying all parameters of your plants as graphs, both from real-time data and from history of saved data.

CENTURIO Series | PRO - TOWER - POOL

Up to 10 channels water treatment controllers

CENTURIO **BASIC (USB, ETH, MODBUS) | GSM | WIFI**

Modbus

ERMES digital services

ONLINE REMOTE CONTROL

- ONLINE PARAMETER READING AND SETTING
- UPLOADING AND DOWNLOADING OF SETTINGS AND DATALOGS
- REMOTE SOFTWARE UPDATE

HARDWARE FEATURES

- Full color LCD touch display
- Large storage capacity for logs
- Configurable channels with add-on modules
- High-performance ARM A5 microprocessor

SOFTWARE FEATURES

- ERMES remote control
- Multi-language LINUX operating system
- Communication (standard) USB - ETHERNET - MODBUS
- Communication (optional) GSM - WIFI

INPUTS

- 8 product level inputs
- Flow input
- 2 water meter inputs
- 1 RS485 bus probe input
- 6 slots for channels reading
- Ingresso stand-by

OUTPUTS

- 8 proportional outputs
- 6 on/off outputs
- 2 “freecontact” on/off outputs
- 6 current outputs

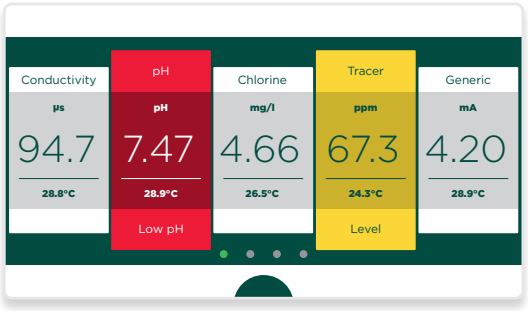
CENTURIO is the digital controller series designed by EMEC to give you the best work experience in the multiparameter control of dosing systems. High-performance hardware and software of CENTURIO makes possible a simultaneous and complete control over all the main measurement parameters, while you have access to a rich set of functions and connection options that really enhance and simplify your work.

CENTURIO is compatible with ERMES, EMEC's proprietary online remote control system.

The CENTURIO series includes: CENTURIO PRO, the most complete solution for every application; CENTURIO TOWER, a control system specifically designed for cooling water treatment; CENTURIO POOL, specifically designed for swimming pool water treatment.

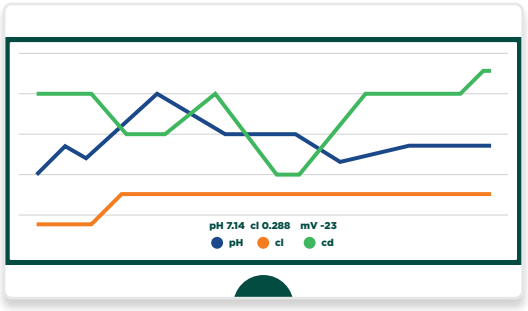
TOUCHSCREEN DISPLAY

LARGE 4" LCD FULL COLOR DISPLAY



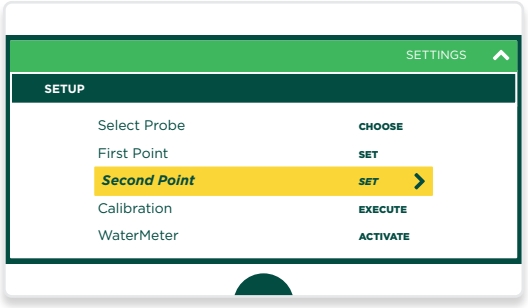
DASHBOARD

Quick data visualization on the dashboard



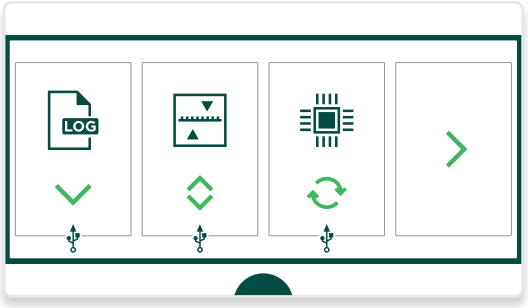
REAL-TIME STATS

Real-time graphs and graphs history



CHANNELS SETTINGS

Quick data visualization on the dashboard



LOG MANAGEMENT

Large storage and download options

Centurio does not suffer data loss when disconnected from the power supply

UP TO 10 CHANNELS (6 ANALOG)

CONDUCTIVITY | INDUCTIVE CONDUCTIVITY | pH | ORP | OPEN AMPEROMETRIC CELLS | TRACERS | mA INPUT | TURBIDITY | POTENTIOSTATIC (BROMINE/CHLORINE) | DISSOLVED OXYGEN | LASER LEVEL SENSOR | CORROSION

CLOSED AMPEROMETRIC CELLS

- CHLORINE DIOXIDE
- FREE CHLORINE
- TOTAL CHLORINE
- HYDROGEN PEROXIDE
- OZONE
- PERACETIC ACID
- BROMINE
- CHLORITES

LD Multichannel Series | LD MULTICHANNEL - LD MULTICHANNEL PLUS

Up to 2 channels plus temperature water treatment controllers

LD **BASIC | USB | ETH | GSM | WIFI | MODBUS**

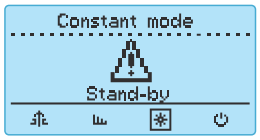
Modbus

ERMES digital services

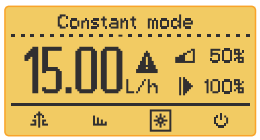
LD Multichannel is the digital multi-parameter controller designed by EMEC capable of regulating two independent parameters with PID adjustment. The LD Multichannel controller is perfect for a wide range of applications including: general water treatment, cooling tower control, industrial chemical dosing, purification, agricultural use, and swimming pool disinfection.

OPTIONAL

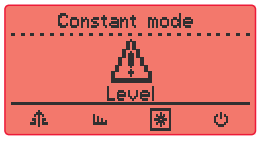
- mA output
- power supply 12 VDC or 24 VDC



STAND-BY
White



WARNING
Yellow



ALARM
Red

PARAMETERS

pH | ORP | BROMINE/CHLORINE | CONDUCTIVITY | INDUCTIVE CONDUCTIVITY | CHLORINE DIOXIDE | HYDROGEN PEROXIDE | OZONE | PERACETIC ACID | TURBIDITY | CHLORITES

HARDWARE FEATURES

- LCD RGB display

SOFTWARE FEATURES

- ERMES remote control
- Multi-language
- Communication (optional)
  ETHERNET - MODBUS - WIFI - GSM - USB

LD MULTICHANNEL PLUS FEATURES

- 5 relays (2 setpoints; alarm; probe cleaning; circulation relay)
- Probe cleaning
- PID
- Feed forward
- Proportional + meter reading
- “Line”

ALARMS

- General
- No flow
- Threshold exceeded
- Product level
- Maximum dosage
- Probe damaged

INPUTS

- Product level
- Flow
- Temperature probe
- Stand-by

OUTPUTS

- Alarm
- Probe cleaning with ETORB2
- Proportional
- Relay
- Flocculant pump (LDPHCL)
- mA

LDS Series | LDS - LDS PLUS

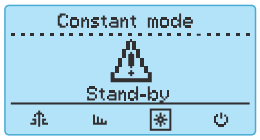
1 channel water treatment controllers with setpoints (LDS) or PID regulation (LDS PLUS)

LD BASIC | USB | ETH | GSM | WIFI | MODBUS

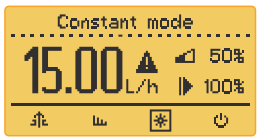
LDS is the single-read digital controller designed by EMEC and is perfect for a wide range of applications including: general water treatment, cooling tower control, industrial chemical dosing, purification, agricultural use, and swimming pool disinfection.

OPTIONAL

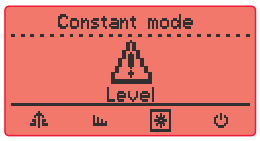
- USB for LOG logging
- Current output (0/4 - 20 mA)
- Ethernet
- 4G modem
- WIFI module
- MODBUS protocol



STAND-BY
White



WARNING
Yellow



ALARM
Red

PARAMETERS

pH | ORP | BROMINE/CHLORINE | CONDUCTIVITY | INDUCTIVE CONDUCTIVITY | CHLORINE DIOXIDE | HYDROGEN PEROXIDE | OZONE | PERACETIC ACID | TURBIDITY | DISSOLVED OXYGEN | CHLORITES

HARDWARE FEATURES

- LCD RGB display

SOFTWARE FEATURES

- ERMES remote control
- Multi-language
- Communication (optional)
  ETHERNET - MODBUS - WIFI - GSM - USB

LDS PLUS FEATURES

- 5 relays (2 setpoints; alarm; probe cleaning; circulation relay)
- Probe cleaning
- PID
- Feed forward

ALARMS

- General
- No flow
- Threshold exceeded
- Product level
- Maximum dosage
- Probe damaged

INPUTS

- Product level
- Flow
- Temperature probe
- Stand-by
- mA water meter (only LDS PLUS)

OUTPUTS

- Alarm
- Proportional
- Relay
- mA (optional for LDS)
- Set points (only LDS PLUS)
- Opto coupled (only LDS PLUS)

MTOWER Series | MTOWER - MTOWER PLUS

Up to 3 channels cooling towers controllers

TOWER **BASIC | USB | ETH | GSM | WIFI | MODBUS**

MTOWER PLUS manage simultaneously three parameters: pH or ORP, chlorine, conductivity or inductive conductivity (to specify on order) and temperature.

MTOWER 2CH manage simultaneously two parameters: pH or ORP or chlorine, conductivity or inductive conductivity (to specify on order) and temperature.

MTOWER 1CH manages one parameter: conductivity or inductive conductivity (to specify on order) and temperature.

They can be remotely controlled through the exclusive web management system ERMES.

OPTIONAL

- inductive conductivity probe
- USB for log logging
- Current output (0/4 - 20 mA)
- Ethernet
- 4G modem
- WIFI module
- MODBUS protocol

MTOWER PLUS 3 CH

MTOWER PLUS CD/PH/CL	Conductivity, pH and chlorine
MTOWER PLUS CD/PH/RH	Conductivity, pH and ORP

MTOWER 2 CH

MTOWER CD/PH	Conductivity, pH
MTOWER CD/RH	Conductivity, ORP
MTOWER CD/CL	Conductivity, chlorine

MTOWER 1 CH

MTOWER CD	Conductivity

PARAMETERS

pH | ORP | CHLORINE | CONDUCTIVITY OR INDUCTIVE CONDUCTIVITY | TEMPERATURE | TRACERS

MTOWER FEATURES

- Conductivity for “blowdown”
- 2 Timers for biocides
- Pre-bleed
- Lockout

ALARMS

- No water flow
- 3 product level
- Bleed timeout

INPUTS

- 6 product level
- 2 water meter
- Flusso
- Sonda temperatura
- Stand-by

OUTPUTS

- mA

RACK MOUNT Series | JA - J DIGITAL - DIN DIGITAL

1 channel plus temperature water treatment controllers

JA PRO RACK (96x96 mm)

JA PRO	Single reading
JA PRO PH	pH
JA PRO RH	ORP
JA PRO CL	Chlorine (Total - Free), Chlorine Dioxide, Hydrogen Peroxide, Ozone, Bromine, Paracetic Acid, Chlorites
JA PRO CD	Conductivity
JA PRO CD IND	Inductive Conductivity

ALARMS

- No water flow

INPUTS

- Flow
- Temperature probe
- Probe
- Stand-by

OUTPUTS

- 1 proportional
- 2 set points outputs / Free contact
- 1 alarm
- 1 current

J DIGITAL RACK (96x48 mm)

J DIGITAL	Single reading
J DIGITAL PH	pH
J DIGITAL RH	ORP
J DIGITAL CL	Chlorine (Total - Free), Chlorine Dioxide, Hydrogen Peroxide, Ozone, Bromine, Paracetic Acid, Chlorites
J DIGITAL CD	Conductivity
J DIGITAL O3	Ozone
J DIGITAL CLO2	Chlorine Dioxide
J DIGITAL TEMP	Temperature

DIN DIGITAL DIN RAIL (6 modules)

DIN DIGITAL	Single reading
DIN DIGITAL PH	pH
DIN DIGITAL RH	ORP
DIN DIGITAL CL	Chlorine (Total - Free), Chlorine Dioxide, Hydrogen Peroxide, Ozone, Bromine, Paracetic Acid, Chlorites
DIN DIGITAL CD	Conductivity
DIN DIGITAL O3	Ozone
DIN DIGITAL CLO2	Chlorine Dioxide
DIN DIGITAL TEMP	Temperature

J DIGITAL / DIN DIGITAL INPUTS

- Flow input
- Temperature probe input
- Probe input

J DIGITAL / DIN DIGITAL OUTPUTS

- Current output
- 2 set point / relay / free contact outputs

Measurement systems

Probes

SCL - Closed amperometric cells

Chlorine dioxide (hot/ cold water), Free chlorine (organic/inorganic), Total chlorine, Hydrogen peroxide, Ozone, Paracetic acid, Bromine, Chlorites for fresh water.

ECL - Open amperometric cells

Free chlorine (organic and inorganic) for fresh and salt water.

EPH - pH / ERH - ORP

Working temperature max 100° C (max 135° C for EPHSN6/GK pH probes).
Max working pressure 7 bar.

EOLUM - Dissolved oxygen

Max working temperature 50° C.
Max working pressure 10 bar.

ETORB2 - Turbidity

Working temperature max 40° C
Max working pressure 2 bar

ETRC2 - Tracers

Max. working temperature 50° C
Max working pressure 7 bar

EFL - Fluorine, Ion Selective

Working temperature max 70° C
Max working pressure 7 bar

ECDHL - Conductivity, platinum electrodes

Working temperature max 70° C
Max working pressure 7 bar

Notes: *see the relevant product data sheet for complete technical characteristics.*

ECDC - Conductivity, graphite electrodes

Working temperature max 60° C
Max working pressure 7 bar

ECDI - Conductivity, stainless steel electrodes

Working temperature max 60° C
Max working pressure 7 bar

EICD - Conductivity, stainless steel body

Working temperature max 130° C
Max working pressure 15 bar

ECDIND PT - Inductive conductivity

Reading scale up to 300 mS
Working temperature max 85° C
Working pressure max 8 bar

ECDSIND PT - Inductive conductivity

Readout scale 0-3 or 0-10 mS
Working temperature max 85° C
Working pressure max 8 bar

Notes: *see the relevant product data sheet for complete technical characteristics.*

Measurement systems

Probes accessories

NPED

Outflow electrode holder.
Working temperature
0°/50° C
Maximum pressure 5 bar

PEF

Electrode holder for pH, ORP and closed amperometric cell probes.

PEL

In-line electrode holder.
Max. working temperature
60° C
Working pressure max 7 bar

NFIL

Filters.
Working temperature max
60° C
Working pressure max 7 bar

PEC

Immersion electrode holder.
Options for Compressed air and probe cleaning system (automatic or manual control).

MANIFOLD

Conductivity electrode holder with flow sensor and optional motorized valve with two inection points.

Maximum pressure 8 bar
Maximum temperature
75° C

BUFFER SOLUTIONS

Buffer solutions of reference for probe calibrations.

Notes: *see the relevant product data sheet for complete technical characteristics.*

PRE-CONFIGURED SOLUTIONS, SKIDS, CABINS AND DOSING STATIONS

Our solutions

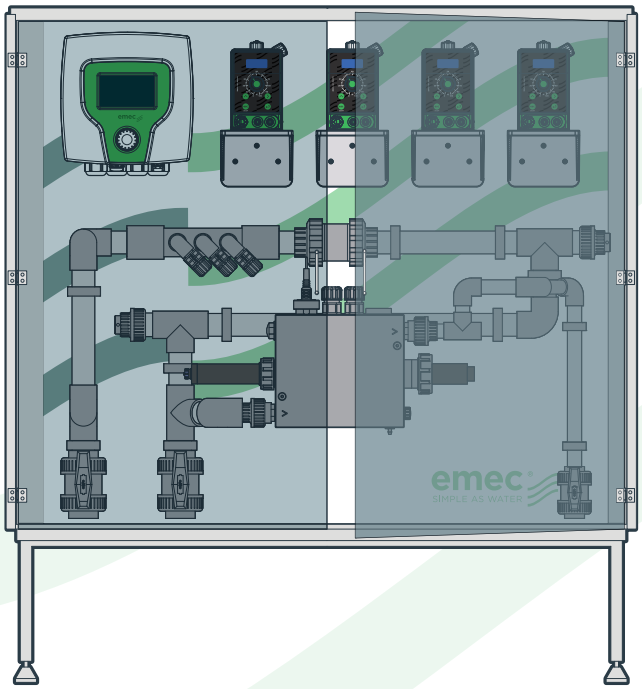
EMEC dosing pumps and measuring and control systems can be assembled with probes and accessories on panels according to specific combinations in order to offer turnkey all-in-one solutions for cooling tower systems.

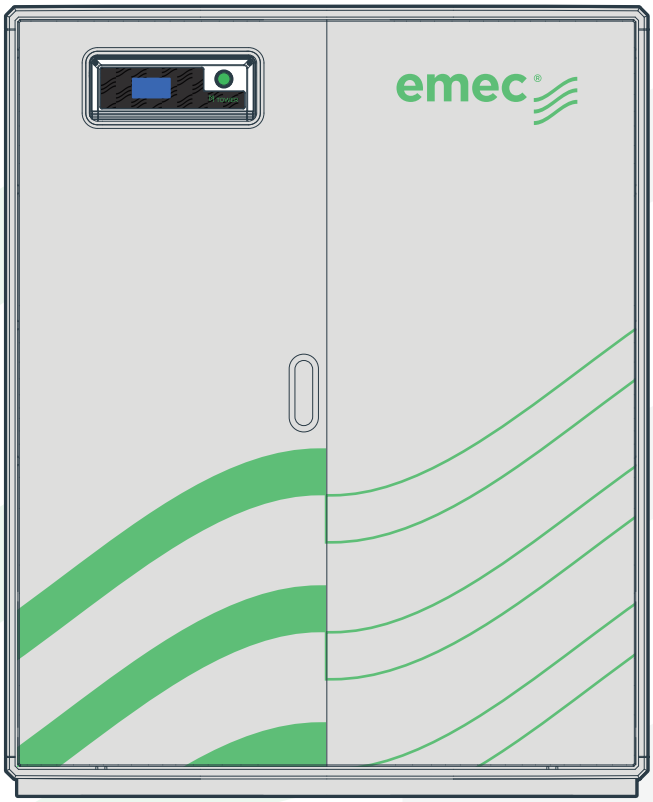
Pre-assembled solutions may have:

- **pumps, controllers or elements owned by the customer and assembled by EMEC**
- **customised logos**
- **backgrounds chosen by the customer**
- **customised sizes**
- **custom power panels**

SYSTEMS ON SKIDS OR IN CUSTOM-MADE CABINS

The Stainless Steel or plastic skid is designed and built on client requirements.
In addition to the solution on skids, it is possible to create dosing plants in a cabin, screen guard or with window.
Electric control panels designed to control all the assembeld solution.
The final product includes electrical and piping hook-ups ready for installation.





LOTUS

Chlorine dioxide disinfection systems

LOTUS BASIC | USB | ETH | GSM | WIFI | MODBUS

RELIABLE AND SAFE
The use of chlorine dioxide in the treatment of water has been driven by an increased awareness of biological related health issues. **EMEC LOTUS** chlorine dioxide generators can be used in a variety of industries for control of micro-organisms in water systems and are especially recommended for Legionella reduction, control and prevention in cold and hot water systems. ***Micro-organisms are killed in 5 minutes in a safety way.***

LOTUS chlorine dioxide based biological control systems are reliable and safe, being designed so there is no requirement to handle ClO_2 as a gas: two liquid chemicals, Hydrochloric Acid (HCl) and Sodium Chlorite ($NaClO_2$), react together to form the chlorine dioxide required, so there is no ClO_2 gas or concentrated solutions outside of the process application.

Thanks to EMEC online control system ERMES, you will also be able to monitor and interact with **LOTUS** systems from everywhere and through a simple but powerful web interface.

Overview table

Lotus configuration performances

MODELS	*MAX FLOW RATE ClO_2*	*MAX CHEMICAL CONSUMPTION**	*CONCENTRATION OF CHEMICALS*	*REACTOR*	*MAX PRESSURE (FEED WATER)*	*MAX WORKING PRESSURE****
AIR 10	10 **g/h**	0,25 **l/h**	9% **HCl**	**PVC**	2 **bar**	8 **bar**
AIR 30	30 **g/h**	0,75 **l/h**	7,5% **$NaClO_2$**		3 **bar**	5 **bar**
AIR 60	60 **g/h**	1,5 **l/h**			3 **bar**	5 **bar**
MINI 8	8 **g/h**	0,2 **l/h**	9% **HCl**	**PVC**	5 **bar**	8 **bar**
MINI 20	20 **g/h**	0,5 **l/h**	7,5% **$NaClO_2$**		5 **bar**	8 **bar**
MAXI 80	80 **g/h**	2 **l/h**	9% **HCl** 7,5% **$NaClO_2$**	**PVC**	**	8 **bar**
MAXI 160	160 **g/h**	4 **l/h**				8 **bar**
MAXI 240	240 **g/h**	6 **l/h**				8 **bar**
MAXI 400	400 **g/h**	10 **l/h**				8 **bar**
MAXI 600	600 **g/h**	15 **l/h**				8 **bar**
MAXI 800	800 **g/h**	20 **l/h**				5 **bar**
MAXI 1000	1000 **g/h**	25 **l/h**				3 **bar**
ULTRA 1000	1000 **g/h**	6,1 **l/h**	33% **HCl** 25% **$NaClO_2$**	**PVDF**	**	5 **bar**
ULTRA 2000	2000 **g/h**	12,2 **l/h**				5 **bar**
ULTRA 3000	3000 **g/h**	18,3 **l/h**				3 **bar**
ULTRA 4000	4000 **g/h**	24,4 **l/h**				2 **bar**
EASY 8	8 **g/h**	0,2 **l/h**	9% **HCl** 7,5% **$NaClO_2$**	**PVC**	**	8 **bar**
EASY 20	20 **g/h**	0,5 **l/h**				8 **bar**
EASY 40	40 **g/h**	1 **l/h**				8 **bar**
EASY 80	80 **g/h**	2 **l/h**				8 **bar**

* *Max chemicals comsumption value is referred to a single reagent, multiply by two to obtain the total consumption of liters/hour*

** *Depends on system pressure (max 8 bar)*

*** *For higher pressures use an external pump*

Lotus Air

Pressure-less chlorine dioxide generator from 10 to 60 g/h

LOTUS AIR **BASIC | USB | ETH | GSM | WIFI | MODBUS**

LOTUS AIR is a pressure-less chlorine dioxide generator useful for those applications in which several injection points are required. Chlorine Dioxide is produced from diluted base chemicals: acid-chlorite process by Hydrochloric Acid (HCl 9%) and Sodium Chlorite ($NaClO_2$ 7,5%).

Chlorine dioxide produced by **LOTUS AIR** is stocked into a tank and then dosed in the pipeline.

Its elegant cover preserves the cleanliness of the inner components and their integrity.

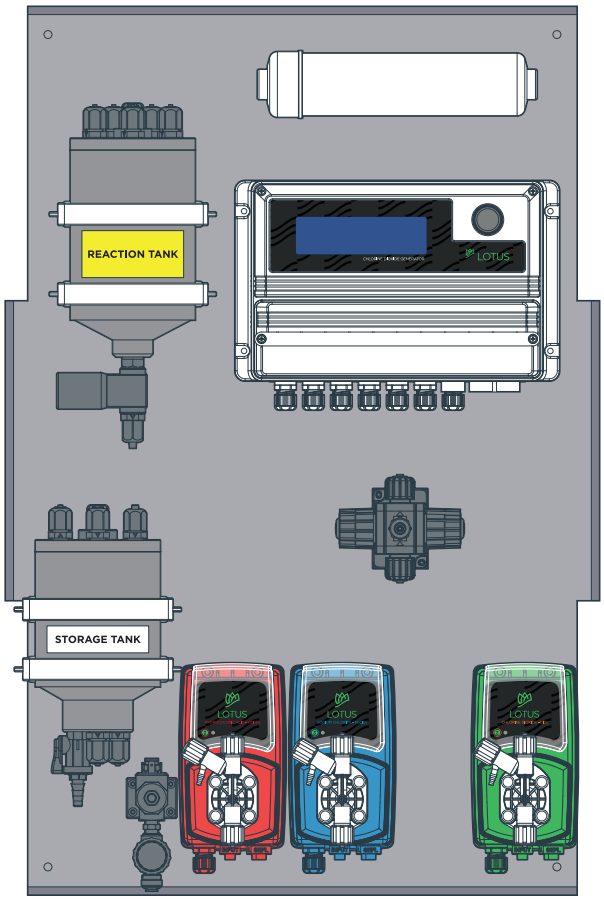
ADVANTAGES

- Reaction at ambient pressure
- Multi-point injection
- No emission
- Diluted chemicals

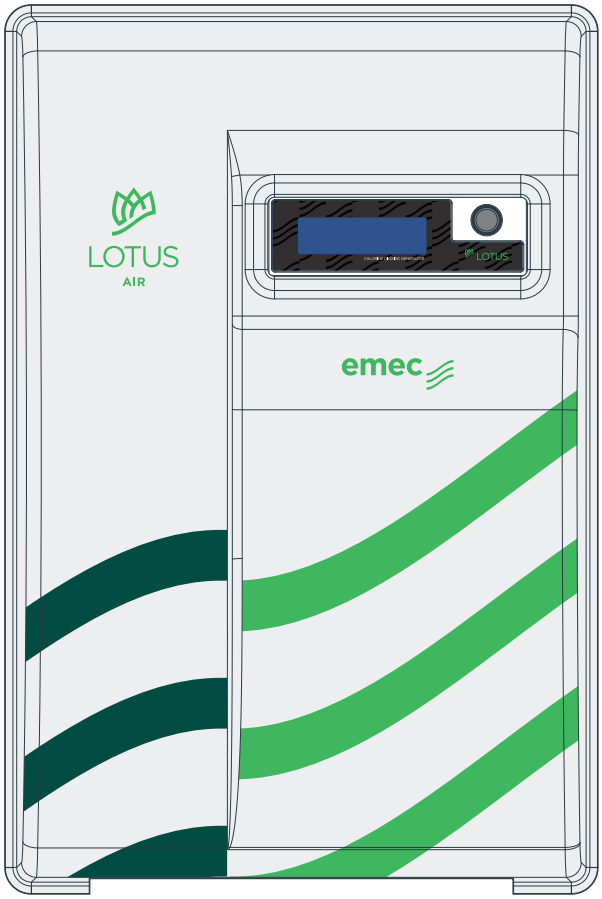
OPTIONAL

Also available equipped with a ClO_2 probe (SVCL2 or SVCL17) or a ORP probe (ERH), a probe holder and a filter.

PANEL



COVER



ALARMS

- product alarm
- product filling times alarm
- reactor levels alarm
- chlorine dioxide sensor alarm
- sepr alarm
- reading thresholds alarm

INPUTS

- water meter input
- stand-by input
- levels inputs
- 0-4/20 mA input
- probes inputs

OUTPUTS

- 0-4/20 mA output
- alarm output
- RS485 output

MODELS

- AIR 10 / AIR 30 / AIR 60

GAS SENSOR

- LOTUS AIR with gas sensor detection (optional).

ONLINE STATS

CUSTOMIZABLE

APP

REMOTE CONTROL

FUNCTIONS

- BATCH chlorine dioxide production
- ClO_2 dosing in several mode
- Alarms: products, water, emptying
- Water meter input
- Stand-by input
- Real time production data
- Pumps and SEFL flow sensors monitoring
- Service due date
- ERMES communication
- Flow control input (flow alarm)
- Tank level controls (level alarm)
- USB data log (optional)
- Ethernet module (optional)
- GSM internal modem (optional)
- MODBUS module (optional)
- WIFI module (optional)
- ClO_2 concentration in water measurement and control
- mA output

FEATURES

- ClO_2 concentration: 2 g/l
- HCl (red), $NaClO_2$ (blue) and ClO_2 (green) metering pumps
- MFKT/V multifunction valve as pressure,
- safety, anti-syphon and bleed
- Double chamber: reaction and storage
- Activated carbon filter
- ASA or fiber glass enclosure
- IP65 protection (NEMA4x) of LOTUS controller and pumps
- Wheel control for easy programming
- Working temperature: 0-45°C (32-110°F)

Overview table

Lotus Air configuration performances

MODELS	*MAX FLOW RATE ClO_2*	*MAX CHEMICAL CONSUMPTION**	*CONCENTRATION OF CHEMICALS*	*REACTOR*	*MAX PRESSURE (FEED WATER)*	*MAX WORKING PRESSURE****
AIR 10	10 **g/h**	0,25 **l/h**	9% **HCl** 7,5% **$NaClO_2$**	**PVC**	2 **bar**	8 **bar**
AIR 30	30 **g/h**	0,75 **l/h**			3 **bar**	5 **bar**
AIR 60	60 **g/h**	1,5 **l/h**			3 **bar**	5 **bar**

* *Max chemicals comsumption value is referred to a single reagent, multiply by two to obtain the total consumption of liters/hour*

** *Depends on system pressure (max 8 bar)*

*** *For higher pressures use an external pump*

Lotus Mini

Chlorine dioxide generator from 8 to 20 g/h

LOTUS MINI **BASIC | USB | ETH | GSM | WIFI | MODBUS**

LOTUS MINI is an all-round solution for all your need for water disinfection. It is safe and solid. Chlorine Dioxide is produced from diluted base chemicals: acid-chlorite process by Hydrochloric Acid (HCl 9%) and Sodium Chlorite ($NaClO_2$ 7,5%).

Its elegant cover preserves the cleanliness of the inner components and their integrity. Chlorine dioxide produced by **LOTUS MINI** can be proportional to the circulating water flow or based on a measured setpoint.

There is no storage of chlorine dioxide therefore there is no chlorine dioxide gas or concentrated solutions outside of the process application.

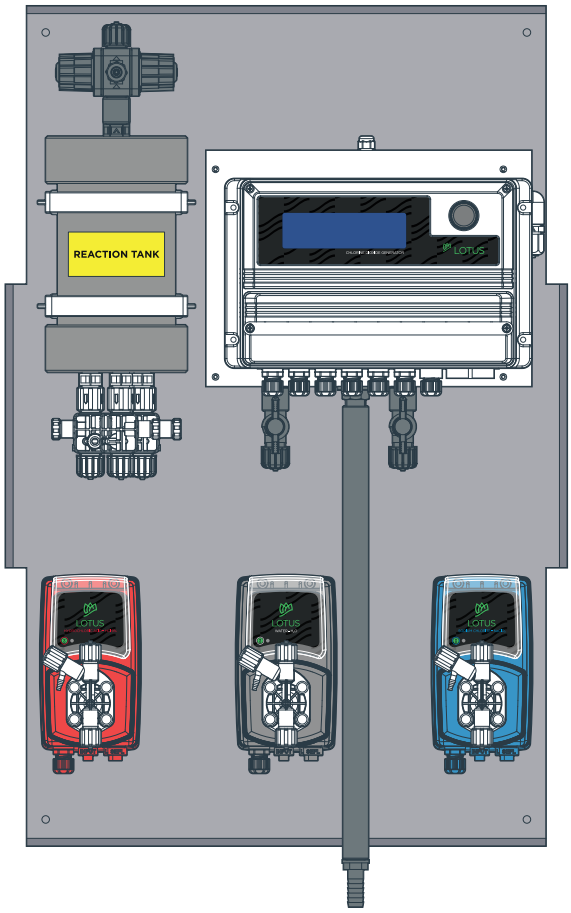
ADVANTAGES

- Reaction at controlled pressure
- High degree of stability of the chlorine dioxide solution
- No ClO_2 loss due to closed reaction chamber
- Diluted chemicals

OPTIONAL

Also available equipped with a ClO_2 probe (SVCL2 or SVCL17) or a ORP probe (ERH), a probe holder and a filter.

PANEL



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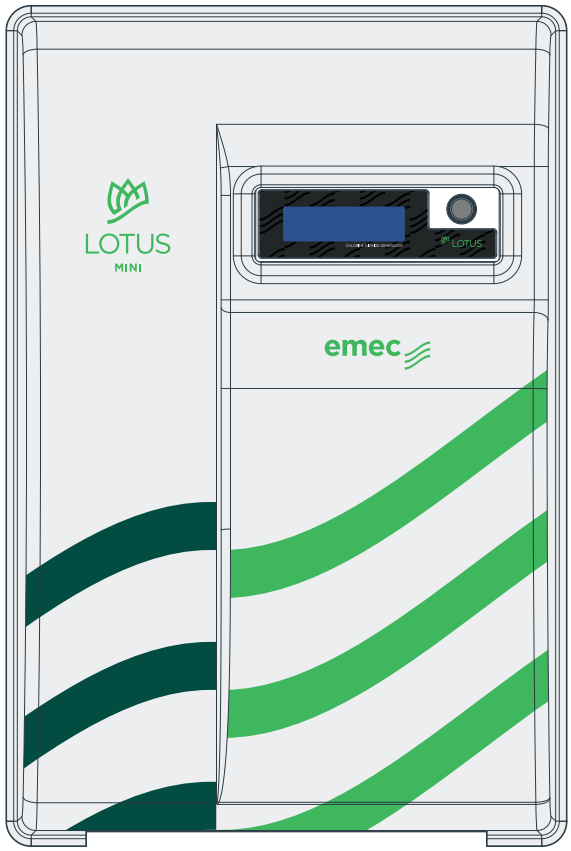


ALARMS

- sepr alarm
- chlorine dioxide sensor alarm
- reactor leakage alarm

INPUTS

- sefl input
- stand-by input
- levels inputs
- temperature input
- probes inputs

OUTPUTS

- pumps output
- RS485 output
- 0-4/20 mA output
- alarm output

MODELS

- MINI 8 / MINI 20

GAS SENSOR

- LOTUS MINI with gas sensor detection (optional).

ONLINE STATS

CUSTOMIZABLE

APP

REMOTE CONTROL

FUNCTIONS

- Instantaneous ClO_2 production
- ClO_2 dosing in several mode
- Flow control input (flow alarm)
- Tank level controls (level alarms)
- Water meter input
- Stand-by input
- Real time production data
- Pumps and SEFL flow sensors monitoring
- Permanent data storage with system data log (on Logbook menu)
- ERMES communication
- USB data log (optional)
- Ethernet module (optional)
- GSM internal modem (optional)
- MODBUS module (optional)
- WIFI module (optional)
- Service due date
- mA output

FEATURES

- ClO_2 concentration: 2 g/l
- Flow control input (flow alarms)
- Tank level control (level alarms)
- HCl (red), $NaClO_2$ (blue) and dilution water (grey) metering pumps
- 3 SEFL pump dosing check
- Activated carbon filter
- MFKT/V multifunction valve as pressure,
- safety, anti-syphon and bleed valve
- PVC reaction chamber
- ASA or fiber glass enclosure
- IP65 protection (NEMA4x) of LOTUS controller and pumps
- Wheel control for easy programming
- Working temperature: 0-45°C (32-110°F)

Overview table

Lotus Mini configuration performances

MODELS	*MAX FLOW RATE ClO_2*	*MAX CHEMICAL CONSUMPTION**	*CONCENTRATION OF CHEMICALS*	*REACTOR*	*MAX PRESSURE (FEED WATER)*	*MAX WORKING PRESSURE****
MINI 8	8 **g/h**	0,2 **l/h**	9% **HCl**	**PVC**	5 **bar**	8 **bar**
MINI 20	20 **g/h**	0,5 **l/h**	7,5% **$NaClO_2$**		5 **bar**	8 **bar**

* *Max chemicals comsumption value is referred to a single reagent, multiply by two to obtain the total consumption of liters/hour*

** *Depends on system pressure (max 8 bar)*

*** *For higher pressures use an external pump*

Lotus Maxi

Chlorine dioxide generator from 80 to 1000 g/h

LOTUS MAXI **BASIC | USB | ETH | GSM | WIFI | MODBUS**

LOTUS MAXI is one of the largest product among EMEC Chlorine Dioxide generators and is used in all those cases in which there is need of a big production, such as large water treatment plants. Chlorine Dioxide is produced from diluted base chemicals: acid-chlorite process by Hydrochloric Acid (HCl 9%) and Sodium Chlorite ($NaClO_2$ 7,5%).

Chlorine dioxide produced by **LOTUS MAXI** is set to be proportional to the circulating water flow or based on a setpoint, it is then dosed into the water flow.

It can also be controlled remotely via the web application ERMES through a 2G/3G modem or a lan adapter, while Modbus is available as option.

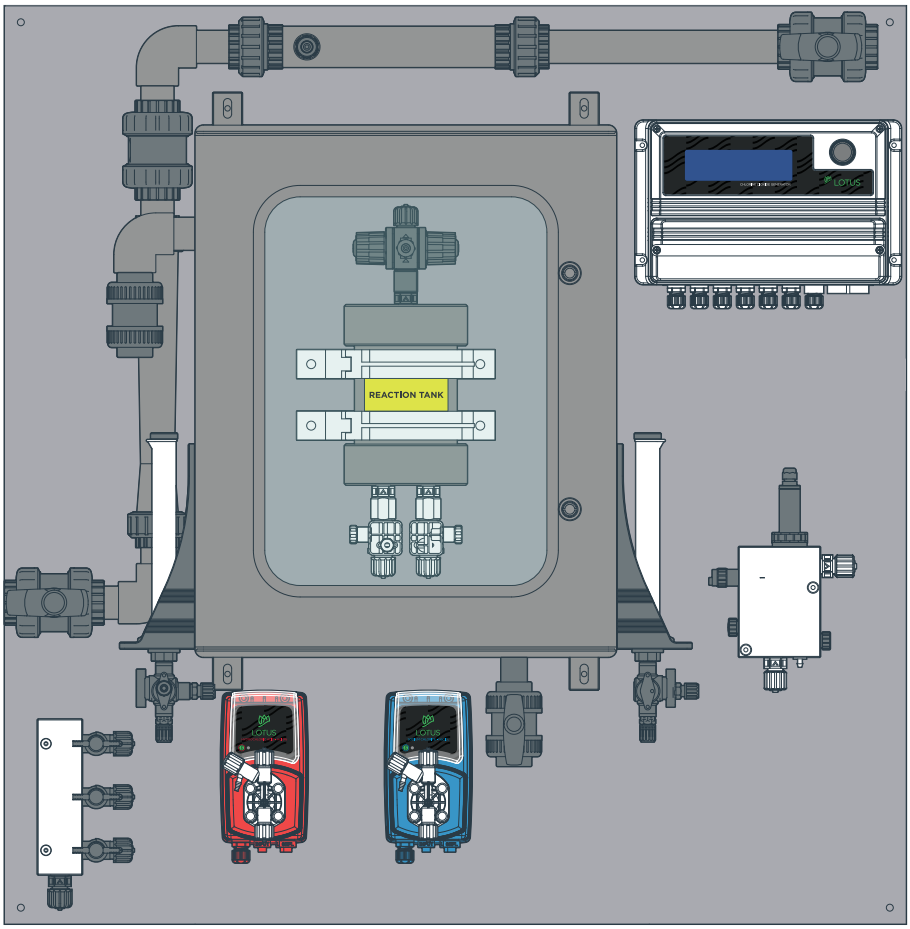
ADVANTAGES

- Reaction at controlled pressure
- High degree of stability of the chlorine dioxide solution
- No ClO_2 loss due to closed reaction chamber
- Diluted chemicals

OPTIONAL

Also available equipped with a ClO_2 probe (SVCL2 or SVCL17) or a ORP probe (ERH), a probe holder and a filter.

PANEL



ALARMS

- sepr alarm
- chlorine dioxide sensor alarm
- reactor leakage alarm

INPUTS

- sefl input
- stand-by input
- levels inputs
- temperature input
- probes inputs

OUTPUTS

- pumps output
- RS485 output
- 0-4/20 mA output
- alarm output

MODELS

- MAXI 80 / MAXI 160 / MAXI 240 / MAXI 400 / MAXI 600 / MAXI 800 / MAXI 1600

GAS SENSOR

- LOTUS MAXI with gas sensor detection (optional).

ONLINE STATS

CUSTOMIZABLE

APP

REMOTE CONTROL

FUNCTIONS

- Instantaneous ClO_2 production
- ClO_2 dosing in several mode
- Flow control input (flow alarm)
- Tank level controls (level alarms)
- Water meter input
- Stand-by input
- Real time production data
- Pumps and SEFL flow sensors monitoring
- Permanent data storage with system data log (on Logbook menu)
- ERMES communication
- USB data log (optional)
- Ethernet module (optional)
- GSM internal modem (optional)
- MODBUS module (optional)
- WIFI module (optional)
- Service due date
- mA output

FEATURES

- ClO2 concentration: 2 g/l
- Flow control input (flow alarms)
- Tank level control (level alarms)
- HCl (red) and $NaClO_2$ (blue) metering pumps
- 3 SEFL pump dosing check
- Activated carbon filter
- MFKT/V multifunction valve as pressure, safety, anti-syphon and bleed valve
- PVC reaction chamber
- ASA or fiber glass enclosure
- IP65 protection (NEMA4x) of LOTUS controller and pumps
- Wheel control for easy programming
- Working temperature: 0-45°C (32-110°F)

Overview table

Lotus Maxi configuration performances

MODELS	*MAX FLOW RATE ClO_2*	*MAX CHEMICAL CONSUMPTION**	*CONCENTRATION OF CHEMICALS*	*REACTOR*	*MAX PRESSURE (FEED WATER)*	*MAX WORKING PRESSURE****
MAXI 80	80 **g/h**	2 **l/h**	9% **HCl** 7,5% **$NaClO_2$**	**PVC**	**	8 **bar**
MAXI 160	160 **g/h**	4 **l/h**				8 **bar**
MAXI 240	240 **g/h**	6 **l/h**				8 **bar**
MAXI 400	400 **g/h**	10 **l/h**				8 **bar**
MAXI 600	600 **g/h**	15 **l/h**				8 **bar**
MAXI 800	800 **g/h**	20 **l/h**				5 **bar**
MAXI 1000	1000 **g/h**	25 **l/h**				3 **bar**

* *Max chemicals comsumption value is referred to a single reagent, multiply by two to obtain the total consumption of liters/hour*

** *Depends on system pressure (max 8 bar)*

*** *For higher pressures use an external pump*

Lotus Ultra

Chlorine dioxide generator from 1000 to 4000 g/h

LOTUS ULTRA **BASIC | USB | ETH | GSM | WIFI | MODBUS**

LOTUS ULTRA is the largest product among EMEC Chlorine Dioxide generators and is used in all those cases in which there is need of a big production, such as large water treatment plants.

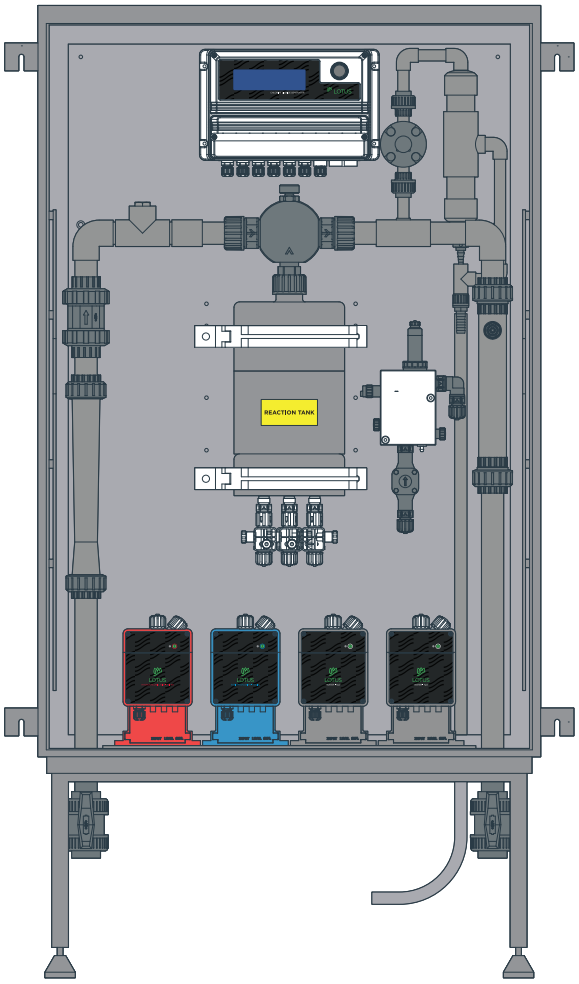
Chlorine Dioxide is produced from concentrated base chemicals: acidchlorite process by Hydrochloric Acid (HCl 33%) and Sodium Chlorite ($NaClO_2$ 25%).

Chlorine dioxide produced by **LOTUS ULTRA** is set to be proportional to the circulating water flow or based on a setpoint, it is then dosed into the water flow.

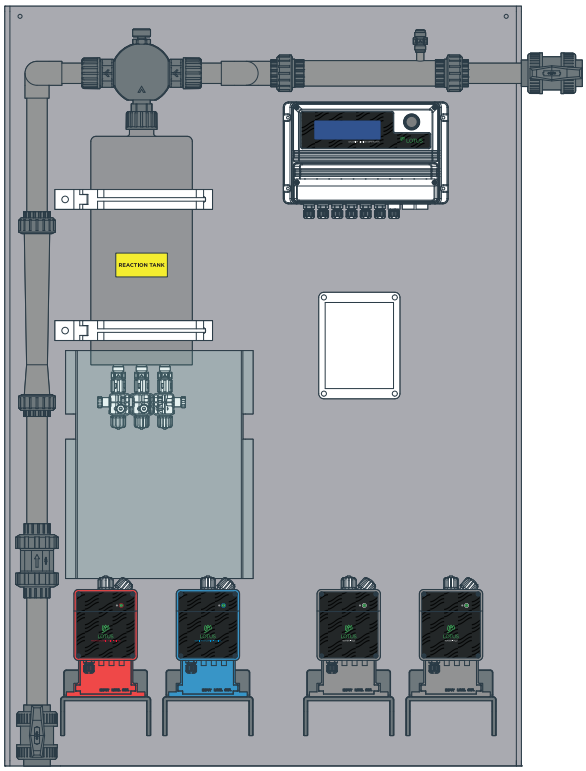
ADVANTAGES

- Reaction at controlled pressure
- High degree of stability of the chlorine dioxide solution
- No ClO_2 loss due to closed reaction chamber
- Diluted chemicals

SKID



PANEL



ALARMS

- sepr alarm
- chlorine dioxide sensor alarm
- reactor leakage alarm

INPUTS

- sefl input
- stand-by input
- levels inputs
- temperature input
- probes inputs

OUTPUTS

- pumps output
- RS485 output
- 0-4/20 mA output
- alarm output

MODELS

- ULTRA 1000 / ULTRA 2000 / ULTRA 3000 / ULTRA 4000

GAS SENSOR

- LOTUS ULTRA with gas sensor detection (optional).

ONLINE STATS

CUSTOMIZABLE

APP

REMOTE CONTROL

FUNCTIONS

- Instantaneous ClO_2 production
- ClO2 dosing in proportional mode
- Flow control input (flow alarm)
- Tank level controls (level alarms)
- Water meter input
- Stand-by input
- Real time production data
- Pumps and SEFL flow sensors monitoring
- Permanent data storage with system data log (on Logbook menu)

FEATURES

- Service due date
- LOTUS controller
- HCl (red) and NaClO2 (blue) metering pumps
- 2 pumps for dilution water (grey)
- 4 SEFL flow sensors as security
- MFKT/V multifunction valve as pressure,
- safety, anti-syphon and bleed valve
- PVDF reaction chamber
- IP65 protection (NEMA4x) of LOTUS controller
- ENCODER wheel control
- Working temperature: 0-45°C (32-110°F)
- mA output
- ClO2 probe reading
- Temperature probe reading (probe and accessories not included)

Overview table

Lotus Ultra configuration performances

MODELS	*MAX FLOW RATE ClO_2*	*MAX CHEMICAL CONSUMPTION**	*CONCENTRATION OF CHEMICALS*	*REACTOR*	*MAX PRESSURE (FEED WATER)*	*MAX WORKING PRESSURE****
ULTRA 1000	1000 **g/h**	6,1 **l/h**	33% **HCl** 25% **$NaClO_2$**	**PVDF**	**	5 **bar**
ULTRA 2000	2000 **g/h**	12,2 **l/h**				5 **bar**
ULTRA 3000	3000 **g/h**	18,3 **l/h**				3 **bar**
ULTRA 4000	4000 **g/h**	24,4 **l/h**				2 **bar**

* *Max chemicals comsumption value is referred to a single reagent, multiply by two to obtain the total consumption of liters/hour*

** *Depends on system pressure (max 8 bar)*

*** *For higher pressures use an external pump*

Lotus Easy

Chlorine dioxide generator from 8 to 80 g/h

LOTUS EASY **BASIC | USB | ETH | GSM | WIFI | MODBUS**

LOTUS EASY is the best solution if you want a simple but professional way to produce chlorine dioxide, thanks to an integrated All-in-One Controller eqipped with two metering pumps. Chlorine Dioxide is produced from concentrated base chemicals: acidchlorite process by Hydrochloric Acid (HCl 9%) and Sodium Chlorite ($NaClO_2$ 7,5%).

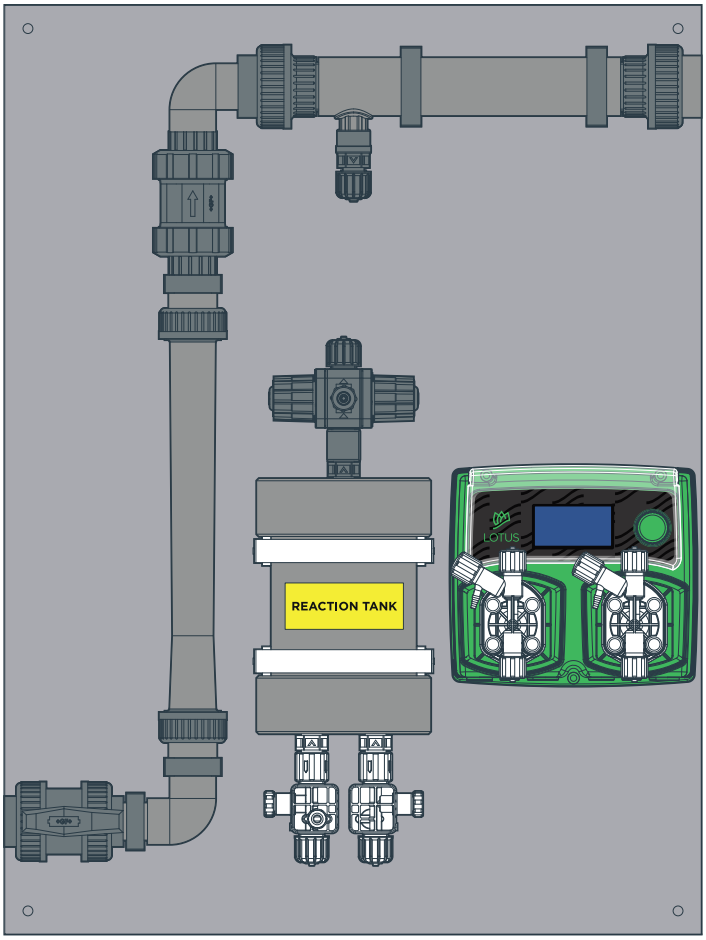
There is no storage of chlorine dioxide therefore there is no chlorine dioxide gas or concentrated solutions outside of the process application.

LOTUS EASY is designed so that the reaction to produce chlorine dioxide takes place in a reaction chamber. Multi function valves on injection points ensure security of the reaction chamber.

ADVANTAGES

- Reaction at controlled pressure
- High degree of stability of the chlorine dioxide solution
- No ClO_2 loss due to closed reaction chamber
- Diluted chemicals

PANEL



ALARMS

- sefl alarm
- bypass alarm
- acid/chlorine level alarm
- acid/chlorine sefl alarm

INPUTS

- mA input
- stand-by input
- acid/chlorine level input
- bypass input
- acid/chlorine sefl input
- water meter input

OUTPUTS

- alarm output

MODELS

- EASY 8 / EASY 20 / EASY 40 / EASY 80

ONLINE STATS · CUSTOMIZABLE · APP · REMOTE CONTROL

FUNCTIONS

- Instantaneous ClO_2 production
- ClO2 dosing in proportional mode
- Level alarms
- Water meter input
- Stand-by input
- Real time production data
- Pumps and SEFL flow sensors monitoring
- Service due date
- By-pass flow detection
- mA (0-20mA) input

FEATURES

- ClO_2 concentration: 2 g/l
- Level alarms
- 2 flow sensors
- MFKT/V multifunction valve as pressure,
- safety, anti-syphon and bleed
- Static mixer
- PVC reaction chamber
- Working temperature: 0-45°C (32-113°F)
- 600 x 800 mm panel mounting
- By-pass diametre: DN 40

Overview table

Lotus Ultra configuration performances

MODELS	*MAX FLOW RATE ClO_2*	*MAX CHEMICAL CONSUMPTION**	*CONCENTRATION OF CHEMICALS*	*REACTOR*	*MAX PRESSURE (FEED WATER)*	*MAX WORKING PRESSURE****
EASY 8	8 **g/h**	0,2 **l/h**				8 **bar**
EASY 20	20 **g/h**	0,5 **l/h**	9% **HCl**	**PVC**	**	8 **bar**
EASY 40	40 **g/h**	1 **l/h**	7,5% **$NaClO_2$**			8 **bar**
EASY 80	80 **g/h**	2 **l/h**				8 **bar**

* *Max chemicals comsumption value is referred to a single reagent, multiply by two to obtain the total consumption of liters/hour*

** *Depends on system pressure (max 8 bar)*

*** *For higher pressures use an external pump*

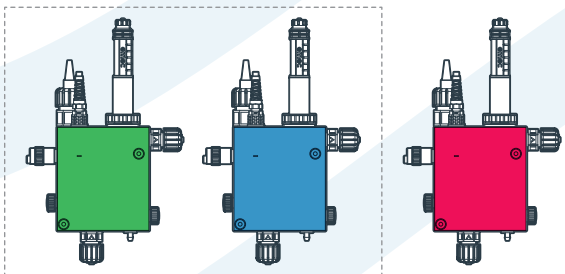
POOLBRAVO

The swimming pool made smart

POOLBRAVO **BASIC | USB | ETH | GSM | WIFI | MODBUS**

POOLBRAVO is a turnkey product available in a variety of configurations to manage the main measurement parameters involved in pool water treatment immediately and easily, optimizing accordingly the dosing and consumption of the chemicals needed to meet the chemical and physical requirements of the water. Chemical parameters that can be measured and adjusted include pH, chlorine, hydrogen peroxide, ozone and bromine.

COVER



A **multi-color LED**, installed on the PEF probe holder and visible, through an aperture, signals system operating states or any alarms with different colored lights.

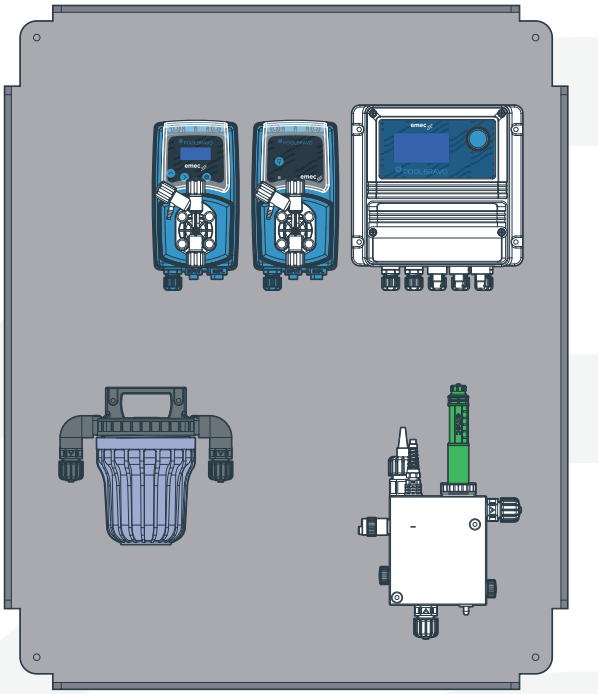
GREEN *or* ***BLUE*** *(depends on version): indicates correct tuning of the device.*

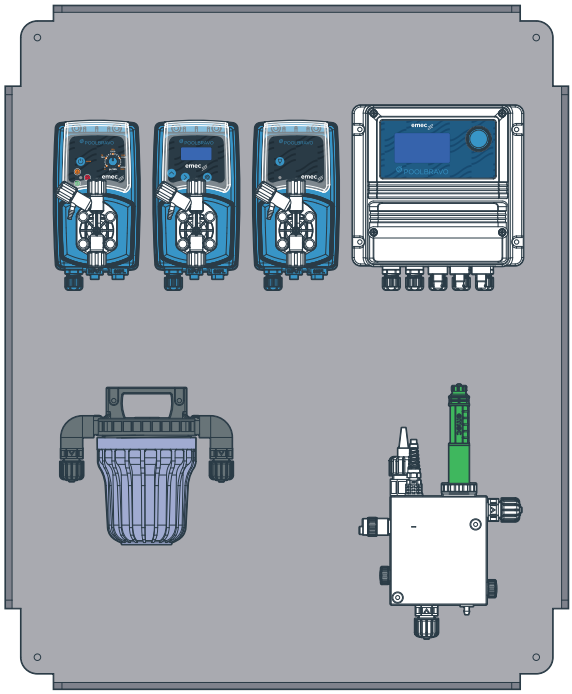
RED*: indicates that the device is in a lock alarm state.*

POOLBRAVO is an easy-to-use, high-precision all-in-one solution that eliminates the need for manual intervention on pool water and reduces chemical consumption. An elegant cover makes POOLBRAVO suitable for any installation context and, in addition to protecting against accidental leaks, at the same time preserves the cleanliness and integrity of its internal components.

COMPLETE CONTROL
The LD digital multiple-reading system, which is easy to use thanks to the LCD display and ENCODER knob that allow easy navigation through its configuration menus, and the wide choice of installable probes (allowing accurate measurement of hydrogen peroxide, oxygen, bromine, chlorine, ozone, peracetic acid, and chlorine dioxide) ensure POOLBRAVO's complete control over pre-set measurement parameters and chemical dosing. EMEC V-series metering pumps complete the dosing system.

REMOTE CONTROL
POOLBRAVO can be controlled and set remotely via the web with any smartphone, PC or tablet, thanks to integration with the proprietary ERMES online system, so you have everything under control at any time.





PANEL

- ACID PUMP
- CHLORINE PUMP

PANEL

- ACID PUMP
- CHLORINE PUMP
- ANTI-ALGAE PUMP / FLOCCULANT

ALARMS

- Main alarm

INPUTS

- Stand-by
- Flow
- pH level (+)
- pH level (-)
- Chlorine level
- pH probe
- Chlorine probe
- Temperature probe

OUTPUTS

- pulses proportional for pH
- pulses proportional for Chlorine
- Anti-alghe / Flocculante

Preconfigured solutions

Multi-parameter control and dosing system for Pools & Spas

PANELS BASIC | USB | ETH | GSM | WIFI | MODBUS

READING PARAMETERS

pH | ORP | FREE CHLORINE | TOTAL CHLORINE | COMBINED CHLORINE | TEMPERATURE | BROMINE | OZONE | FLOCULANT | ANTIALGAE

GENERAL FEATURES

- Multi-parameter control with WD, LD and CENTURY controllers
- Essence dosing
- Disinfection
- Dechlorination and filter washing systems
- Measurement and control of pH and active oxygen
- Remote control

PA-CEDB

TOTAL CONTROL OVER PH, ORP, FREE CHLORINE, TOTAL CHLORINE, COMBINED CHLORINE AND TEMPERATURE. FLOCCULANT AND ALGICIDE DOSING.

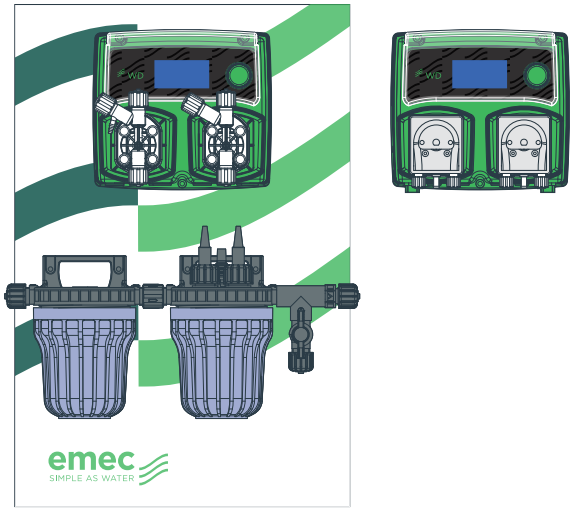
- MAX5 multi-parameter controller
- VMF0310 acid dosing pump (3 bar, 10 l/h)
- Chlorine dosing pump VMF0215 (3 bar, 15 l/h)
- VCLG flocculant dosing pump
- VMF0706 anti-algae dosing pump (7 bar, 6 l/h)
- NFIL filter
- EPHS pH probe
- ERHS ORP probe
- ETEPT temperature probe
- SCL3S/20 free chlorine probe
- SCL8/20 total chlorine probe
- SEPR proximity sensor
- PEF22R probe holder

Dimensions: 1000x800 mm

Pre-assembled panel, also available with custom color background

The images on these pages are for illustrative purposes only; for more information on possible configurations, contact the order department or your sales representative.

PA-WDPHRH



PROPORTIONAL ADJUSTMENT OF PH AND ORP

- WDPHRH 0310 controller (3 bar, 10 l/h), 0501 (5 bar, 1 l/h) or 1004 (10 bar, 4 l/h)
- NFIL filter
- ERHS ORP probe
- EPHS pH probe
- NPED4 electrode holder

Optional: Also available with Pump WDPHRH-PER0103 (1 bar, 3 l/h)

Dimensions: 400x600 mm

Pre-assembled panel, also available with custom color background

OUTPUT **RS485**

PA-LDPHRH

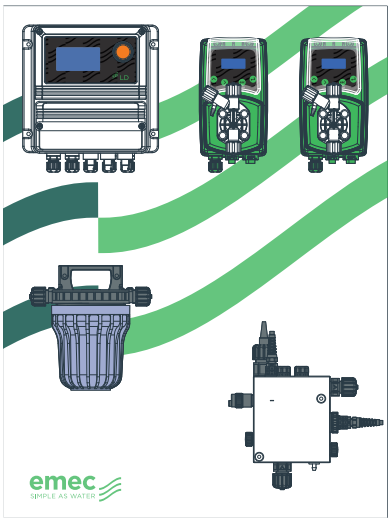
PROPORTIONAL ADJUSTMENT OF PH AND ORP

- LDPHRH controller
- VMF0310 dosing pump (3 bar, 10 l/h)
- VMF0310 dosing pump (3 bar, 10 l/h)
- NFIL filter
- EPHS pH probe
- ERHS ORP probe
- NPED4 electrode holder

Dimensions: 650x600 mm

Pre-assembled panel, also available with custom color background

PA-LDPHCLO



PROPORTIONAL ADJUSTMENT OF PH AND CHLORINE. MEDIUM-SIZED TANKS

- LDPHCL controller
- Acid dosing pump VMF0310 (3 bar, 10 l/h)
- Chlorine dosing pump VMF0215 (2 bar, 15 l/h)
- NFIL filter
- EPHS pH probe
- SEPR proximity sensor
- ETEPT temperature probe
- ECL6 open amperometric cell

Dimensions: 600x800 mm

Pre-assembled panel, also available with custom color background

The images on these pages are for illustrative purposes only; for more information on possible configurations, contact the order department or your sales representative.

Preconfigured solutions

Multi-parameter dosing and control system for Cooling Towers

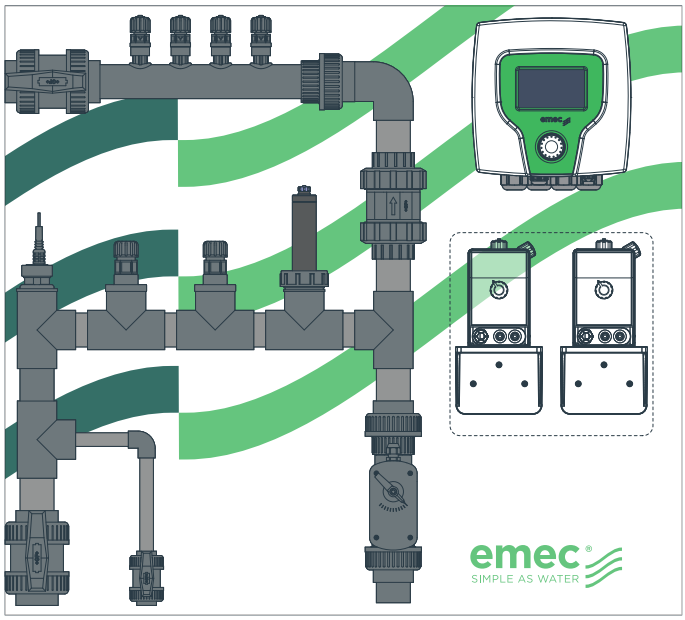
PANELS BASIC | USB | ETH | GSM | WIFI | MODBUS

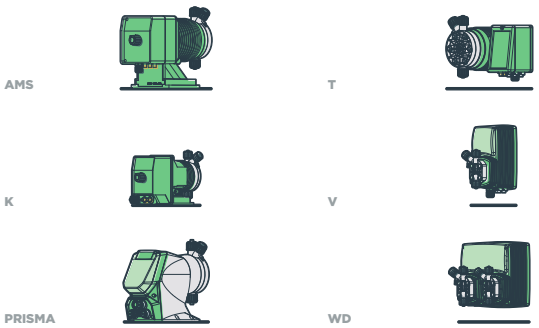
READING PARAMETERS

CONDUCTIVITY | INDUCTIVE CONDUCTIVITY | pH | ORP | CHLORINE (TOTAL, FREE AND COMBINED) | TEMPERATURE | HYDROGEN PEROXYDE | BROMINE | OZONE | CHLORINE DIOXIDE | PARACETIC ACID | TRACERS | CORROSION | TURBIDITY | MA INPUT

GENERAL FEATURES

- Multiparameter control with LD, MTOWER and CENTURIO TOWER controllers
- Designed for industrial water treatment
- Conductivity control
- Automatic purging
- Remote control





FEATURES

Panel with CENTURIO/MTOWER controller, with three measurements (CD, pH and ORP), measurement and metering of make-up and purge flow, with PIPING for measurement, 1 1/4" purge and 4 injection points, equipped with 2 dosing pumps (expandable).

Available in 2 versions: Capacitive CD and Inductive CD.

Optional: Also available with customised colour background

CONDUCTIVITY

controller | CENTURIO/MTOWER-CD-PH-RH

p. holder | PIPING with EV and injection points

probes | ECDCCPT
EPHS
ERHS

pumps | Up to 2x dosing pumps *(with bracket)*

INDUCTIVE CONDUCTIVITY

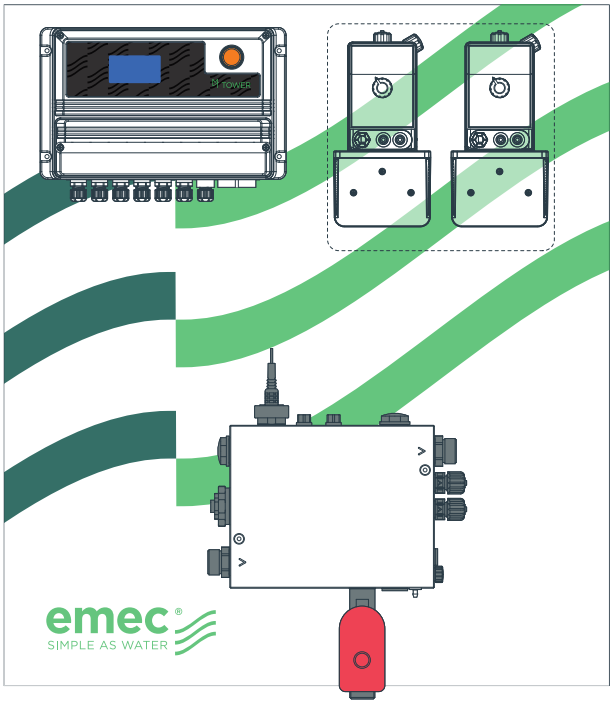
controller | CENTURIO/MTOWER-CD-PH-RH

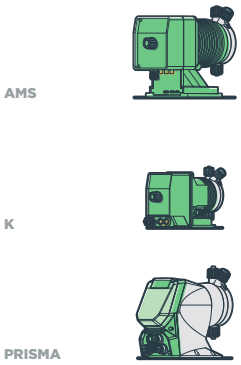
p. holder | PIPING with EV and injection points

probes | ECDIND
EPHS
ERHS

pumps | Up to 2x dosing pumps *(with bracket)*

The images on these pages are for illustrative purposes only; for more information on possible configurations, contact the order department or your sales representative.





FEATURES

Panel with MTOWER controller, for managing the bleed valve and chemical dosing, equipped with 2 dosing pumps and make-up and bleed flow measurement. Equipped with MANIFOLD, 1" controllable bleed valve, 2 dosing pumps, 2 injection points.

Available in 4 versions: CD (only); CD/PH; CD/RH; CD/PH/RH.

Optional: Also available with Centurio Tower controller
Also available with customised colour background

CONDUCTIVITY

controller | MTOWER-CD	**controller** | MTOWER-CD-PH	**controller** | MTOWER-CD-RH	**controller** | MTOWER-CD-PH-RH
p. holder | MANIFOLD 1EV	**p. holder** | MANIFOLD PLUS 1EV	**p. holder** | MANIFOLD PLUS 1EV	**p. holder** | MANIFOLD PLUS 1EV
probes | ECDCCPT1	**probes** | ECDCCPT1 EPHS	**probes** | ECDCCPT1 ERHS	**probes** | ECDCCPT1 EPHS ERHS
pumps | Up to 2x dosing pumps *(with bracket)*	**pumps** | Up to 2x dosing pumps *(with bracket)*	**pumps** | Up to 2x dosing pumps *(with bracket)*	**pumps** | Up to 2x dosing pumps *(with bracket)*

INDUCTIVE CONDUCTIVITY

controller | MTOWER-CDIND	**controller** | MTOWER-CDIND-PH	**controller** | MTOWER-CDIND-RH	**controller** | MTOWER-CDIND-PH-RH
p. holder | MANIFOLD 1EV-IND	**p. holder** | MANIFOLD PLUS 1EV-IND	**p. holder** | MANIFOLD PLUS 1EV-IND	**p. holder** | MANIFOLD PLUS 1EV-IND
probes | ECDCCPT1	**probes** | ECDIND EPHS	**probes** | ECDIND ERHS	**probes** | ECDIND EPHS ERHS
pumps | Up to 2x dosing pumps *(with bracket)*	**pumps** | Up to 2x dosing pumps *(with bracket)*	**pumps** | Up to 2x dosing pumps *(with bracket)*	**pumps** | Up to 2x dosing pumps *(with bracket)*

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Preconfigured solutions

SKID multi-parameter dosing and control system

SKID BASIC | USB | ETH | GSM | WIFI | MODBUS

The Skid System is a modular and autonomous system, built with specific characteristics, with the aim of assisting the operation of more complex industrial systems.

The advantage of this SKID comes from the fact that it is assembled and tested before arriving at the site of use. Integration with the main plant is therefore very rapid, and this allows interruptions to the production cycle to be minimised. An essential element of each Skid is the platform on which it is mounted. In addition to providing a solid and specific internal support, the platform must allow for easy and safe transport of the Skid after it has been assembled, and facilitate access by those responsible for its operation.

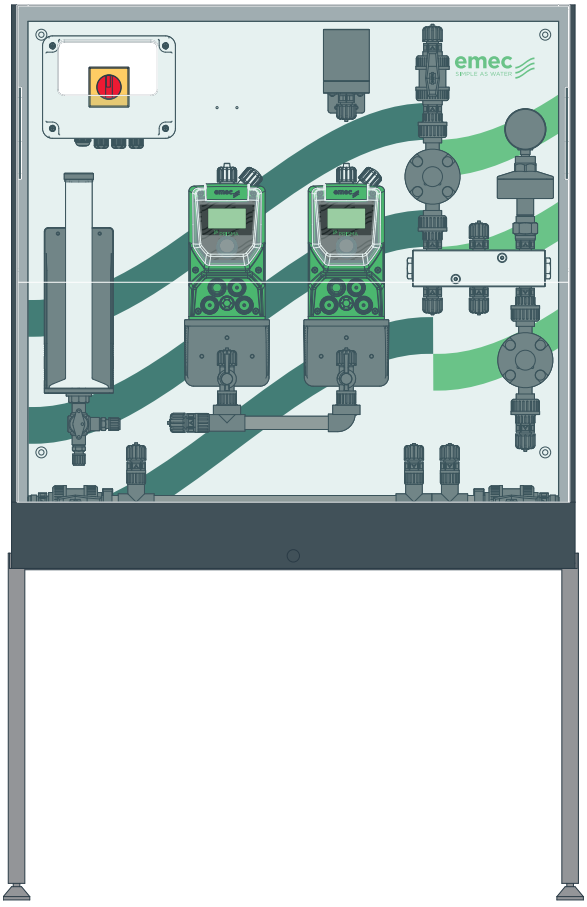
For this reason, each platform must be designed and built specifically for each individual Skid system.

READING PARAMETERS

- CONDUCTIVITY
- INDUCTIVE CONDUCTIVITY
- pH
- ORP
- CHLORINE (TOTAL, FREE AND COMBINED)
- TEMPERATURE
- HYDROGEN PEROXYDE
- BROMINE
- OZONE
- CHLORINE DIOXIDE
- PARACETIC ACID
- TRACERS
- CORROSION
- TURBIDITY
- mA INPUT

SKID SYSTEM MEDIUM

The MEDIUM size model designed with two **AMS MF** or **KMS MF** or **PRISMA MF** allows the complete treatment of products for medium-size industrial plants.



OVERVIEW

- PVC panel mounted in a PVC frame, 1 injection point, 2 pumps
- Always included: PVC valves and piping, bracket, safety valve, manifold, electrical box with switch
- DN 15 PN 16 with female thread for inlet and outlet
- Pump Head: PVDF or PP (no LPV)
- O-rings: VITON, DUTRAL, WAX

BASIC CONFIGURATION

- Structure + Panel (800 x 800 mm)
- No. 1 pump: (K CL PLUS, KMS MF, AMS MF, AMS CL PLUS, PRISMA)
- No. 1 pump: (K CL PLUS, KMS MF, AMS MF, AMS CL PLUS, PRISMA)

ACCESSORIES

- SOIM 3
- Calibration Cylinder
- Manometer
- Cover in PMMA
- Legs in steel
- Personalization: (the graphic of the panel)

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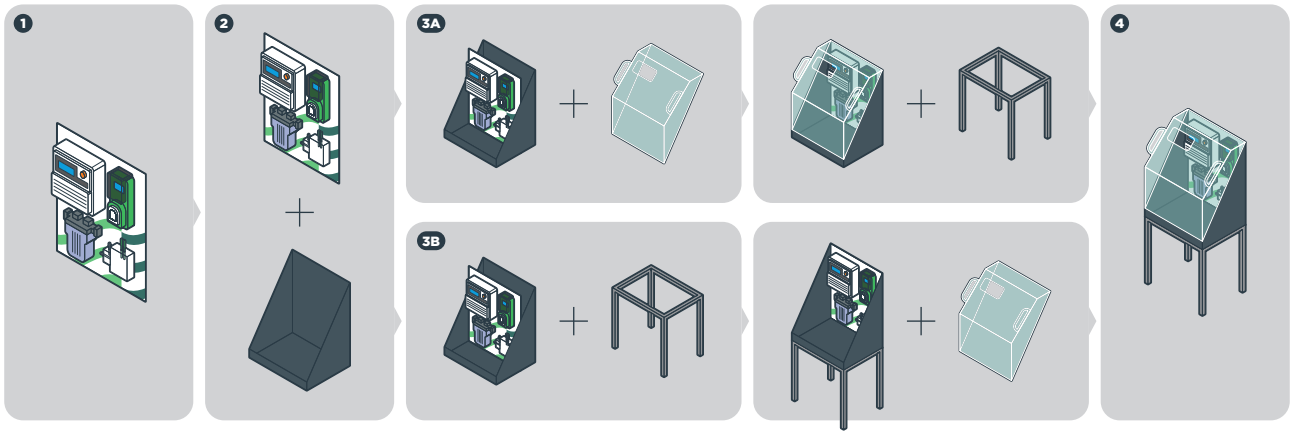
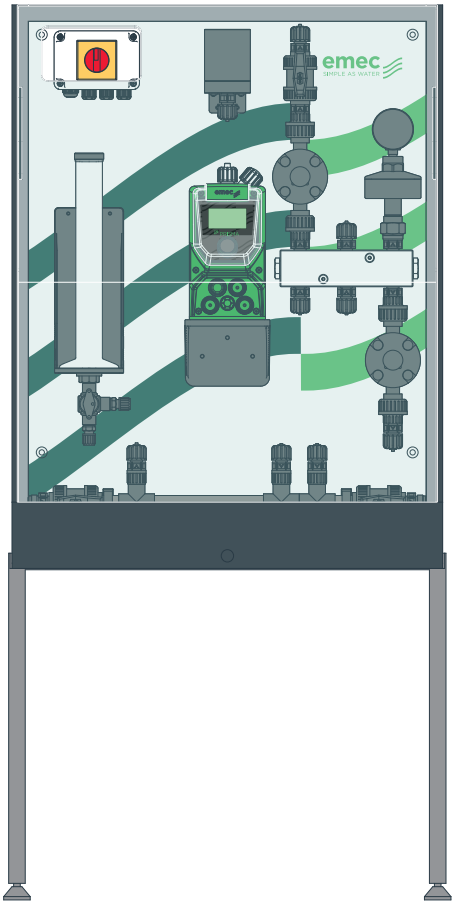
CUSTOMIZE YOUR SKID SYSTEM



SKID SYSTEM SMALL

The SMALL size model designed with a **PRISMA MF** (Multifunction dosing stepper motor pump) allows the complete treatment of products for small-size industrial plants.



OVERVIEW

- PVC panel mounted in a PVC frame, 1 injection point, 1 pump
- Always included: PVC valves and piping, bracket, safety valve, manifold, electrical box with switch
- DN 15 PN 16 with female thread for inlet and outlet
- Pump Head: PVDF or PP (no LPV)
- O-rings: VITON, DUTRAL, WAX

BASIC CONFIGURATION

- Structure + Panel (600 x 800 mm)
- No. 1 pump: (K CL PLUS, KMS MF, AMS MF, AMS CL PLUS, PRISMA)

ACCESSORIES

- SOIM 3
- Calibration Cylinder
- Manometer
- Cover in PMMA
- Legs in steel
- Personalization: (the graphic of the panel)

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cod. 20200970

EMEC S.r.l. Via Donatori di Sangue, 1 - 02100 Rieti - Italia
T. +39 0746 2284 1 F. +39 0746 2284 2
info@emecpumps.com - www.emecpumps.com