

# seko

## Solutions for **Pools & Spa**



Your Choice,  
Our Commitment

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# A Worldwide Group at your service

## Globally Present, Locally Active

Our Global presence ensures that we can support our Customers wherever they are. Supported by teams in over 20 countries, as well as by our accredited Partner Distributor network, we ensure professional, local customer support in over 120 countries, with the added benefit of rapid delivery of goods to meet your needs.

All this backed up and supported by a world-class team of Technical Customer Service, able to provide all the back up or technical support needed. With ISO certificated production sites in Europe, the Americas and Asia, we are close to our customers and fully compliant with all local norms both in terms of our product designs as much as our production facilities.

# How SEKO works for You

From the spark of an idea, through to the delivery of a solution, SEKO is with you all the way

SEKO supports its customers in every phase of a project, from the inception of an idea or request, through design and testing to launch and installation. Our in-house research, design and development teams work closely with the local teams, drawing on customer and market inputs. Then using state-of-the-art technologies to optimize costs and using our own specifically designed test benches to ensure rigorous, robust testing, we ensure a quality solution is delivered quickly to market.

No matter which processes and applications are planned SEKO has a solution in the cleaning and hygiene of kitchens and laundries and surfaces of all types in applications like **Offices and Restaurants, Hospitals and Hotels, Retailers and Schools, Car Washes and Swimming Pools, Cooling Towers, Energy, Food & Beverage, Water & Gas Utilities Potable and Waste Water Treatment.**

## 1 Partnership Philosophy

Being a privately-owned business means that we are here for the long term and can plan projects with and for our Customers, where both parties benefit. It means we can rapidly take decisions to invest our resources to ensure our optimum solutions are delivered.

## 2 Your Business, Our Solutions

Our extensive product range represents a unique combination of design, development and implementation know how. With a wide and ever evolving range of products and ancillaries, we can offer specific and comprehensive solutions for a variety of industrial applications. Our solutions are conceived to fit seamlessly into your operation, optimizing the processes and applications

## 3 Uniquely Positioned

SEKO's 3 business units, Cleaning & Hygiene, Water & Industry and Industrial Processes puts us in a unique position to be able to respond to the widest range of business needs, with a broad range that allows you the Customer to deal with just one company, simple.



# Pools & Spa

## An ever-evolving set of solutions for pristine pools

SEKO has been at the forefront of developing solutions for both residential and professional swimming pools for many years and has always delivered the most efficient, practical and complete solutions for the reseller or for the installer.

SEKO's design and manufacturing processes ensure all our solutions and systems deliver:

### Precision and Consistency

Ensuring that water quality is always at its best, balancing the variables that impact it, demands measuring and dosing systems with the highest accuracy and built with precision in mind, that can function in both indoor and outdoor environments. Parameters measured include: pH, ORP, Conductivity, Chlorine, Oxygen, Turbidity, Peracetic Acid, Ozone, Bromine, Peroxide and Flow rate.

### Safety and Reliability

The safety of customers, installers and operators is paramount, requiring the very best in terms of design and features. From the IP65 class enclosures of our dosing systems and controllers through to the precise choice of materials used to ensure full chemical compatibility over time, safety is at the forefront of our design ethos. Reliability drives good safety, and all SEKO's products are fully tested prior to leaving our warehouse.

### Ease of Use and Installation

As a Global company, SEKO is attuned to the differing needs of individual markets. When we design a new product, we ensure that installation is simple, we use uniform programming language solutions, that are intuitive and easy to understand and which on our Controllers is also available in multiple languages. From our plug and play residential systems, through to our complex professional systems for Water parks, these characteristics are always present.

### Operational Efficiency

From the domestic pool to the largest water parks, the costs of running a pool require close management, and for the larger public pools and water parks the question of water quality, and clarity of appearance become more critical from a brand safety and image point of view. Our SEKONet system offers significant benefits for larger water parks being able to monitor and control up to 99 controllers, giving peace of mind and outstanding operational benefits. From the simple plug and play residential product range, through to our Professional ranges and our Custom build options, SEKO has the range of pumps and controllers that will keep a pool crystal clean.





equipment for

# Residential Pools & Spa

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## Control and dosing systems

### Single pump systems

**PoolKronos – Basic – PoolBasic – Kontrol Invikta**

pH

ORP

Timed dosing

Proportional dosing

### Double pump systems

**PoolKronos – Basic – PoolBasic – Kontrol Invikta**

pH

ORP

Timed dosing

Proportional dosing

### Triple pump systems

**PoolBasic Pro - Kommander**

pH ; ORP ; Flocculant

pH minus ; ORP ; pH plus

pH ; ORP ; Chlorine ; Flocculant

pH ; ORP ; Circulation pump and boiler automation

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## Pre-assembled panel-mounted

pH ; ORP controller

pH ; ORP double peristaltic pumps

pH ; ORP double solenoid driven pumps



# Control and dosing systems

Peristaltic or solenoid driven dosing systems with built in controllers for single, double or multi parameter measurement

Combined systems with peristaltic pumps, solenoid driven dosing pumps and controller. to automatically measure and verify the values of the pool water. The units for residential applications have been designed so they do not require the presence of technical personnel.

- Peristaltic dosing pumps with 2 or 3 PVDF rollers and Santoprene or SekoExtra tubing
- Easy and advanced parameter setting
- Proportional dosing TWM (Time With Modulation) or FWM (Frequency With Modulation)
- Calibration process uses high quality pH and ORP probes
- Extra dosing available thanks to pH and chlorine relay
- Amperometric sensor measures chlorine PPM
- Circulation and boiler controller
- Installation kit included
- No technical skill required
- Remote alarm relay
- Circulation pump checks "Power On" flow trigger
- Input level probe checks product levels
- Multi language menu

## SINGLE PUMP FOR PH OR ORP MEASUREMENT

SEKO's principal offering for the residential pool market provides a user-friendly combination of products consisting of controllers and integrated proportional dosing pumps, the end user can adjust pH and chlorine values as required.



**PoolKronos** single peristaltic dosing systems with a stepper motor pump and 3 PVDF rollers using built in controllers for pH/ORP measurement.



**Basic** combined system with a peristaltic pump and either automatic proportional or timed dosing to adjust key chemical parameters.



**PoolBasic** user-friendly analogue or digital combined system with a peristaltic pump and single measurement with automatic proportional dosing.



**Kontrol Invikta** user-friendly solution combining a solenoid driven pump and single measurement with automatic proportional dosing.



### TWO DOSING PUMPS FOR MULTI-PARAMETER MEASUREMENT

SEKO has developed new advanced combined systems for the hotel and spa markets, featuring amperometric chlorine measurements which ensure full compliance with most local legislation.



**Kontrol Invikta Double** combines two solenoid driven pumps with a multi measurement capability and an automatic proportional dosing.

### TWO OR THREE DOSING PUMPS FOR MULTI-PARAMETER MEASUREMENT

SEKO's double or triple pump systems featuring amperometric chlorine measurements and an innovative system to control circulation pumps and boilers for hotel swimming pools and spas that fully complies with legislation.



**PoolBasic Pro** combines two or three peristaltic pumps and a multi measurement capability with automatic proportional dosing.



**Kommander** advanced combined system with two or three peristaltic pumps with either automatic proportional or timed dosing that adjusts chemical parameters and which comes with built-in functions that enable weekly timed management of the circulation pump and a temperature sensor for boiler activation using a relay.

### INSTALLATION KIT INCLUDED

pH and ORP probes, amperometric chlorine cell  
 By-pass and pressurized probe holder  
 pH and ORP buffer solutions  
 Piping DN50

Brass brush  
 5" with 80 µm cartridge  
 Ceramic foot filter and FPM non return valve  
 4x6 and 8x12 PVC and PE tubes



## PoolKronos 10

PoolKronos 10 is a peristaltic dosing system using **built in controllers for pH/ORP** measurement designed specifically for Swimming Pool applications and offers flexibility of installation, user-friendliness in programming and a constant chemical dosing by pH or ORP analysis.



### POOLKRONOS 10

- for pH (3.8 – 8.2)
- for ORP (400 – 999 mV)

### CONSTANT DOSING PUMP

Flow rate 1.5 l/h ; Pressure 1.5 bar

**POOL SIZE** Indoor 1 – 130 m<sup>3</sup> ; Outdoor 1 – 110 m<sup>3</sup>

### MAIN BOARD

Display LCD 7 segment

Power supply with galvanised electrical insulation  
100 – 240 Vac 50/60Hz

### IP65 ENCLOSURE

Dimensions 204 x 76 x 124 mm

Material PP with fiber glass

## PoolKronos 20

PoolKronos 20 builds on the PoolKronos 10 peristaltic system. Designed specifically for Swimming Pool applications, it also uses **built in controllers for pH/ORP analysis** and offers installation flexibility, user-friendly programming and proportional chemical dosing using pH or ORP analysis. The PoolKronos 20 has an **improved LCD display** for ease of reading measurements.



### POOLKRONOS 20

- for pH (4 – 10)
- for ORP (300 – 999 mV)

### PROPORTIONAL DOSING PUMP

Flow rate 1.5 l/h ; Pressure 1.5 bar

**POOL SIZE** Indoor 1 – 130 m<sup>3</sup> ; Outdoor 1 – 110 m<sup>3</sup>

### MAIN BOARD

Display LCD 8 letters x 2 lines

Power supply with galvanised electrical insulation  
220 Vac 50 Hz cord cable

### IP65 ENCLOSURE

Dimensions 204 x 76 x 124 mm

Material PP with fiber glass

## PoolKronos 50

PoolKronos 50 has the broadest range of measurement of the PoolKronos range coming with a **bigger 16 letter LCD display**. As with the rest of the PoolKronos products, it uses **built in controllers for pH/ORP analysis**. Similarly it is extremely flexible in terms of installation, user-friendly for programming and offers proportional chemical dosing by pH or ORP analysis.



### POOLKRONOS 50

- for pH (0 – 14)
- for ORP (0 – 2000 mV)

**PROPORTIONAL DOSING PUMP** with Stepper Motor pump ; Flow rate 2 l/h ; Pressure 3 bar

**POOL SIZE** Indoor 1 – 140 m<sup>3</sup>; Outdoor 1 – 120 m<sup>3</sup>

### MAIN BOARD

Display LCD 16 letters x 2 lines

Power supply with galvanised electrical insulation  
100 – 240 Vac 50/60Hz

### IP65 ENCLOSURE

Dimensions 207 x 117 x 145 mm

Material ABS

## Basic Series

The Basic Series, despite its name, offers an advanced combined system with a **peristaltic dosing pump and either automatic proportional or timed dosing** to adjust key chemical parameters in domestic, above ground pools and spa.



### BASIC

- PRO Input 4÷20mA or frequency pulse
- TIME by weekly timer built in

### DOSING PUMP

Flow rate 25 – 9750 ml/h ; Pressure 1.5 bar

**POOL SIZE** Indoor 5 – 130 m<sup>3</sup>; Outdoor 5 – 110 m<sup>3</sup>

### MAIN BOARD

Alphanumeric display 16 letters x 2 lines

Power supply 100 – 240 Vac 50/60Hz

### IP65 ENCLOSURE

Dimensions 234 x 162 x 108 mm

Material PP

## PoolBasic LED

PoolBasic LED is a user-friendly **analogue combined system with a peristaltic dosing pump and single measurement with automatic proportional dosing** that enables chemical adjustment for above ground pools.

### POOLBASIC LED

- for pH (6.2 – 8.2)
- for ORP (480 – 750 mV / 660 – 930 mV)

### PROPORTIONAL DOSING PUMP

Flow rate 1.5 or 5 l/h ; Pressure 1.5 bar

**POOL SIZE** Indoor 5 – 130 m<sup>3</sup> ; Outdoor 5 – 110 m<sup>3</sup>

### MAIN BOARD

Display LED

Power supply 220 – 240 Vac 50/60Hz

### IP65 ENCLOSURE

Dimensions 234 x 162 x 108 mm

Material PP



## PoolBasic Plus

PoolBasic Plus delivers a user-friendly solution combining a **peristaltic dosing pump and single measurement with automatic proportional dosing** that adjusts the chemical parameters for above ground pools.

### POOLBASIC PLUS

- for pH (0 – 14)
- for ORP (0 – 1000 mV)
- for ORP with shuko (0 – 1000 mV)

### PROPORTIONAL DOSING PUMP

Flow rate 1.5 or 5 l/h ; Pressure 1.5 bar

**POOL SIZE** Indoor 1 – 130 m<sup>3</sup> ; Outdoor 1 – 110 m<sup>3</sup>

### MAIN BOARD

Alphanumeric display 16 letters x 2 lines

Power supply 220 Vac 50/60Hz

### IP65 ENCLOSURE

Dimensions 234 x 162 x 108 mm

Material PP





## Kontrol Invikta

Like PoolBasic Plus, Kontrol Invika delivers a user friendly solution combining a **solenoid driven dosing pump and single measurement** with **automatic proportional dosing** but for larger volume above ground, indoor and outdoor pools.

### KONTROL INVIKTA

- for pH (0 – 14)
- for ORP (0 – 1000 mV)

### SOLENOID DRIVEN DOSING PUMP

Proportional dosing FWM

(Frequency With Modulation)

Flow rate 5 l/h ; Pressure 5 bar

Wetted parts Body in PVC, membrane in PTFE

**POOL SIZE** Indoor 50 – 350 m<sup>3</sup>; Outdoor 50 – 300 m<sup>3</sup>



### MAIN BOARD

Alphanumeric display 16 letters x 2 lines

Power supply 100 – 240 Vac 50/60Hz

### IP65 ENCLOSURE

Dimensions 234 x 162 x 108 mm

Material PP

## Kontrol Invikta Double

Designed for larger pools, Kontrol Invikta combines **two solenoid driven dosing pumps** with a **multi measurement capability** and an **automatic proportional dosing system** to deliver balanced chemical parameters for above ground and indoor and outdoor pools.

### KONTROL INVIKTA DOUBLE

- for pH (0 – 14) and ORP (0 – 1000 mV)
- for pH (0 – 14) and ORP (0 – 1000 mV) and **Free chlorine** (0 – 5 ppm with amperometric probe)

### SOLENOID DRIVEN DOSING PUMPS

Proportional dosing FWM

(Frequency With Modulation)

Flow rate 5 l/h ; Pressure 5 bar

Wetted parts Body in PVC, membrane in PTFE

**POOL SIZE** Indoor 50 – 350 m<sup>3</sup>; Outdoor 50 – 300 m<sup>3</sup>



### MAIN BOARD

Alphanumeric display 16 letters x 2 lines

Power supply 100 – 240 Vac 50/60Hz

### IP65 ENCLOSURE

Dimensions 234 x 162 x 108 mm

Material PP

## PoolBasic Pro

Offering the fullest range of possible measurements, the PoolBasic Pro range still offers a user-friendly solution. It **combines two peristaltic dosing pumps** and a **multi measurement capability** with **automatic proportional dosing** designed for above ground, indoor and outdoor pools. PoolBasic Pro is also available with a **3 pump configuration**.



### POOLBASIC PRO 2 PUMP VERSION

- for pH (0 – 14) and ORP (0 – 1000 mV)
- for pH (0 – 14) and ORP with shuko (0 – 1000 mV)
- for pH Plus (0 – 14) and pH Minus (0 – 14)
- for pH (0 – 14) and Flocculant dosage
- for pH (0 – 14) and Hydrogen peroxide<sup>(\*)</sup>
- for pH (0 – 14) and ORP (0 – 1000 mV) and Conductivity (0 – 20000 µS)
- for pH (0 – 14) and ORP (0 – 1000 mV) and Free chlorine (0 – 5 ppm)<sup>(\*\*)</sup>

### POOLBASIC PRO 2 PUMP MODBUS PROTOCOL COMMUNICATION VERSION

- for pH (0 – 14) and ORP (0 – 1000 mV) and Free chlorine (0 – 5 ppm)<sup>(\*\*)</sup>

### POOLBASIC PRO 2 PUMP B-WEEKLY TIMER VERSION

- for pH (0 – 14) and Hydrogen peroxide<sup>(\*)</sup>

### POOLBASIC PRO 2 PUMP SPA VERSION

- for pH (0 – 14) and ORP (0 – 1000 mV)
- for pH (0 – 14) and ORP (0 – 1000 mV) and Free chlorine (0 – 5 ppm)<sup>(\*\*)</sup>

### POOLBASIC PRO 3 PUMP VERSION

- for pH (0 – 14) and ORP (0 – 1000 mV) and Flocculant dosage
- for pH Plus (0 – 14) and ORP (0 – 1000 mV) and pH Minus (0 – 14)
- for pH (0 – 14) and ORP (0 – 1000 mV) and Free chlorine (0 – 5 ppm)<sup>(\*\*)</sup> and Flocculant dosage

### PROPORTIONAL DOSING PUMPS

Flow rate 0.4 or 1.5 or 5 l/h ; Pressure 1.5 bar

POOL SIZE Indoor 1 – 130 m<sup>3</sup>; Outdoor 1 – 110 m<sup>3</sup>

### MAIN BOARD

Alphanumeric display 16 letters x 2 lines

Power supply 220 Vac 50/60Hz

### IP65 ENCLOSURE

Dimensions 234 x 162 x 108 mm

Material PP

(\*) By time and temperature compensation

(\*\*) With Free Chlorine Amperometric probe

# Kommander

Kommander is an advanced combined system available with **two or three peristaltic pumps** with **either automatic proportional or timed dosing** that adjusts chemical parameters for both outdoor pools and spa centers. Furthermore, the Kommander comes with additional functions built in. The first is a **weekly timer to regulate the circulation pump** and the second is a **temperature sensor that activates the boiler using a relay switch**.



## KOMMANDER 2 PUMP VERSION

- for pH (0 – 14) and ORP (0 – 1000 mV)

## KOMMANDER 3 PUMP VERSION

- for pH (0 – 14), ORP (0 – 1000 mV) and Flocculant dosage

## PROPORTIONAL DOSING PUMPS

Flow rate 1.5 or 5 l/h ; Pressure 1.5 bar

**POOL SIZE** Indoor 1 – 130 m<sup>3</sup>; Outdoor 1 – 110 m<sup>3</sup>

## CIRCULATION PUMP AND BOILER ACTIVATION BY POWERED RELAY max 1.5 kW load

## MAIN BOARD

Alphanumeric display 16 letters x 2 lines

Power supply 220 Vac 50/60Hz

## IP65 ENCLOSURE

Dimensions 234 x 162 x 108 mm

Material PP

# Pre-assembled panel-mounted

The pre-assembled panels of SEKO's range offer advanced solutions for residential swimming pools. A flexible system for quick installation, that combines a pre-selected number of products assembled on a small panel, including a by-pass probe holder, electrical box and controller unit.

- Advanced parameter setting
- Proportional dosing TWM (Time With Modulation) or FWM (Frequency With Modulation)
- Calibration process uses high quality pH and ORP probes
- Extra dosing available thanks to pH and chlorine relay
- Installation kit included
- Amperometric sensor measures chlorine PPM
- No technical skill required
- Remote alarm relay
- Circulation pump checks power on "Flow Trigger"
- Input level probe checks product levels
- Multi language menu
- Circulation and boiler controller

## INSTALLATION KIT INCLUDED

pH and ORP probes  
 pH and ORP buffer solutions  
 Ceramic foot filter and FPM non return valve  
 4x6 and 8x12 PVC and PE tubes



## Easy Panel

A simple pre-assembled panel with an automatic proportional dosing system for simple chemical parameter regulation for indoor and outdoor pools.

### EASY PANEL

- for pH (0 – 14) and ORP (0 – 1000 mV)
- for pH (0 – 14) and ORP (0 – 1000 mV) and Free chlorine (0 – 5 ppm with amperometric probe)

### HYDRAULIC PROBE HOLDER

2 PSS7 (single probe)  
 2 Washable cartridge filters (80 µm)

### MAIN BOARD

Power supply 100 – 240 Vac 50/60Hz  
 Cable Box with power supply 230Vac to connect external dosing pump  
 Relay 250 V 10 A (Resistive Load) each measure



### IP65 PRE-ASSEMBLED PANEL-MOUNTED

Dimensions 630 x 420 x 10 mm

Material PP



## Easy Basic

An entry level pre-assembled panel with an automatic proportional dosing system for simple chemical parameter regulation for above ground pools.

### EASY BASIC

- for pH (0 – 14)
- for ORP (0 – 1000 mV)

### HYDRAULIC PROBE HOLDER

2 PSS7 (single probe)  
2 Washable cartridge filters (80 µm)

### PROPORTIONAL DOSING PUMPS

Flow rate 1.5 or 5 l/h; Pressure 1.5 bar  
Santoprene tubing

**POOL SIZE** Indoor 1 – 130 m<sup>3</sup>; Outdoor 1 – 110 m<sup>3</sup>



### MAIN BOARD

Alphanumeric display 16 letters x 2 lines  
Power supply 220 Vac 50/60Hz

### IP65 PRE-ASSEMBLED PANEL-MOUNTED

Dimensions 630 x 420 x 10 mm  
Material PP

## Easy Invikta

A simple pre-assembled panel with an automatic proportional dosing system for simple chemical parameter regulation for indoor and outdoor pools.

### EASY INVIKTA

- for pH (0 – 14)
- for ORP (0 – 1000 mV)

### HYDRAULIC PROBE HOLDER

2 PSS7 (single probe)  
2 Washable cartridge filters (80 µm)

### SOLENOID DRIVEN DOSING PUMPS

Proportional dosing FWM  
(Frequency With Modulation)  
Flow rate 5 l/h ; Pressure 5 bar  
Wetted parts Body in PVC, membrane in PTFE

**POOL SIZE** Indoor 50 – 350 m<sup>3</sup>; Outdoor 50 – 300 m<sup>3</sup>



### MAIN BOARD

Alphanumeric display 16 letters x 2 lines  
Power supply 100 – 240 Vac 50/60Hz

### IP65 PRE-ASSEMBLED PANEL-MOUNTED

Dimensions 630 x 420 x 10 mm  
Material PP



equipment for

# Professional Pools

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## Photometer Systems and PoolPhotometer

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DPD Free Chlorine ; pH ; ORP ; Temperature

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DPD Free/Total chlorine ; pH ; ORP ; Temperature

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DPD Free/Total and Combine chlorine ; pH ; ORP ; Temperature

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## Kontrol Panel and Kontrol Guard Tech

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pH ; ORP ; Temperature

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pH ; Free chlorine (Amperometric / Potentiostatic cell) ;  
Temperature

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pH ; Free Chlorine (Amperometric / Potentiostatic Cell) ; ORP ;  
Temperature

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pH ; Free/Total and Combine chlorine (Amperometric /  
Potentiostatic Cell) ; ORP ; Temperature

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## Kontrol Tekna panels with controllers

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pH ; ORP ; Temperature

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pH ; Free/Total chlorine ; Temperature

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pH ; Peracetic acid ; Temperature

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pH ; Hydrogen peroxide ; Temperature

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# Photometer

The main solution for professional swimming pools, Photometer is a complete controller that checks free, total and combined chlorine in the water. Thanks to its use of the DPD analysis method, it ensures a perfect results every time.

- Professional parameter setting
- Proportional dosing
- Calibration process uses high quality pH and ORP probes
- Extra dosing available thanks to pH and chlorine relay
- Installation kit included
- DPD analysis method measures Chlorine PPM
- Technical skill required
- Remote alarm relay
- Input level probe checks product levels
- Graphic display controller provides graphical historical reports for each measure thanks to the built-in data logger
- Multilingual controller interface makes for simple operation

## MEASURING RANGE

pH 0 – 14

ORP  $\pm$  1500 mV

Chlorine 0 – 5 ppm<sup>(\*)</sup>

Combined chlorine 0 – 1/ 5/ 10/ 20/ 200 ppm<sup>(\*\*)</sup>

(\*) DPD Method Light wavelength 520 nm

(\*\*) Using software

Temperature : 0 – 100°C with PT100/PT1000 sensors

## INSTALLATION KIT INCLUDED

pH and ORP Probes

pH and ORP Buffer solutions

DPD Buffer Solution



## HYDRAULIC PROBE HOLDERS

Features a new hydraulic device that comes with a water drain dedicated to chemical reagents that are used during chlorine measuring. This allows a reduction in the amount of water used for chlorine measurement.

The water that is used for the pH and ORP probes can be returned to the compensation basin, while only the water containing chemical DPD reagent will be discharged into special tanks ensuring compliance with local laws. Fast installation comes thanks to quick couplings for water Inlet and outlet fixings.

The optical unit assures a very high accuracy level of chlorine measurement **with a 520 nm sensor and LED light device**. All Photometer use DPD powder for dilution prior to use that offers a reliable solution at each application.



Probe holder plexiglass body and photometer chamber

IN/OUT tubes 8x12 mm

Back pressure

Temperature 60 °C



## Photometer Systems

The SEKO Photometer Systems combine "6 parameter" multi-parameter controllers with a sampler dedicated to chlorine measurement.

### PHOTOMETER SYSTEMS

- for Chlorine and pH
- for Chlorine and pH and ORP
- for Chlorine and Combined chlorine and pH and ORP

### DPD PUMP

Peristaltic pump with 2 mechanical support

Silicon tube 3x5 mm

Flow rate 0.15 cc sample measure

Back pressure

DPD Chemical 1 liter 24 days at 5 minute period sample

### MAIN BOARD

Graphic display 240x128 pixel with back light

Power supply 100 – 240 Vac 50/60Hz



### IP65 ENCLOSURE BOX

Dimensions 276 x 514 x 127 mm

Material ABS

## Pool Photometer

The SEKO Pool Photometer features a "4 parameter" multi-parameter controllers combined with a sampler dedicated to chlorine measurement.

### POOL PHOTOMETER

- for Chlorine and pH and ORP
- with Data logger included
- with Probe holder for Hydraulic closed loop

### DPD PUMP

Peristaltic pump with 2 mechanical support

Silicon tube 3x5 mm

Flow rate 0.07 cc sample measure

Back pressure

DPD Chemical 1 liter 24 days at 5 minute period sample

### MAIN BOARD

Graphic display 240x128 pixel with back light

Power supply 100 – 240 Vac 50/60Hz



### IP65 ENCLOSURE BOX

Dimensions 630 x 420 x 10 mm

Material PP

# Kontrol Panels

Ultimate flexibility offered for the professional pool market comes from the Kontrol 800 panel range, which assures a complete and superior system to control large complex pool systems.

- Professional parameter setting
- Proportional dosing
- Calibration process uses high quality pH and ORP probes
- Extra dosing available thanks to pH and chlorine relay
- Installation kit included
- Technical skill required
- Amperometric measurement of chlorine PPM value
- Remote alarm relay
- Input level probe checks product levels
- Multi language menu
- Tekna Panel skid for quick installation

## MEASURING RANGE

pH 0 – 14  
 ORP ± 2000 mV  
 Chlorine 0 – 5 ppm  
 Chlorine dioxide, Free amperometric chlorine,  
 Total potentiostatic chlorine, Combined chlorine<sup>(\*)</sup>  
 0 – 1/ 5/ 10/ 20/ 200 ppm

(\*) Using software

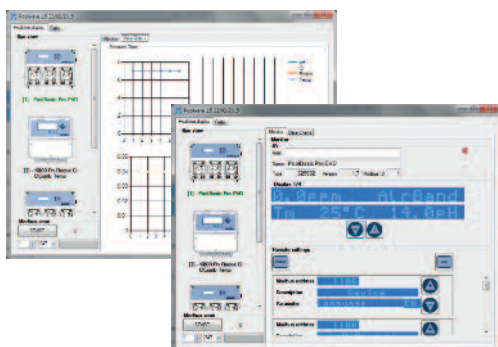
## HYDRAULIC PROBE HOLDERS

Transparent modular probe holder PSS-Plexi  
 IN/OUT tubes 8x12 mm  
 Pressure 5 bar  
 Temperature 60 °C

## INSTALLATION KIT INCLUDED

pH and ORP probes, amperometric chlorine cell  
 By-pass probe holder  
 pH and ORP buffer solutions

Brass brush  
 5" with 80 µm cartridge  
 Ceramic foot filter and FPM non return valve



## PoolWare Kit for Kontrol 800 Panel

PoolWare software can control up to 99 Kontrol 800 panels simultaneously thanks to a data network.

It is possible to connect every unit to a PC which means a single software programme can set and manage all the system parameters.

## Kontrol 800 Panel

A pre-assembled, panel-mounted system that manages and adjusts the pH and chlorine levels with automatic proportional dosing for public pools.

### WITH AMPEROMETRIC PROBES

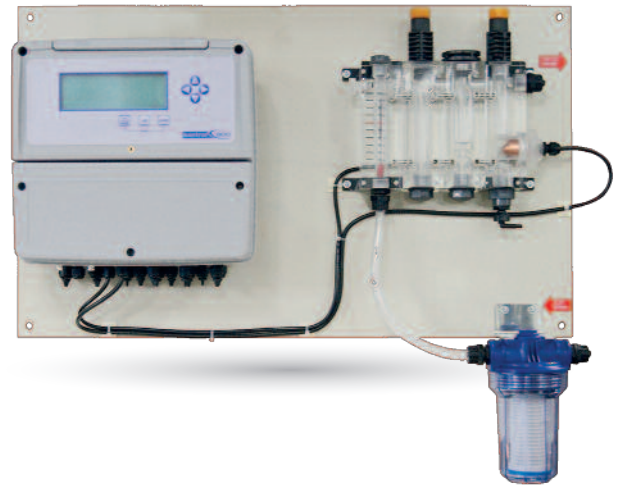
- for pH and ORP
- for Chlorine
- for Chlorine and pH
- for Chlorine and pH and ORP

### WITH POTENZIOSTATIC PROBES

- for Chlorine and Chlorine dioxide
- for Chlorine and Chlorine dioxide and pH
- for Chlorine and Chlorine dioxide and pH and ORP

### HYBRID MODEL

- Free amperometric chlorine and total potentiostatic chlorine and combined chlorine (using software) and pH and ORP



### MAIN BOARD

Alphanumeric display 20 letters x 4 lines  
Power supply 100 – 240 Vac 50/60Hz

### IP65 PRE-ASSEMBLED PANEL-MOUNTED

Dimensions 276 x 514 x 127 mm  
Material PP

## Tekna Panel

### Skid for Kontrol 800 Panel

A pre-assembled, panel-mounted skid featuring solenoid driven dosing pumps and controllers that comes in both a digital and analogue version.

### TEKNA PANEL

- ANALOGUE 2 Tekna AKL
- DIGITAL 2 Tekna TPG

### SOLENOID DRIVEN DOSING PUMPS

Tekna AKL 603 or 803 analogue solenoid driven dosing pump with constant manually adjustable flow rate.

Tekna TPG 803 digital solenoid driven dosing pump with manually adjustable constant flow rate, or with proportional flow rate that is based on readings from an external analogue (4 – 20 mA) or digital signal (water meter)

(603) Flow rate 4 – 8 l/h ; Pressure 2 – 12 bar

(803) Flow rate 20 – 110 l/h ; Pressure 0,1 – 5 bar

Wetted parts Body in PVDF ; Membrane in PTFE



### POOL SIZE

(603) Indoor 150 – 600 m<sup>3</sup>; Outdoor 100 – 500 m<sup>3</sup>

(803) Indoor 300 – 1500 m<sup>3</sup>; Outdoor 200 – 1200 m<sup>3</sup>

### MAIN BOARD

Alphanumeric display 16 letters x 2 lines  
Power supply 100 – 240 Vac 50/60Hz

### IP65 PRE-ASSEMBLED PANEL-MOUNTED

Dimensions 600 x 300 x 10 mm  
Material PVC

# Kontrol Guard Tech

The Kontrol Guard Tech is the most advanced model in the SEKO range of controllers. The new Kontrol Guard Tech unit, with its 5" digital graphic display, combines the traditional elements of control and dispensing with a totally digital control system, which facilitates the setting and monitoring of various parameters, depending on the application, using and comparing historic values to identify or analyze any errors.

- New box design, with increased instrument protection
- Graphic display 5" (240x128 pixel) for easier reading
- Control unit with full parameter access for complete monitoring
- Communication via Serial Port RS485 by MODBUS RTU/ASCII protocol for remote control interface
- Easy to set parameters for quick technical overview
- Multiple language menu for flexible operator interface
- Control unit has galvanized electrical and measuring insulation to ensure reliable performance
- CE/UL compliant to ensure full health and safety compliance

## MEASURING RANGE

pH 0 – 14

ORP  $\pm$  2000 mV

Chlorine 0 – 5 ppm

Chlorine and Chlorine dioxide

0 – 1/ 5/ 10/ 20/ 200 ppm

Free amperometric chlorine

0 – 1/ 5/ 10/ 20/ 200 ppm

Total potentiostatic chlorine

0 – 1/ 5/ 10/ 20/ 200 ppm

Combined chlorine<sup>(\*)</sup>

0 – 1/ 5/ 10/ 20/ 200 ppm

Turbidity<sup>(\*)</sup>

0 – 4/ 40/ 400/ 4000 NTU

(\*) Using software

## HYDRAULIC PROBE HOLDERS

Transparent modular probe holder PSS-Plexi

IN/OUT tubes 8x12 mm

Pressure 5 bar

Temperature 60 °C

## MAIN BOARD

Graphic display 5" 20 letters x 4 lines

Power supply 100 – 240 Vac 50/60Hz

## IP65 CABINET

Dimensions 440 x 740 x 175 mm

Material PP

## INSTALLATION KIT INCLUDED

pH and ORP probes, amperometric chlorine cell

By-pass probe holder

pH and ORP buffer solutions

Brass brush

5" with 80  $\mu$ m cartridge





#### INTUITIVE ICONS AND CLEAR DISPLAY

Thanks to the high contrast image of the graphic display, and the easy to read and self explanatory icons that are used, the operator is guided step by step through the applications.

#### WITH AMPEROMETRIC PROBES

- for Chlorine
- for Chlorine and pH
- for Chlorine and pH and ORP
- for Chlorine and pH and Turbidity

#### WITH POTENZIOSTATIC PROBES

- for Chlorine and Chlorine dioxide
- for Chlorine and Chlorine dioxide and pH
- for Chlorine and Chlorine dioxide and pH and ORP

#### HYBRID MODEL

- Free amperometric chlorine, Total potentiostatic chlorine, Combined chlorine and pH and ORP
- Free amperometric chlorine, Total potentiostatic chlorine, Combined chlorine and pH and ORP and Turbidity

#### PH/ORP MODEL

- for pH and ORP



# Kontrol Tekna panels

Kontrol Tekna panels benefit from the robust Tekna range of pumps, offering the professional pool operator peace of mind and a completeness of range.

- Professional parameter setting
- Proportional dosing
- Calibration process uses high quality pH and ORP probes
- Extra dosing available thanks to pH and chlorine relay
- Installation kit included
- Technical skill required
- Remote alarm relay
- Multi language menu
- Potentiostatic measurement of chlorine PPM value

## TEKNA FEATURES

### Compatible

The PVDF pump head that comes as standard offers complete compatibility for almost all chemicals that may be used in swimming pool water treatment. The ceramic ball valve which also comes as standard improves the pumping reliability and the chemical compatibility of the whole liquid end.

### Reliable

Advanced design and manufacturing processes allows SEKO's diaphragm to have a unique life expectancy. Made of pure solid PTFE, the diaphragm is compatible with most chemicals and has been rigorously tested allowing SEKO to guarantee its diaphragms for 5 years that means routine diaphragm replacement is no longer needed.

## MEASURING RANGE

pH 0 – 14

ORP  $\pm$  1500 mV

**Chlorine and Chlorine dioxide**

0 – 0.5/ 1/ 2/ 5/ 10 / 20/ 200 ppm

**Peracetic acid**

0 – 500/ 2000/ 10.000/ 20.000 ppm

**Hydrogen peroxide**

0 – 500/ 1000/ 2000/ 10000/ 100000 ppm

## HYDRAULIC PROBE HOLDERS

**Transparent modular** probe holder PSS-Plexi

**IN/OUT tubes** 8x12 mm

**Pressure** 5 bar

**Temperature** 60 °C

## MAIN BOARD

**Alphanumeric display** 16 letters x 2 lines

**Power supply** 100 – 240 Vac 50/60Hz

## IP65 PRE-ASSEMBLED PANEL-MOUNTED

**Dimensions** 700 x 420 x 10 mm

**Material** PVC

## INSTALLATION KIT INCLUDED

pH and ORP probes, amperometric chlorine cell

By-pass probe holder

pH and ORP buffer solutions

Brass brush

5" with 80  $\mu$ m cartridge

Ceramic foot filter and FPM non return valve



## Tekna TPR Panel

A **two solenoid driven dosing pump with control instruments pre-assembled panel-mounted system** that features integrated by-pass hydraulic probe holders and transparent filter housing.

Comes with pre-wired connections contained within a IP65 standard electrical box.

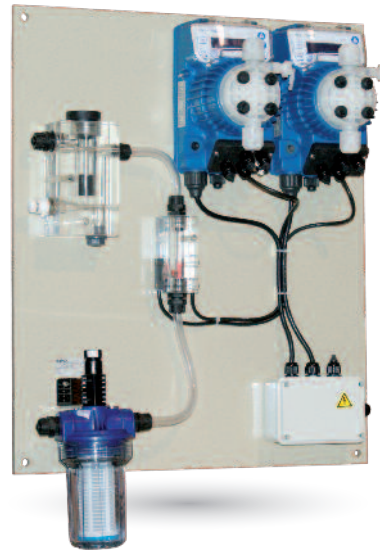
### TEKNA TPR PANEL

- pH and ORP

### POOL SIZE

(603) Indoor 150 – 600 m<sup>3</sup>; Outdoor 100 – 500 m<sup>3</sup>

(803) Indoor 300 – 1500 m<sup>3</sup>; Outdoor 200 – 1200 m<sup>3</sup>



### PROPORTIONAL SOLENOID DRIVEN DOSING PUMPS

2 Tekna TPR 603 or 803 model with pH/ORP control meter built in

(603) Flow rate 4 – 8 l/h ; Pressure 2 – 12 bar

(803) Flow rate 20 – 110 l/h ; Pressure 0.1 – 5 bar

Wetted parts Body in PVDF ; Membrane in PTFE

## Tekna TPR-TMP Panel

Offering a **broader range of parameter measurements**, Tekna TPR-TMP Panel is a **two solenoid driven dosing pump with control instruments pre-assembled panel-mounted system** that features integrated by-pass hydraulic probe holders and transparent filter housing.

Comes with pre-wired connections contained within a IP65 standard electrical box.

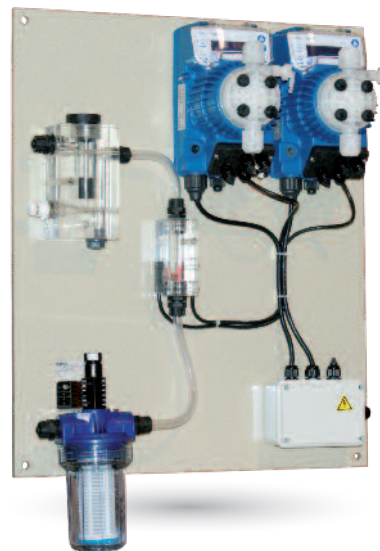
### TEKNA TPR-TMP PANEL

- pH and ORP and Chlorine and Chlorine dioxide and Peracetic acid and Hydrogen peroxide

### POOL SIZE

(603) Indoor 150 – 600 m<sup>3</sup>; Outdoor 100 – 500 m<sup>3</sup>

(803) Indoor 300 – 1500 m<sup>3</sup>; Outdoor 200 – 1200 m<sup>3</sup>



### PROPORTIONAL SOLENOID DRIVEN DOSING PUMPS

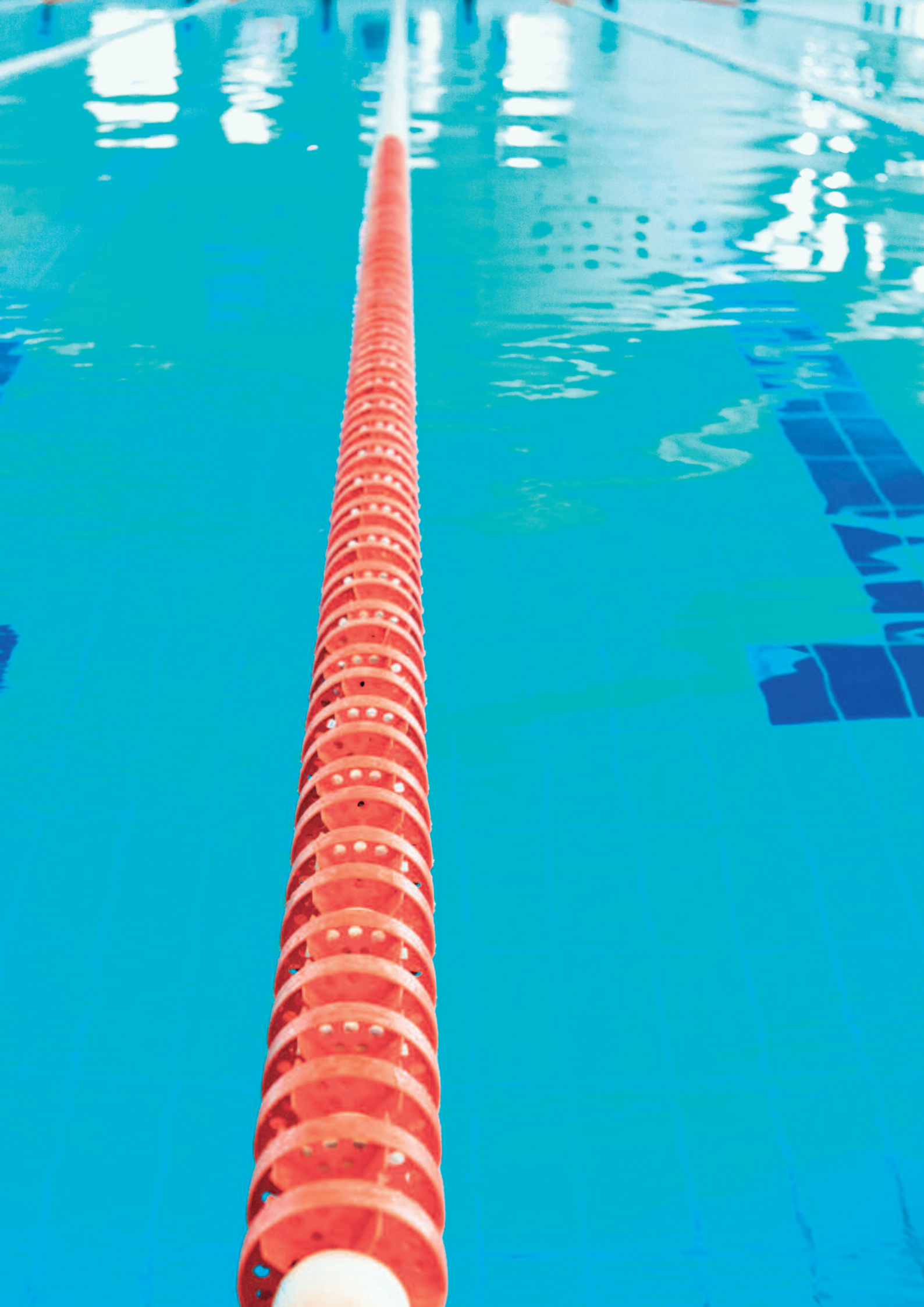
Tekna TPR 603 or 800 model with pH/ORP control meter built in

1 Tekna TMP 603 or 800 model with Chlorine, Hydrogen Peroxide or Peracetic acid control meter

(603) Flow rate 4 – 8 l/h ; Pressure 2 – 12 bar

(803) Flow rate 20 – 110 l/h ; Pressure 0.1 – 5 bar

Wetted parts Body in PVDF ; Membrane in PTFE



equipment for

# Pools & Spa

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## Dosing pumps

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P Series

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Dynamik

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Kronos

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Invikta

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## Controllers

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Kontrol 50

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Kontrol 42

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Kontrol 100

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Kontrol 500

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page 33

## Blowers - Side channel compressors

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BL040

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BL050

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BL820

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page 33

## Pool Cleaning Station

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# Dosing pumps

A complete range of peristaltic, solenoid driven and motor driven dosing pumps for Swimming pool applications with options to meet any need.

## P Series

Basic peristaltic pumps for residential above ground pools

### MODELS

PE1.5	Flow rate 1.5 l/h ; Pressure 0.5 bar
PE5	Flow rate 5 l/h ; Pressure 0.5 bar
PE4	Flow rate 4 l/h ; Pressure 0.5 bar
PE7	Flow rate 7 l/h; Pressure 0.5 bar



**POOL SIZE** Indoor 1 – 150 m<sup>3</sup>; Outdoor 1 – 110 m<sup>3</sup>

## Dynamik

Advanced peristaltic pumps for seasonal dosing action or micro dosing application

### MODELS

CK	Flow rate 4 , 2 , 1 l/h ; Pressure 1.5 bar
Pro	Flow rate 2.5 – 9750 ml/h ; Pressure 1.5 bar



**POOL SIZE** Indoor 1 – 250 m<sup>3</sup>; Outdoor 1 – 110m<sup>3</sup>

## Kronos FM

Professional peristaltic pumps with stepper motor for high accuracy dosing action

### MODELS

50 FM02	Flow rate 2 l/h ; Pressure 3 bar
50 FM10	Flow rate 10 l/h ; Pressure 2 bar
50 FM15	Flow rate 15 l/h ; Pressure 0.1 bar



**POOL SIZE** Indoor 1 – 280 m<sup>3</sup>; Outdoor 1 – 160 m<sup>3</sup>

## Invikta

Basic solenoid driven dosing pumps for residential outdoor pools

### MODELS

KCL 633	Flow rate 5 l/h ; Pressure 5 bar
KCL 632	Flow rate 2 l/h ; Pressure 7 bar



**POOL SIZE** Indoor 1 – 250m<sup>3</sup>; Outdoor 1 – 110m<sup>3</sup>

## Kompact

Advanced solenoid driven dosing pumps for medium sized indoor and outdoor pools

### MODELS

AML 200	Flow rate 5 or 3 l/h ; Pressure 8 or 10 bar
AMM 200	Flow rate 5 or 3 l/h ; Pressure 8 or 10 bar



**POOL SIZE** Indoor 5 – 250 m<sup>3</sup>; Outdoor 5 – 110 m<sup>3</sup>



## Tekna

Professional wall mounted solenoid driven dosing pumps for medium or large indoor and outdoor pools

### MODELS

ANALOGUE AKL – DIGITAL TPG; TPR; TCK

### VERSION

603 Flow rate 4 – 8 l/h ; Pressure 2 – 12 bar  
 800 Flow rate 7 – 18 l/h ; Pressure 1 – 16 bar  
 803 Flow rate 20 – 110 l/h ; Pressure 0.1 – 5 bar

### POOL SIZE

Indoor 5 – 250 m<sup>3</sup> ; Outdoor 5 – 110 m<sup>3</sup>  
 Indoor 200 – 750 m<sup>3</sup> ; Outdoor 150 – 650 m<sup>3</sup>  
 Indoor 300 – 1500 m<sup>3</sup> ; Outdoor 200 – 1200 m<sup>3</sup>



## Maxima

Professional base mounted solenoid driven dosing pumps features new revolutionary electronic stroke length regulation for medium or large indoor and outdoor pools

### MODELS

ANALOGUE MKL – DIGITAL MPG; MPR

### VERSION

603 Flow rate 4 – 8 l/h ; Pressure 2 – 12 bar  
 800 Flow rate 7 – 18 l/h ; Pressure 1 – 16 bar  
 803 Flow rate 20 – 110 l/h ; Pressure 0.1 – 5 bar

### POOL SIZE

Indoor 5 – 250 m<sup>3</sup> ; Outdoor 5 – 110 m<sup>3</sup>  
 Indoor 200 – 750 m<sup>3</sup> ; Outdoor 150 – 650 m<sup>3</sup>  
 Indoor 300 – 1500 m<sup>3</sup> ; Outdoor 200 – 1200 m<sup>3</sup>



## Tekba

Professional digital solenoid driven dosing pump with mechanical stroke length regulation for medium or large indoor and outdoor pools

### MODELS

ANALOGUE EML – DIGITAL EMC; EMM

### VERSION

603 Flow rate 4 – 8 l/h ; Pressure 2 – 12 bar  
 800 Flow rate 7 – 18 l/h ; Pressure 1 – 16 bar  
 803 Flow rate 20 – 110 l/h ; Pressure 0.1 – 5 bar

### POOL SIZE

Indoor 5 – 250 m<sup>3</sup> ; Outdoor 5 – 110 m<sup>3</sup>  
 Indoor 200 – 750 m<sup>3</sup> ; Outdoor 150 – 650 m<sup>3</sup>  
 Indoor 300 – 1500 m<sup>3</sup> ; Outdoor 200 – 1200 m<sup>3</sup>



## Spring

Professional plunger motor driven dosing pumps for large indoor and outdoor pools

### MODELS

MS1 Flow rate 220 l/h ; Pressure 7 bar  
 Flow rate 310 l/h ; Pressure 7 bar  
 MS0 Flow rate 30 l/h ; Pressure 5 bar  
 Flow rate 42 l/h ; Pressure 5 bar

### POOL SIZE

MS1 Indoor 4000 – 10000 m<sup>3</sup> ; Outdoor 1000 – 6000 m<sup>3</sup>  
 MS0 Indoor 400 – 2200 m<sup>3</sup> ; Outdoor 300 – 1800 m<sup>3</sup>





# Controllers

A complete range of control instruments for Swimming pool applications with the flexibility to meet every need.

## Kontrol Flow 50

Advanced controller

### MODELS

Flow rate 99999,99 l/sec

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## Kontrol 42

Advanced double parameter controller

### MODELS

pH 0 – 14 ; ORP  $\pm$  1500 mV

pH 0 – 14 ; ORP  $\pm$  1500 mV; Flow rate 99999,99 l/sec

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## Kontrol 100

Professional single parameter controller

### MODELS

pH 0 – 14

ORP  $\pm$  1500 mV

Chlorine and Chlorine dioxide 0 – 0.5/ 1/ 2/ 5/ 10/ 20/200 ppm

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## Kontrol 500

Professional single parameter controller with data logger included

### MODELS

pH 0 – 14

ORP  $\pm$  1500 mV

Chlorine and Chlorine dioxide 0 – 0.5/ 1/ 2/ 5/ 10/ 20/200 ppm

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# Blowers - Side channel compressors

Blower system for Spa and Professional Swimming pool applications.

- We carry a complete line of high quality, quiet yet powerful replacement air blowers for your swimming pools and spas
- Air Blower provide circulation and therapeutic action for both pools and spas.



## BL040

Single impeller, single and 3-Phase

**Flow rate** 145 m<sup>3</sup>/h

**Pressure** up to 200 mbar

**Vacuum** up to -170 mbar

**Noise** 63 dB A



## BL050

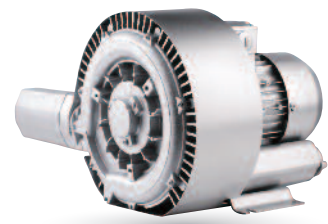
Single impeller  
Single and 3-Phase

**Flow rate** 210 m<sup>3</sup>/h

**Pressure** up to 270 mbar

**Vacuum** up to -220 mbar

**Noise** 64 dB A



## BL820

Double impeller 3-Phase

**Flow rate** 900 m<sup>3</sup>/h

**Pressure** up to 370 mbar

**Vacuum** up to -280 mbar

**Noise** 74 dB A

# Pool Cleaning Station

Specifically designed for intensive cleaning and disinfection of floors and surfaces.

- It avoids water wastage contributing to environmental protection and cost optimization
- Offers effective mixing thanks to assisted calibration
- Works without electricity or compressed air





# Accessories

page 36      Probes

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pH

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ORP

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Chlorine

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Temperature

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Turbidity

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Flow rate

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page 38      **Modular probe holder** (Patented product)  
and **By-Pass probe holders**

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page 39      **Clamp saddles, Cables, Buffer solution pH/ORP and  
5" Housings for filter cartridges**

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page 40      **Filter cartridges, Water meter pulse sender  
and Tanks**

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page 41      **Uncovered tank and Mixers**

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# Accessories

SEKO has developed a full range of accessories to ensure technical installers have every element they need to deliver the most professional installation.

## SPH pH probes

### MODELS

SPH-1 1.5M	Range 2 – 12 pH ; Pressure 0 – 6 bar ; Body Epoxy ; Membrane Glass ; Connections Cable 1.5 m + BNC
SPH-1 6M	Range 2 – 12 pH ; Pressure 0 – 6 bar ; Body Epoxy ; Membrane Glass ; Connections Cable 6 m + BNC
SPH-2	Range 2 – 12 pH ; Pressure 0 – 6 bar ; Body Epoxy ; Membrane Glass ; Connections S8
SPH-3 WW	Range 2 – 12 pH ; Pressure 0 – 6 bar ; Body Glass ; Membrane Glass ; Connections S8



## SRH ORP probes

### MODELS

SRH-1 1.5M	Range $\pm$ 1000 mV ; Pressure 0 – 6 bar ; Body Epoxy ; Membrane Platinum wire ; Connections Cable 1.5 m + BNC
SRH-1 6M	Range $\pm$ 1000 mV ; Pressure 0 – 6 bar ; Body Epoxy ; Membrane Platinum wire ; Connections Cable 6 m + BNC
SPH-1 6M AU	Range $\pm$ 2000 mV ; Pressure 0 – 6 bar ; Body Epoxy ; Membrane Gold ; Connections Cable 6 m + BNC
SRH-3 PT	Range $\pm$ 2000 mV ; Pressure 0 – 6 bar ; Body Glass ; Membrane Platinum wire ; Connections S8



## CL Chlorine potentiostatic probes

Professional chlorine potentiostatic probe, that uses an amperometric cell and membrane cup.

### MODELS

F-CL 2	Range 0 – 10 ppm ; pH 4 – 12 ; Flow rate 30 l/h ; Temperature 45°C ; Pressure 0,5 bar ; Membrane M48 ; Electrolyte ECC1 ; Application fields Organic free chlorine
F-CL 3	Range 0 – 10 ppm ; pH 4 – 11 ; Flow rate 30 l/h ; Temperature 45°C ; Pressure 0,5 bar ; Membrane M48 G ; Electrolyte ECS1 Gel ; Application fields Inorganic free chlorine





## GPC Grounding Pipe Coupling

To obtain the best performance in pH and Redox measurements when using Tekna TPR pump with electrical grounding SEKO recommends using the GPC Series Grounding Pipe.

### MODELS

**GPC-63** DN63 diameter connection to glue tubes to PVC body

**GPC-50** DN50 diameter connection to glue tubes to PVC body

**FEATURES** Pressure 3 bar ; Temperature 50°C



## PT Temperature probes

### MODELS

**PT 100V** Range 0 – 100°C ; Pressure 0 – 7 bar ; Body Pyrex ;  
Connections 5 m 3-wire cable

**PT 100V PG** Range 0 – 100°C ; Pressure 0 – 7 bar ; Body Pyrex ;  
Connections 6 m 3-wire cable

**PT 100 NUT** Range 0 – 100°C ; Pressure 0 – 7 bar ; Body PP ;  
Connections 1 m 2-wire cable

**RNC** Pressure 0 – 7 bar ; Body AISI 304



## S461/LT Turbidimetric probes

The measurement principle is based on the deviation of light produced by suspended particles in the liquid.

**FEATURES** Measure 0,02 – 10 FTU/NTU ; Pressure 0 – 4 bar ; Temperature 0 – 60°C

**BODY** material PVC special optical glass and Viton threaded connection 1" GAS

**PROJECTOR AND SENSORS** Scattering at 90° Light absorption with 10 m cable



## SFW Paddlewheel flow sensor

The SFW paddle wheel flow sensor is designed to be used with every kind of solid-free liquid. The sensor offers highly consistent and repeatable measurements of flow from 0.15 m/s (0.5 ft/s) producing a frequency output signal.

### MODELS

**SFW-1** Size DN 100 – 4"

**SFW-2** Size DN 200 – 8"

**FLUID** Speed Range 0.15 to 8m/s  
[0.5 to 25ft/s]

### MATERIALS

**Sensor body** PVC-C ;

**O-rings** FPM ; **Rotor** ECTFE (Halar®) ;

**Shaft** Ceramic (Al<sub>2</sub>O<sub>3</sub>) ; **Bearings**

Ceramic (Al<sub>2</sub>O<sub>3</sub>) ;

**IP65** protection degree





## PSS-PLEXI Modular probes holder (Patented product)

Professional modular probe holder with amperometric cell for Free Chlorine measurement.

### MODELS

- Flux / pH / ORP
- Flux /pH / Amperometric chlorine
- Flux / pH / ORP / Amperometric chlorine
- Flux /pH / Potentistatic chlorine

Connection In/OUT 8x12 mm (tube)  
 Probes connection 24 mm  
 Hydraulic By-pass  
 Max. Temperature 60°C  
 Max. Pressure 5 bar  
 Material Plexiglas without color



## By-pass probe holder

By-pass probe holder for quick installation pH, ORP and Temperature probes.

**PSS 7 SINGLE** Connection process By-Pass ; No. Probes 1 ; Temperature 0 – 40°C ; Pressure 0 – 6 bar ; Material PP + SAN



## By-pass probe holder

By-pass probe holder for quick installation pH, ORP and Temperature probes.

### MODELS

**PSS 8-A Single** Connection process By-Pass ; No. Probes 3 ; Diameter 12 mm ; Temperature 0 – 40°C ; Pressure 0 – 5 bar ; Material PP + Transparent SAN

**PSS 8-A1 Single** Connection process By-Pass ; No. Probes 3 ; Diameter 12 mm ; Temperature 0 – 40°C ; Pressure 0 – 2 bar ; Material PP + Black PP

**PSS 8-A Single** Connection process By-Pass ; No. Probes 1 ; Diameter 33, 35 or 42 mm ; Temperature 0 – 40°C ; Pressure 0 – 5 bar ; Material PP + Black PP

**PSS 8-A Single** Connection process By-Pass ; No. Probes 1 ; Diameter 24 mm ; Temperature 0 – 40°C ; Pressure 0 – 5 bar ; Material PP + Transparent SAN



## Insertion probe holder

Pressurized probe holder for small residential pools.

**PSS3** Connection process 1/2" G.M. ; Probes connection PG 13,5 or Ø 12 mm ; Temperature 0 – 60°C ; Pressure 0 – 7 bar ; Material PVC

**SPP** Connection process 1" G.F. ; Probes connection PG 13,5 ; Temperature 0 – 60°C ; Pressure 0 – 16 bar ; Material PVC



## Clamp saddles (for paddlewheel flow sensor)

**FOR SFW-1** Size DN 100 – 4" / **FOR SFW-2** Size DN 200 – 8"

**MATERIALS** Body PP (Polypropylene) ; **Gasket** FPM



## CE cables with S7 heads (for probes)

### MODELS

**CE5B** Length 5 mt. ; **Type of cable** Mod. RG58 5 mm ; **Terminal block** Soldered BNC

**CE10B** Length 10 mt. ; **Type of cable** Mod. RG58 5 mm ; **Terminal block** Soldered BNC



## CC15 cables (for paddlewheel flow sensor)

**MODELS** Length 15 mt.

**FEATURES** Resistance 130 Ohm/Km $\pm$ 5% ; **Temperature** -15 – 70°C ; **Capacity Wire/Shield** 150 pF/m ; **Capacity Wire/Wire** 80 pF/m ; **Max Voltage** 49V ; **Nominal section** 8mm<sup>2</sup>



## Certified buffer solutions

Complete buffer solution range for professional calibration.

### MODELS

<b>KIT ST</b>	pH 4.00 and 7.00 ; Quantity 70 cc each pH 4.00 and 7.00 ; ORP 465 mV ; Quantity 70 cc each
<b>ST PH 4</b>	pH 4.00 ; <b>Temperature</b> 20 °C ; Quantity 250 ml
<b>ST PH 7</b>	pH 7.00 ; <b>Temperature</b> 20 °C ; Quantity 250 ml
<b>ST PH 7</b>	pH 9,22 ; <b>Temperature</b> 20 °C ; Quantity 250 ml
<b>ST RX 465</b>	ORP 465 mV ; <b>Temperature</b> 25 °C ; Quantity 250 m



## Housings (for filter cartridges)

**MODELS** Minor 5" **Pressure** up to 8 bar ; **Flow rate** up to 120 L/min ;  
**Temperature** 2 – 40 °C

**MATERIALS** Non-toxic materials ; **Head Loaded** PP ; **IN/OUT threaded inserts** Brass ;  
**Cup** SAN ; **O-Ring** NBR



## Filter cartridges

**MODELS** RLN 20µm Temperature 2 – 40 °C / RLN 80µm Temperature 2 – 40 °C

**MATERIALS** Non-toxic materials ; **Filtering** Nylon (polyamide) ; **External supports** PP ; **Cup** PP ; **Seals** EPDM



## Faucet

**MODELS** Connections IN ½ Gas F – OUT ½ Gas M ; **Material** Grey PVC- UC Body



## TC1 Threaded water meters

Single-jet water meters with pulse sender, dry dial and roller reading. Suitable for cold water up to 30° C.

### MODELS

**25 MM / 1"** 4 pulse/L or 1 pulse/L **Max Flow** (short period) 7 m<sup>3</sup>/h ; **Nominal Flow** 3,5 m<sup>3</sup>/h ; **Min Flow** (accuracy ±5%) 70 l/h

**50 MM / 2"** 4 pulse/L or 1 pulse/L **Max Flow** (short period) 30 m<sup>3</sup>/h ; **Nominal Flow** 15 m<sup>3</sup>/h ; **Min Flow** (accuracy ±5%) 450l/h



## FC Flanged water meters

Woltmann series water meter with dry dial reading and pulse sender. Suitable for cold water up to 30°C.

### MODELS

**DN 80 / 3"** **Max Flow** (short period) 80 m<sup>3</sup>/h ; **Nominal Flow** 40 m<sup>3</sup>/h ; **Min Flow** (accuracy ±5%) 0,7 m<sup>3</sup>/h

**DN 100 / 4"** **Max Flow** (short period) 120 m<sup>3</sup>/h ; **Nominal Flow** 60 m<sup>3</sup>/h ; **Min Flow** (accuracy ±5%) 1,2 m<sup>3</sup>/h



## SER Tanks in polyethylene

Our tanks are designed to be assembled with dosing systems, with mixers and motor driven pumps or solenoid driven dosing pumps. All are made from food-safe polyethylene, and are resistant to almost all chemicals normally encountered.

### MODELS

50	Capacity 50 Litres ;	Height 45,5 cm ;	Ø 40 cm
100	Capacity 100 Litres ;	Height 64 cm ;	Ø 46 cm
250	Capacity 250 Litres ;	Height 87 cm ;	Ø 60 cm
300	Capacity 300 Litres ;	Height 95 cm ;	Ø 67 cm
500	Capacity 500 Litres ;	Height 119 cm ;	Ø 76 cm
1000	Capacity 1000 Litres ;	Height 122 cm ;	Ø 109 cm



## SML Reinforcement

Tank reinforcement made of PVC (20 mm thick) to be used to install mixers and motor driven pumps or solenoid driven dosing pumps on SER series tanks.

### MODELS

100	Tank model SER 100	250	Tank model SER 250
300	Tank model SER 300	500	Tank model SER 500
1000	Tank model SER 1000		



## Uncovered tanks in polyethylene

Designed to contain our SER series tanks. Material food-safe polyethylene.

### MODELS

T150	Tank model SER 100 ;	Height 75,5 cm ;	Ø 51 cm
T300	Tank model SER 250 ;	Height 87,5 cm ;	Ø 67 cm
T400	Tank model SER 300 ;	Height 99,0 cm ;	Ø 72 cm
T800	Tank model SER 500 ;	Height 120 cm ;	Ø 90 cm
T1500	Tank model SER 1000 ;	Height 134 cm ;	Ø 122 cm



## Mixers

Mixers with 0.12 kW single phase electric motors, either slow (200 rpm) or fast (1400 rpm), flange attachment, shaft and propeller in PVC.

### MODELS

#### Slow mixers (200 RPM)

Tank model SER 300 ; Shaft 900 mm ; Propeller 220 mm

Tanks model SER 500 / 1000 ; Shaft 1100 mm ; Propeller 220 mm

#### Fast Mixers (1400 rpm)

Tank model SER 300 ; Shaft 900 mm ; Propeller 220 mm

Tanks model SER 500 / 1000 ; Shaft 1100 mm ; Propeller 220 mm





# Your Choice, Our Commitment

People choose to do business with SEKO for one or more reasons, but ultimately it is their choice, and therefore they merit our commitment. "Our commitment" is total and not only to our customers, but also to each other and the Company's to its employees.

## Vision

**TO BE YOUR PARTNER OF CHOICE FOR  
DOSING SOLUTIONS, GLOBALLY**

SEKO, is a passionate, dedicated Global Family of Professionals. We listen to each of our Partners and are committed to deliver the right solution in the Hygiene, Water Treatment and Industrial Process markets.

## Values

**MUTUAL RESPECT, QUALITY AND  
SPIRIT OF COLLABORATION**

### MUTUAL RESPECT

Mutual Respect because doing business is about being able to generate trust between Customer and Supplier. We'll deliver against our commitments, on time and in a transparent fashion, so you know can plan for your own business needs.

### QUALITY

Quality for SEKO is a 360° reality. It covers not only the design, development, production and delivery of our products and solutions but it runs through the core professionalism of our teams.

### SPIRIT OF COLLABORATION

Spirit of Collaboration is fundamental to our success and SEKO prides itself on how we work as a worldwide team, blending multiple country teams and functions to bring solutions to a Customer request or market need from an idea to the real world in very short time, across our global presence and beyond.





# Your Choice, Our Commitment

In the modern Globalised world, being a privately owned Company has significant benefits especially for our Customers, our Partners. For over 40 years, SEKO has developed a Global organisation able to take the longer view, manage the pressure of the now, and to plan for the long term, delivering true Partnership for our Customers, with transparency and mutual respect for each other.

Whether it's for our reknown flexibility, our attention to detail, the high-quality products, or just the way we do business, we understand that it's Your Choice to do business with us. It is Our Commitment to fulfill your needs wherever you, our Customers are.



For more information about our portfolio, worldwide locations, approvals, certifications, and local representatives, please visit [www.seko.com](http://www.seko.com)

As part of a process of on-going product development, SEKO reserves the right to amend and change specifications without prior notice. Published data may be subject to change.

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The SEKO logo, consisting of the word "seko" in a bold, lowercase, blue sans-serif font. The letters are closely spaced and have a clean, modern appearance.

# seko

## Solutions for **Water & Industry**



Your Choice,  
Our Commitment



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# A Worldwide Group at your service

## Globally Present, Locally Active

Our Global presence ensures that we can support our Customers wherever they are. Supported by teams in over 20 countries, as well as by our accredited Partner Distributor network, we ensure professional, local customer support in over 120 countries, with the added benefit of rapid delivery of goods to meet your needs.

All this backed up and supported by a world-class team of Technical Customer Service, able to provide all the back up or technical support needed. With ISO certificated production sites in Europe, the Americas and Asia, we are close to our customers and fully compliant with all local norms both in terms of our product designs as much as our production facilities.

# How SEKO works for You

From the spark of an idea, through to the delivery of a solution, SEKO is with you all the way

SEKO supports its customers in every phase of a project, from the inception of an idea or request, through design and testing to launch and installation. Our in-house research, design and development teams work closely with the local teams, drawing on customer and market inputs. Then using state-of-the-art technologies to optimize costs and using our own specifically designed test benches to ensure rigorous, robust testing, we ensure a quality solution is delivered quickly to market.

No matter which processes and applications are planned SEKO has a solution in the cleaning and hygiene of kitchens and laundries and surfaces of all types in applications like **Offices and Restaurants, Hospitals and Hotels, Retailers and Schools, Car Washes and Swimming Pools, Cooling Towers, Energy, Food & Beverage, Water & Gas Utilities Potable and Waste Water Treatment.**

## 1 Partnership Philosophy

Being a privately-owned business means that we are here for the long term and can plan projects with and for our Customers, where both parties benefit. It means we can rapidly take decisions to invest our resources to ensure our optimum solutions are delivered.

## 2 Your Business, Our Solutions

Our extensive product range represents a unique combination of design, development and implementation know how. With a wide and ever evolving range of products and ancillaries, we can offer specific and comprehensive solutions for a variety of industrial applications. Our solutions are conceived to fit seamlessly into your operation, optimizing the processes and applications

## 3 Uniquely Positioned

SEKO's 3 business units, Cleaning & Hygiene, Water & Industry and Industrial Processes puts us in a unique position to be able to respond to the widest range of business needs, with a broad range that allows you the Customer to deal with just one company, simple.

# Water Treatment Applications

An ever-evolving set of solutions safeguarding a precious resource

Water is becoming increasingly scarce, and therefore more valuable and as a result since the late '90s, the water treatment market has rapidly grown as have the challenges faced by those who work in the sector and who encounter increasingly complex challenges in water treatment processes, ranging from guaranteeing high water quality to meeting ever more closely monitored regulations.

From the treatment of water for human consumption, to the water used in cooling towers and the use of water in myriad industrial processes, SEKO has and continues to enjoy a strong reputation as a reliable and consistent partner delivering solutions tailored to meet any given need.

Exploiting our market experience, we design, develop, test and manufacture designs that ensure all our solutions and systems deliver:

## Precision and Consistency

From managing the total cost of ownership of a system, whilst guaranteeing accurate measurement of critical water parameters from our Kontrol Series, through to chemically compatible raw materials, chosen for their robustness and durability in our manufacturing process, exemplified by our 5-year guarantee on our diaphragms, to our ATEX certificated pumps, SEKO is offers an optimal result, providing peace of mind and brand security.

## Ease of Use and Installation

As a global company, we are attuned to the differing needs of individual markets. This is why, when we design a new product, we ensure that installation is simple and that we use uniform programming language solutions that are intuitive and easy to understand, in whatever language you speak.

## Operational Efficiency

From the affordability of the range of solutions, through to thoughtful design elements such as an adjustable stroke length, single Wetted parts options, stabilised power supply, multiple model outputs in one pump footprint, base or wall mounting, and a common programming language, SEKO's pumps offer an exceptional mix of affordability and high performance across solenoid and electro-mechanical pump applications.

# Solenoid driven dosing pumps

SEKO's solenoid driven dosing pumps offer a versatile solution for all water treatment applications.



The range is available in both analogue or digital versions. The digital versions contain powerful microprocessors that guarantee dosing accuracy through correct proportional adjustments and are supported by a mechanical stroke setting. As there is only one moving part, drive is virtually wear-free and the pumps require no lubricated bearings or shafts, driving low maintenance and repair costs whilst offering excellent, continuous running characteristics. The multilingual menus make set up simple, quick and flexible. All models are compliant to IP65 classification and feature low level alarms. The ranges are made in a variety of materials that serves to ensure the broadest compatibility with the metered products.

# Tekna

## Solenoid driven dosing pumps

Tekna Series is the range of innovative **wall mounted** solenoid driven dosing pumps that SEKO has designed following many years of experience working with its customers worldwide. These multifunctional solenoid driven dosing pumps maintain outstanding precision and reliability, critical to any customer, characteristics synonymous with the SEKO name.

- Capacity range: 0.4 – 110 l/h, up to 20 bar
- Wetted parts: PVDF, PTFE, EPDM, FPM and Ceramic
- Analogue and digital range with constant or proportional dosage



CE  II 3GD  
Ex ic nA IIB T4 Gc  
Ex tc III CT120°C Dc IP65

Using only premium materials in its manufacture, Tekna's **pump head comes as standard in PVDF** and with a **ceramic ball valve**. These features assure high performance for the chosen applications and improve the **reliability** of the pump assuring the **chemical compatibility of the wetted parts**.

SEKO's **diaphragms are solid PTFE** offering superior life expectancy and are **guaranteed by SEKO for 5 years**, making routine replacement no longer necessary.

Tekna features reduced energy consumption thanks to a **Stabilized Multi Power Supply** 100 - 240 Vac 50/60 Hz.

Tekna is also available in **ATEX standard compliant versions**. This pump offers digital dosing with a constant or proportional flow rate, that is manually adjustable from 0 - 100% and has a level control input.

Tekna ATEX comes as standard with a **pump head in AISI 316**. Optionally available are heads in PVDF, outer casing made in aluminium and with a manual priming valve.

### The range also features

- Constant or proportional dosing according the measured Chlorine, Hydrogen peroxide or Peracetic acid
- PT100 probe input for thermal compensation
- Repetition alarm relay
- Input On/Off for remote control
- 4 – 20 mA output for measure transmission
- Timer function
- ppm dosing
- Batch Mode & On/Off input
- Statistics menu
- Flow sensor
- Level control inputs & alarm output relay
- Password protection
- Proportional dosing using both analogue (4 – 20 mA) and digital inputs



# Tekba

## Solenoid driven dosing pumps

Tekba is a digital solenoid driven dosing pump **with mechanical stroke length regulation**. It represents the best compromise between reliability, dosing precision, and ease of use and has been designed following the positive customer feedback SEKO has received on the Tekna Series. The Tekba Series offers a modern and reliable product, a reference point in the base mounted dosing pump sector.

- Capacity range: 2.5 – 110 l/h, up to 20 bar
- Wetted parts: PVDF, PTFE, EPDM, FPM and Ceramic



Tekba benefits from a **standard PVDF pump head** and **ceramic ball valve**, providing pump longevity and compatibility with all principal water treatment applications.

**Diaphragms** of PTFE offer a superior life expectancy **guaranteed by SEKO for 5 years**, making routine replacement no longer necessary.

Comes with a **Stabilized Multi Power Supply** 100 - 240 Vac 50/60 Hz offering reduced energy consumption.

The solenoid only draws the **required power** to activate the pump, based on the working conditions which brings **improved pump efficiency** as performance is not affected by **power supply fluctuations**.

Programmable via its keypad, the **flow rate can be manually or automatically adjusted**, the latter using input signals, across a range from 0 (pump stop) to 100% of the maximum flow rate.

Both **constant and proportional dosing** is available dependent on model type, with the latter available in both analogue and digital versions.

### The range also features

- Low level alarm
- Proportional dosing using both analogue (4 – 20 mA) and digital inputs

# Maxima

## Solenoid driven dosing pumps

SEKO's range of **base mounted** solenoid driven dosing pumps features **new revolutionary electronic stroke length regulation**. The range offers both constant and manually adjustable, proportional flow rates, which can be based on either an external analogue or digital pulse signal.

- Capacity range: 0.4 – 110 l/h, up to 20 bar
- Wetted parts: PVDF, PTFE, EPDM, FPM and Ceramic
- Analogue and digital range with constant or proportional dosage



Built using premium materials Maxima comes as standard with a **pump head made of PVDF** offering superior chemical compatibility for industrial, waste water treatment and potable water applications.

Advanced design and manufacturing processes means SEKO's **diaphragms are made of pure PTFE**, ensuring compatibility with most chemicals. This also provides a superior life expectancy, which SEKO **guarantees for 5 years**, reducing operating costs.

The use of **ceramic balls** as standard improves the **reliability of the pump and the chemical compatibility** of the wetted parts.

Maxima is supplied with a **Stabilized Multi Power Supply** 100 - 240 Vac 50/60 Hz offering reduced energy consumption.

Designed around a single outer casing, **Maxima offers 5 pumps with common fixing points**, allowing any selection of pumps to be quickly incorporated into **pre-assembled skids**.

### The range also features

- Constant or proportional dosing according the measured Chlorine, Hydrogen peroxide or Peracetic acid
- PT100 probe input for thermal compensation
- Repetition alarm relay
- Input On/Off for remote control
- 4 – 20 mA output for measure transmission
- Timer function
- ppm dosing
- Batch Mode & On/Off input
- Statistics menu
- Flow sensor
- Level control inputs & alarm output relay
- Password protection
- Proportional dosing using both analogue (4 – 20 mA) and digital inputs

# Kompact

## Solenoid driven dosing pumps

Kompact is a simple and reliable range of micro-processor based wall mounted solenoid driven dosing pump. The range has been designed to provide a general solution to the most commonly found daily needs. The range features both constant and proportional flow rates managed through a manually adjustable control dial on the front panel.

- Capacity range: 5 l/h at 8 bar or 3 l/h at 10 bar
- Wetted parts: PVDF-T, PTFE, EPDM, FPM and Ceramic
- Analogue and digital range with constant or proportional dosage



Kompact, even in its basic variant, uses premium materials in its manufacture. The **pump head** comes as **standard in PVDF-T**, but can be **optionally specified in natural PVDF** and comes with a **ceramic ball valve** as standard improving the **reliability of the pump over time** and offers **chemical compatibility of the wetted parts**. SEKO's diaphragms are made of pure solid PTFE offering a superior life expectancy **guaranteed by SEKO for 5 years**, making routine replacement no longer necessary.

Some variants come with a **Stabilized Multi Power Supply 100 - 240 Vac 50/60 Hz** offering **reduced energy consumption**. The solenoid only draws the required power to activate the pump, based on the working conditions which brings improved **pump efficiency** as performance is not affected by **power supply fluctuations**.

### The range also features

- Power-ON led indicator
- Multi colour LED status system
- Level control input
- Timed dosing with a weekly programmable timer
- Dosage in ppm, dosage batch
- Statistics
- Password protection for digital models
- Input ON-OFF (remote control)

# Invikta

## Solenoid driven dosing pumps

The Invikta Series is a series of micro-processor based solenoid driven dosing pumps. While Invikta may be the entry level to SEKO's range of solenoid driven dosing pumps, it still brings with it great reliability, quality construction and flexibility in the number of applications where it can work, such as: OEMs, Swimming Pools, Car Wash, Cooling Towers, Reverse Osmosis Systems and many other applications.

- Capacity range: 0.2 – 5 l/h, up to 7 bar
- Wetted parts: PVDF, PTFE, EPDM, FPM and Ceramic



As with the rest of SEKO's products Invikta, uses premium materials in its manufacture. The **pump head is optionally available in PVDF** and but the **ball valves are ceramic as standard** further enforcing the reliability of the pump and assures the chemical compatibility with all the wetted parts. SEKO's **diaphragms** are made of pure solid PTFE offering a superior life expectancy **guaranteed by SEKO for 5 years**, making routine replacement no longer necessary, making this essential pump a great entry point into the SEKO range.

---

External plastic enclosure is in PP which comes with **IP65 class protection** against jets of water and aggressive environments. A **low-level alarm** can be requested as an optional extra.

---

The range also features

- Wall mounting

# Accessories

## for a perfect installation

The trouble-free operation of a pump depends on the correct pre-installation analysis that is specific for the required task. The consequent choice of accessories and their sizing are very critical for the correct and smooth performance of a reliable system.



Threaded water meters  
TC1 - TH1 - TC0 Series



Flanged water meters  
FC Series



Mixers



Suction Devices



Polyethylene tanks  
SER Series



Reinforcement and Uncovered  
tanks



Flow Sensor



Priming-aid



Pump head with  
automatic  
degassing valve



Adjustables valves HY Series



Injection valves



Multifunction  
valve



Fixed / Adjustable  
backpressure valves







# Motor driven dosing pumps

SEKO's range of motor driven dosing pumps offer high levels of accuracy in dosing and flexibility in use for the most demanding water treatment applications.

SEKO offers an extensive range of dosing pumps with a capacity rating of up to 2065 l/h. The membrane versions can work effectively with the most problematic liquids, while our piston variants offer superior performance, giving the user the opportunity to find the most appropriate solution whatever the application.

# Tork



## Hydraulic double diaphragm dosing pumps with full motion mechanisms

SEKO's long standing experience of designing and producing pumps for heavy duty applications has been utilized for the design of the Tork series. It offers an outstandingly flexible pump configuration allowing for customization of the pump even post installation whilst remaining always easy to maintain.

- Capacity range: up to 2065 l/h, up to 200 bar
- Wetted parts: SS 316L, PP, PVDF and PTFE
- Certified ATEX 94/4/CE II 2 G E IIB T4 (for Zone 1)



Designed to produce **low noise emissions** and to minimize power consumption. Each mechanism comes complete with an internal gearbox; pumps with different speeds (strokes/min) can therefore be joined, allowing for **greater flexibility** in selecting the pumps themselves. Its high precision stroke adjustment, to an **accuracy level  $\pm 1\%$** , can be **both manually or electrically adjusted** using SEKO designed **electrical actuators**.

Other features include a **zero-leakage profile** offering watertight construction for **dosing toxic, corrosive and other hazardous liquids**; its **double diaphragm protection system** immediately signals the anomaly whilst not stopping the pump from working, thereby **preventing immediate downtime**.

Manages **solid suspensions** thanks to the diaphragm not requiring **perforated shields** on the process side, which allows liquids containing solid suspensions to be pumped.

### The range also features

- Mechanical refilling system
- PTFE diaphragms compatible with a vast assortment of liquids
- Flow rate modularity
- Venting system
- Pressure relief valve



# Stark



## Hydraulic diaphragm dosing pumps with full motion mechanisms

The Stark series are hydraulic diaphragm dosing pumps suitable for applications that require very high levels of precision, manufactured with materials that ensure compatibility with the widest range of liquid dosing application.

- Capacity range: up to 660 l/h, up to 124 bar
- Wetted parts: SS 316L, PP, PVDF and PVC
- Certified ATEX 94/4/CE II 2 G E IIB T4 (for Zone 1)



Conceived to produce **low noise emissions** and to minimize power consumption. **High precision stroke adjustment**, both manual and via electric actuator.

Other design features include a **zero-leakage profile** offering watertight construction for **dosing toxic, corrosive and other hazardous liquids**; it also offers **protection against pollutants** which could contaminate the liquid that is being pumped.

The **flow rate adjustment** uses SEKO's **AKTUA system** that replaces the pump's manual flow adjustment device with an automatic system that offers **remote management**.

A mechanical refilling system maintains a constant hydraulic fluid level, thereby **guaranteeing maximum precision and repeatability**. It also helps manage the eventual deformation of diaphragm thereby increasing its lifespan and **reducing operational costs**.

The range also features

- PTFE diaphragms compatible with a vast assortment of liquids
- Cartridge valves for maximum dosing precision.
- Venting system
- Pressure relief valve

# Kosmo

## Mechanical-return diaphragm dosing pump

SEKO's newest pump, Kosmo is a range of electric motor-driven pumps with mechanical diaphragm liquid ends and mechanical return aimed at delivering exceptional performance across a wide range of flow and pressure environments.

- Capacity range: up to 2300 l/h at up to 12 bar (10 bar for 2300 l/h)
- Wetted parts: SS 316L and PVDF



Range has two principal models MM1 and MM2 designed to be compact and robust. Offers excellent performance across a wide range of **flow rates as low as 3.5 l/h up to 2300 l/h**. This makes Kosmo ideal for **low discharge pressures** – for example in the water treatment industry, but also in the food industry in clean-in-place applications.

Designed using materials chosen for their robustness and conceived to work for **long periods of continuous operation** thanks to the benefits derived from its **variable eccentric system**.

Kosmo can effectively be used in any of the following applications: **potable water treatment** (injection of coagulants, flocculating agents, sodium hypochlorite, lime slurry, acid, bases, caustic soda, activated carbon, etc.); **domestic or industrial waste water treatment**, boiler feed water, **reverse osmosis**, **cooling water**; **chemical treatment**, electrolytic (electro-plating) treatments: addition of degreasing agents, cleaning agents, nickel electroplating and chemical nickel plating, copper plating, tinning; etc.

The range also features

- Broad range of chemical compatible materials
- Permanent lubrication of mechanism
- Low noise operation
- Protection degree IP55



# Spring

## Plunger piston and mechanical diaphragm dosing pumps

Motor driven dosing pumps need to be robust, reliable and able to run on their own without supervision. SEKO's entry level offering in motor driven pumps is the Spring series. Three sizes of mechanism and a wide selection of models with varying performance profiles allow the user to find the appropriate solution for almost any application, offering accurate dosing even under fluctuating pressure conditions.

- Capacity range: up to 1200 l/h, up to 20 bar
- Wetted parts: SS 316L, PVC, PP and PVDF

Features a **spring return mechanism** in an **aluminium housing**. These pumps always deliver **robust, affordable and efficient power**. They offer **flexibility in stroke length and motor speed** which are separately controllable. Thanks to the mechanically actuated diaphragms, SEKO's Spring pumps can be used almost universally in **low pressure applications** with the additional benefit of being a **zero-leakage solution**.

### The range also features

- Piston available as standard in SS316 or ceramic
- Mechanical diaphragm in PTFE
- Every pump can be equipped with an electric actuator which accepts a 4 – 20 mA signal

## Spring PS1 Plunger piston dosing pumps

The PS1 series piston dosing pump offers a flexibility of choice combining different pump head and engine power options that ensures a solution for almost any eventuality or application.

The PS1 Series' performance achieves **flow levels between 1.5 and 304 l/h at pressures up to 20 bar**.

Each model can be **configured with 2 different stroke rates**.

**Stroke lengths** can be set automatically or manually using the **AKTUA Kit** which uses a 4 - 20 mA signal.



Spring PS1 is supplied with a **3 phase electric motor** with **IP55 protection**. Optionally available on request is a single-phase motor.

The **PS1 12 VDC** range achieves **flow rates between 34 and 350 l/h at up to 20 bar**.

## Spring PS2 Plunger piston dosing pumps

The PS2 series piston dosing pump also offers multiple combinations of pump heads and motor power that enables it to adapt to a large number of applications.

The PS2 achieves **flow rates of between 40 and 1000 l/h** with **a pressure up to 20 bar**. Whilst having similar features with the PS1 Series, PS2 Series is also flexible, being able to **alter its hydraulic characteristics** thanks to a bigger size of piston and longer stroke length, which therefore **alters the flow rate and power**.

Like PS1, PS2 pumps have a spring-loaded mechanism in an aluminium housing, and each model can be configured with **2 different stroke rates**.



**Stroke lengths** can be set automatically or manually using the **AKTUA Kit** which uses a 4 - 20 mA signal.

PS 2 pumps are supplied as standard with a **3 phase electric motor**, though a **single-phase** is available on request, both with **IP55 protection**.

## Spring PS2 HP Plunger piston dosing pumps

The PS2 series of High Pressure Piston dosing pumps can adapt to a large number of applications.

The PS2 High Pressure Series covers a **flow rate of 0.25 to 12 l / h** with a **back pressure of 100 bar**. Like other variants in the Spring Pump series, PS2-HP has a spring return mechanism in an aluminium housing.

This model has **2 stroke rates**.

**Stroke lengths** can be set automatically or manually using the **AKTUA Kit** which uses a 4 - 20 mA signal.



They can be powered by a **3-phase motor** which has an **IP55 electrical protection** classification.

For use in applications requiring an economic and practical solution for **dosing small amounts of product with at high pressure**, for example in a boiler at **up to 100 bar**.

## Spring MS1 Mechanical diaphragm dosing pumps

Mechanical diaphragm dosing pumps MS1 series offer several combinations of pump heads able to adapt to a large number of applications.

The MS1 Series achieves **flow rates between 5.5 and 1200 l/h with a pressure of up to 16 bar**. Multiple combinations of pump head and motor power provide options in selection of the **optimal combination** most suited to the specific application.

The MS1 pumps have a spring return mechanism in a single aluminium housing. Each model works with **3 different stroke rates**.

**Stroke lengths** can be set automatically or manually using the **AKTUA Kit** which uses a 4 - 20 mA signal.



In addition, Spring MS1 pumps can be supplied with a **single or three-phase electric motor with IP55 protection**.

The **MS1 12 VDC** range achieves **flow rates between 23 and 620 l/h at up to 16 bar**.

## Spring MSV Mechanical diaphragm dosing pumps

MSV is a new range of diaphragm dosing pump, designed to ensure reliable and effective long-term transfer of fluids. MSV features motorized mechanisms with high performance, high efficiency motors that are mounted vertically in a PP casing.

Reinforced by its **double camshaft** mechanical structure, the pump offers **high levels of stability** while remaining a **low noise unit** with exceptionally accurate flow rates.

Adaptable to a wide range of uses, Spring MSV provides **high dosing accuracy** across a wide variety of **liquids, sludge and chemicals**.



With **flow rates between 10 and 120 l/h** MSV can also be adjusted by regulating the stroke length.

# Accessories

## for a perfect installation

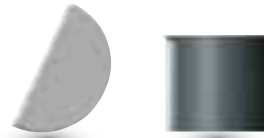
The trouble-free operation of a pump depends on the correct pre-installation analysis that is specific for the required task. The consequent choice of accessories and their sizing are very critical for the correct and smooth performance of a reliable system.



Mixers



Polyethylene tanks  
SER Series



Reinforcement and Uncovered  
tanks



Calibration pots



Pulsation dampers



Adjustable  
Backpressure valves



Overpressure valves



Backpressure valves



# Peristaltic dosing pumps

Combining ease of use with superior technology, SEKO's peristaltic range ideally showcases the company's product offering to the Water Treatment and Industrial process markets.

The extensive range provides solutions for every type of Water & Industry process. Features include Stepper motors, that offer the ultimate in dosing accuracy and versatility for use in a wide range of potential applications. The range also provides advanced solutions for the OEM market.



# Kronos

## Peristaltic dosing pumps

The Kronos Series of peristaltic dosing pumps is the result of SEKO's dedication to innovation in its product range and SEKO's passion for delivering dosing systems that meet the technical requirements of increasingly complex and large customers.

- Capacity range: 2 – 25 l/h, up to 4 bar
- Roll PTFE body, Enclosure box IP65
- Standard installation kit includes: Ceramic foot filter, FPM non return valve, PVC and PE tubes



Kronos' superior design principles allied to the use of a high quality **stepper motors** along with **innovative electronic control systems** brings accuracy of **dosing down to 0.01%** of its maximum flow rate. The dosing function is particularly accurate and reliable over time, while the stepper motor offers an **extended lifetime** and a **superior quietness in operation (<35dB)**.

**Digital programming of the parameters** via keyboard and display ensures a **fast set up** and final check on the programming data. The **easy and intuitive menu** enables a simple setting of the various options without the risk of forgetting anything. The internal menu also allows users to check the **statistics on the life of the tube and the operating life of the pump**

All Kronos pumps can use a **wide range of membrane tubes** ensuring perfect **chemical compatibility** without any sacrifice in the mechanical resistance of the tube. Currently the range of available Sekotubes includes **Santoprene, SekoBril, SekoFlex and SekoKem**.

New to the range are several new tubes, fully tested in our laboratories such as **SekoExtra, SekoMed and SekoFort**, this last one being specifically aimed at use with mineral oil, HP-San for high pressure, Sekolast and Pharmapure tubes for high chemical compatibility.

Kronos is an ideal range for use in Water treatment applications. Satisfied customers can already be found in the following areas: **drinking, water applications, irrigation systems, cooling tower applications, swimming pools, flocculent dosing systems, priming of chemical products that release gas easily.**

The range also features

- Anti-scaling proportional dosing via an external pulse signal
- Open drain valve for blow down function via a conductivity feedback measure
- Software settings that disable drain action after chemical dosing

A photograph of a water treatment plant. In the foreground, there are large blue pipes and a large blue spherical tank. In the background, there is a tall white cylindrical tank and some greenery under a clear blue sky.

# Controllers & Sensors

Ensuring that water quality is always at its best, balancing the variables that impact it, demands measuring and dosing systems with the highest accuracy.

SEKO's Controllers and Sensors are built with precision in mind and can function in both internal and external environments. Specifically conceived to fit a wide range of individual applications, they are available in different performance classes ensuring easy integration into every process environment.

# Kontrol

## Single, double, multi parameter controllers

The Kontrol Range represents SEKO's most advanced solution for the comprehensive monitoring of multiple water parameters. The result of SEKO's dedication to innovation and a passion for measurement solutions and systems to meet increasingly complex and large customers' technical requirements, Kontrol provides high levels of measuring accuracy and control with simple functionality.

- The range enables the operator to monitor key values to suit almost any application covering the following parameters: pH, ORP, Conductivity, Chlorine, Dissolved oxygen, Turbidity, Suspend Solid, Peracetic Acid, Ozone, Bromine, Peroxide, Flow rate and Temperature.



All models in the Kontrol Range have a standard calibration routine (or wizard calibration) to help end users through probe maintenance operations. Moreover, the controller is equipped with programmes that assist the installer when it comes to the management and replacement of the measurement electrodes, thanks to a clever "electrode quality" control function.

All models also benefit from having a traditional compensation measures providing the extra assurances on the accuracy and repeatability of measurements taken.

### The range also features

- All Kontrol units are CE/UL certificated ensuring full health and safety compliance
- Easy to install and easy to maintain the electronic circuits
- High contrast image graphic display, and easy to read, self-explanatory icons
- Variable display backlighting allows the user to quickly understand the active operating mode

## Kontrol 800 Tech Multi-parameter controller

The Kontrol 800 Tech series are professional controllers designed for advanced water treatment applications. All models are equipped with analogue and digital outputs that can be set by the end user via software.

Equipped with programmes that assist the installer in the management, replacement of the measurement electrodes, using the **"electrode quality" control function**. The **data logger function** helps **monetarise measurements** supported by graphic line feedback.

Equipped with **independent and proportional control outputs**, 4 programmable frequency and 4 4 - 20 mA current outputs, an **RS485 serial port with MODBUS protocol**, 6 relay outputs, probe quality control and is enabled **for data collection**.



**Graphic displays** ensures a **fast set up** and final check of the programming data, while the **easy menu** enables a simple set up of the various options without the risk of forgetting anything.

Internal menu enables monitoring of statistics on the probe life and the controller operation.

## Kontrol 800 Multi-parameter controller

Kontrol 800 are user-friendly controllers designed for simple and advanced water treatment applications requiring simultaneous control of a number of chemical parameters. All models are equipped with analogue and digital outputs that can be set by the end user via software.

Equipped with **independent and proportional control outputs**, 2 programmable frequency and 2 4 - 20 mA current outputs, an RS485 serial port with **MODBUS protocol**, 6 relay outputs, probe quality control and is enabled for **data collection**.

The alphanumeric display ensures **fast set up** and final check on the programming data. The **easy to use menu** enables a simple setting of the various options without the risk of forgetting anything and the **"electrode quality" function** allows the user to ensure optimum performance of the equipment.



The internal menu allows users to check the statistics on the **life of the probes and the operating life of the controller** while the data logger function provides information that helps **monetise the results** from the measurements.



## Kontrol 502

### Dual-parameter controller

The Kontrol 502 series are professional controllers designed for advanced high-end water treatment applications. All models are equipped with analogue and digital outputs that can be set by the end user via software, who has full programming autonomy.

Kontrol 502 has **independent and proportional control outputs** with active PID, an RS485 serial port with **MODBUS protocol**, an optional USB port, a probe quality control and a **comprehensive data collection capability**.

The controller assists the installer in the management, replacement of the measurement electrodes, by means of the **"electrode quality" control function**.



Features a **back-wash probe function** and a **remote alarm feature**, using dedicated relays.

**Data logging** functions allow users and management to **accurately track the performance** of their systems in use.

## Kontrol 500

### Single-parameter controller

Kontrol 500 are professional controllers designed for advanced water treatment applications. All models are equipped with analogue and digital outputs that can be set by the end user via software with full programming authority for the user.

The controllers are equipped with **proportional and independent control outputs with PID enabled**, an RS485 serial port with MODBUS protocol, a USB port on demand, a quality control of the probe, diverted outputs and a comprehensive data collection capability.

A **Data logger function** is included to monetarized the measure and give a graphic line feedback.



Features a **back-wash probe function** and a **remote alarm feature**, using dedicated relays.

Data logging functions allow users and management to accurately **track the performance** of their systems in use.

## Kontrol 100

### Single-parameter controller

Advanced controllers designed for high-end applications. All models are equipped with analogue and digital outputs that can be programmed by the end user via software providing the user has a great autonomy in programming.

Kontrol 100 instruments assist the installer in managing and replacing the measuring electrodes, using the **"electrode quality" function**.

To facilitate further **legibility during programming and data reading**, the **reverse display function** allows the user to reverse the writing on the screen to obtain a high contrast.



The **multi-colour backlit function, with four different colors**, makes it easy to interpret what function the controller is in even in poor light conditions.

Kontrol 100 features a **Modbus RTU/ASCII protocol** that allows remote control interface using a **RS485 port**, making using the system for **larger multi-site complexes** easier and more efficient.

## Kontrol 50

### Single-parameter controller

Kontrol 50 are controllers designed for applications covering multiple parameters. All models are equipped with analogue and digital outputs that can be set by the end user via software.

The controller is equipped with programmes that **assist the installer** in the management and replacement of the measurement electrodes, using the **"electrode quality" control function**.

The **easy-to-use set up menu** makes verification of the dosing and control system simple and quick while high quality probes gives **high precision measurements**.



**Reading data from the Kontrol 50 is easy** thanks to its **real-time status bar** and the clear measurement screen in the centre of the digital display.

As with all Kontrol systems, it benefits from a **wizard calibration system** to facilitate daily maintenance tasks and a multilingual menu to ensure end users ability to use and interpret the system

## Kontrol 42

### Dual-parameter controller

Kontrol 42 instruments are double parameter function controllers designed for simple water treatment applications. These very user-friendly systems combine advanced performance with robust design.

A technologically advanced controller that enables precise adjustments, **its easy-to-use programming menu** makes verification of the dosing and control system simple and quick while the quality of the probes used **ensure high resolution measurements.**



Reading the data from the Kontrol 42 is made easy thanks to **its real time status bar and from the clear measurement display** in the centre of the digital display.

As with all Kontrol systems, it benefits from a **multilingual menu** to ensure end users ability to use and interpret the system.

## Kontrol 40

### Single-parameter controller

Kontrol 40 is a single parameter controller that uses the latest technology to accurately and reliably monitor pH, Redox (ORP), flow, potentiostatic chlorine and conductivity in all principal water treatment applications.

The innovative electronic control board used in Kontrol 40, allows full exploitation of its capabilities resulting in improved **accuracy and consistent repeatability of measurement.**

**Its easy-to-use programming menu** makes verification of the dosing and control system simple and quick while the quality of the probes used **ensure high resolution measurements.**



Reading the data from the Kontrol 40 is made easy thanks to **its real time status bar and from the clear measurement display** in the centre of the digital display.

As with all Kontrol systems, it benefits from a **multilingual menu** to ensure end users ability to use and interpret the system.

# Sensor and Probes

## pH, ORP, Electrical and Inductive Conductivity, Chlorine and disinfectants, Dissolved Oxygen, Turbidity and Flow

Monitoring a limit value or building a closed control circuit is easy with our sensors – in an enormous range of measuring applications. The measured values are delivered in real time and can be flexibly connected to the various process interfaces via bypass, immersion or installed fittings

Our product line provides a wide range of sensors for different measuring tasks. The field of application covers everything from simpler water treatment tasks to industrial process waters with more stringent requirements in terms of temperature, pressure, contamination tolerance and chemical resistance.



**pH measurement** is based on the use of a pH sensitive glass electrode, a reference electrode and a temperature element to develop a potential proportional to the pH of the solution.

The reference electrode is designed to maintain a constant potential at any given temperature, and serves to complete the pH measuring circuit within the solution.

- For every application up to 130 °C and 16 bar
- Virtually maintenance-free
- Highly accurate with pressurizable liquid electrolyte
- Open hole, pellon or ceramic diaphragms



**ORP** is a potentiometric measurement of the oxidizing/reducing power of a liquid. An ORP measuring electrode is similar to a pH measuring electrode, except it is normally constructed of a noble metal (Platinum or Gold).

From a water treatment perspective, ORP measurements are used often to control disinfection with chlorine and chlorine dioxide.

- For every application up to 130 °C and 16 bar
- Virtually maintenance-free
- Highly accurate with pressurizable liquid electrolyte
- Open hole, pellon or ceramic diaphragms





EC

The **conductive** principle sees an alternating current applied between sensor poles and the resulting current, dependent on the concentration of ions and on the length and area of the solution through which the current flows, is measured.

The current path is defined by the sensor geometry, or cell constant, which has units of 1/cm (length/area).

- From ultrapure water to high concentrated process media
- Cost-efficient for water / wastewater applications
- Conductive sensors for maintenance free applications



IC

The **inductive** principle sees the field coil of the sensor stimulated by a sinusoidal voltage. The current field in the fluid, that depends on its conductivity, generates a voltage in the receiver coil of the sensor.

The measure of this voltage and the cell constant give the right value of conductivity of the fluid.

- From ultrapure water to high concentrated process media
- Cost-efficient for water / wastewater applications
- Inductive sensors for maintenance free applications



DO

**Dissolved Oxygen measuring sensor** comes with an integrated temperature probe. The measuring technique is based on the following optical principle: a diode emits a blue light towards a support on which a fluorescent substrate is applied.

The substrate reacts by emitting initially a red light (luminescence), then returns to its initial state. The intensity of the produced red light and the return rate to the initial state are related to the present dissolved oxygen concentration.

- Innovative method gives accurate measurements over time, eliminating system calibration
- Maintenance required only every 2 years
- Suitable for variety of applications including where measuring liquid is almost stationary





The **paddle wheel sensor** consists of a freely rotating wheel with magnets which is perpendicular to the flow. As the magnets in the blades spin past the Hall sensor, a frequency and voltage signal which is proportional to the flow rate is generated.

According to Faraday's Law the voltage induced by the magmeter is proportional to the velocity of the conductor fluid. In the **SFWE magmeter** the physical principle at work is electromagnetic induction.

- Low cost solution with high flow system accuracy
- No pressure drop making it ideal for gravity flows
- Reduced dependence on flow, substances and film-forming media
- Magmeter without moving parts for measurement of conductive and homogeneous dirty media



The standard **potentiostatic and amperometric probe** design consists of two electrodes (anode and cathode) that measure a change in current caused by the chemical reduction of hypochlorous acid at the cathode. The current that flows because of this reduction is proportional to the chlorine concentration.

The sensor contains a platinum and a copper electrode. With the sample water acting as the electrolyte, galvanic potential develops between the two electrodes. With stable conditions of pH and water flow, the sensor current increases proportionally to the free chlorine content.

- Different membranes available to measure range of chlorine ions
- Only 30 seconds to achieve an accurate reading
- Reduced dependence on flow, substances and film-forming media
- Wide range of measure up to 200 ppm
- Complete collection range of parameter measure as: Chlorine, Peracetic acid, Ozone, Bromine, Peroxide



**Turbidity and Suspended Solid** is the cloudiness of a fluid caused by large numbers of individual particles. SEKO's probes are used to determine high and very high concentrations of suspended solids up to 150 g/l. They offer reliable measurement thanks to an infrared optical measurement at 880 nm.

Their dual pulsed light beam system compensates for drift from any optical components, while digitized signals inside the probe body reduce the possibility of electrical interference in the signal transmission.

- Measurement is performed by using a 90° scattered light method compliant with ISO 7027 / EN 27027
- Medium is in direct contact with the sensors to make the unit virtually independent from humidity and condensate water
- No need to replace silica gel for easier and cheaper maintenance



# Accessories

Probeholders, power supply, temperature sensor, cables, buffer solutions and probe accessories



Probes holder



Pressurized probes holder



Outflow probes holder



By-Pass probes holder



Immersion probe holder



Power Supply



Temperature sensor



Probe cable



Certified buffer solutions



Signal amplifiers for pH and ORP probes only



## Metering, measuring and control systems

At the core of any operation where water quality is key, the ability to measure and control the quality quickly, accurately and with a reassurance constancy is paramount.

SEKO's measuring systems are built with precision in mind and that can function in both internal and external environments, specifically conceived to fit individual applications. Available in different performance classes they can be integrated into every process environment.

# Metering, measuring and control systems

## Panel-mounted and cabinet

When choosing to install a new piece of measuring equipment in your operation, the ability to simply “plug and play” is a key benefit, saving time and money and potential risks of selecting the incorrect or incompatible individual components. SEKO, renowned for its attention to offering practical and pragmatic designs, offers a range of preassembled panels that deliver outstanding results for most commonly found water treatment applications.

- SEKO's Kontrol Range delivers a modular technical solution for the Water Treatment & Industrial Process markets.
- The multi-parameter controllers are suitable for use in the following applications Municipal Water Treatment, Drinking Water, Cooling Towers, Swimming Pools, Waste Water Treatment.



The range also features a

- **Measuring and control panels** that offer an easy access “plug and play” solutions that make servicing and alterations simple. Available in the following models: Kontrol 800 Panel, Kontrol 800 CT Panel, ECS 500 Panel, Kontrol 500 Panel, Kontrol 40 Panel
- **Metering, measuring and control panels** that provide flexible, easy to use solutions, with simple maintenance using dosing pumps with built-in controllers. Available in the following models: Kronos panel, Tekna panel
- **Kontrol Guard Tech measuring and control cabinet** is a tamper proof enclosure containing instrumentation and manifold for measurement and control



## Kontrol 800 Panel

### Panel-mounted multi-parameter

The SEKO range of bespoke cooling tower panels are designed to provide a simple and effective way of automating the control of chemicals in cooling tower applications.

These systems comply with the requirements for dosing to control **microbiological growth**, **prevent corrosion** and bleed off the tower as required.

A selection of pump options provides maximum flexibility to cater for all **Cooling Tower chemical options**.



These **plug and play systems** save valuable installation time and together with **user friendly set up menu and easy maintenance**, the SEKO Cooling Tower systems provide an ideal solution to dosing control.

## Kontrol 800 CT Panel

### Panel-mounted multi-parameter

The Kontrol panel 800 comprises 2 key elements and is designed with SEKO's usual attention to ease of use and simple to perform set up and maintenance regime that requires little technical knowledge.

The Kontrol 800 controller is a **dedicated multi-parameter controller** for complex applications that checks multiple chemical parameters simultaneously.

It comes with an **alphanumeric display (4 lines x 20 characters)**, multi-language menus for easy operator interface and provides for remote control interface via a **serial port RS485 by Modbus RTU/ASCII protocol**.



Its universal power supply 100 – 240 Vac 50/60 Hz 20W delivers high technical performance and the **galvanized electrical and measuring insulation** ensures reliability.

The second is a **pipng hydraulic PSS-Tube probe holder with Volumetric Flow-meter**, featuring a range **from 300 to 3000 litres/hour**, with an external reed sensor for proper flow rate.

## ECS 500 Panel

### Panel-mounted multi-parameter

The ECS 500 panel helps to prevent legionella-related risks. The panel analyzes the water in a circuit, measures the concentration of free chlorine, and its regulation in a closed circuit

It is a **plug and play panel**, ready to use as soon as its installed and comes with several possible combinations for **flexible solutions** according to your needs.

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**Multiparameter instrument** with **data recording** and direct reading of the measured parameters, with a **potentiostatic probe**.

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Version dedicated to the **measurement of chlorine** with a potentiostatic probe.

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Version dedicated to the measurement of **chlorine**, with a **probe and ORP sensor**.

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## Kontrol Guard Tech

### Cabinet multi-parameter

The new Kontrol Guard Tech unit, with its 5" digital graphic display, combines the traditional elements of control and dispensing with a totally digital control system, which facilitates the setting and monitoring of the various parameters, depending on the application, using and comparing historic values to identify or analyze any errors.

The Kontrol 800 Tech controller is a **dedicated multi-parameter controller** for complex applications that checks multiple chemical parameters simultaneously.

---

It comes with an **graphic display 5" (240x128 pixel)**, multi-language menus for easy operator interface. With the **high-contrast image** of the graphic display and the **easy-to-read**, explicit icons that are used, the operator is guided step-by-step through the applications. To improve the readability of the screen, the controller has several screen settings.

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It provides for remote control interface via a **serial port RS485** by Modbus RTU/ASCII protocol.

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Its universal power supply 100 – 240 Vac 50/60 Hz 20W delivers high technical performance and the **galvanized electrical and measuring insulation** ensures reliability.

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**New box design** for increased controller protection.

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## Multi-parameter photometric system

SEKO's products offer very high precision and reproducible analysis results with minimum time and effort.

SEKO's multi-parameter control unit provides for real time determination of Free Chlorine (Photometric System), pH, Redox and Temperature. The system is equipped with a graphic display subdivided into areas for simultaneous display of all available measurements.

# Photometer System

## Multi-parameter analyser

Over the last decades, Photometry has developed as an essential method of analysis because it enables the “quantitative” determination of both organic and inorganic compounds. The technique uses the colorimetric methods characteristic of certain analytes, i.e. the properties of certain chemical reagents to develop colour with an intensity proportional to the concentration of a given substance, at a particular wavelength of the spectrum visible between the UV and IR.

Compared to UV or IR spectrophotometry, the colorimetric technique has the extraordinary advantage of relying on well-defined linear reactions and with few well-known interfering substances. The Palin method employs the interactive DPD principle to determine the concentration of certain oxidants such as: Free Chlorine, Total Chlorine, Chlorine Dioxide, Ozone, Peracetic Acid, Bromine, Permanganate etc. The DPD reacts with the oxidant present in the water, producing almost instantly a pink colour, making sure that all those factors that may affect measurement (pH,  $\mu\text{S}$ ,  $^{\circ}\text{C}$ , organic matter etc.) have no influence on the analytical methodology

- The range enables the operator to monitor key values to suit almost any application covering the following parameters: pH, ORP, Free and Total Chlorine; Combined Chlorine by software



SEKO's products offer very high precision and reproducible analysis results with minimum time and effort. Its multi-parameter control unit provides for real time **determination of Free chlorine (Photometric System), pH, Redox and Temperature.**

The system is equipped with a **graphic display** subdivided into areas for **simultaneous display of all available measurements.**

### The range also features

- Multi parameter with high accuracy measure and integrated data logger
- Comes with RS485 port with ModBus RTU protocol for full compatibility remote data logging interface
- Chlorine Photometric chamber



A close-up photograph of water flowing from a blue pipe into a pool of water. The water is splashing and creating ripples, with a blurred green background. The pipe is on the left side of the frame, and the water is on the right.

# Flow meters

Electromagnetic flow meters are used to measure the flow rate of conductive fluids and waste water.

The measurement is independent of the density, viscosity, temperature and pressure of the fluid. The conductivity of the fluid must be greater than  $5\mu\text{S}/\text{cm}$ . The measuring tube must not be crossed by fluids carrying solid bodies of high dimension that cannot be considered suspended solids. Load losses are absent and straight stretches reduced upstream and downstream of the instrument are necessary.

The converter has been designed with the purpose of meeting all the requirements of modern water management systems. It supports extended functions which make it perfectly suitable for measuring and billing in civil, industrial and agricultural sector and for flow measurement in residual water treatment.



# SMAG 103

## Flow Meters

Electromagnetic flow meters are used to measure the flow rate of conductive fluids and waste water. The measurement is independent of the density, viscosity, temperature and pressure of the fluid. The conductivity of the fluid must be greater than  $5\mu\text{S}/\text{cm}$ .

- Size : DN15 – DN2000 (Flange UNI 2223) / DN25 – DN100 (Triclamp or DIN11851) / DN3 – DN20 (Thread Gas or NPT)
- Pressure : PN10 – PN64 / PN10 – PN40 / PN16
- Body Material : Carbon Steel ; SS 304 / Electrodes Material : Hastelloy C ; SS 316 L




Principle applications include:

- Sludge and water treatment
- Control of civil and industrial wastes
- Measurement of industrial process water
- Control of the chemical dosage
- Energy industry: generation and distribution
- Extraction industries: quarries, mines

## SMAG 103 Converter controller

The converter has been designed to meet **all the requirements of modern water management systems**. It supports extended functions which make it perfectly **suitable for measuring and billing** in civil, industrial and agricultural sector and for flow measurement in residual water treatment.





# Air operated double diaphragm pumps

SEKO's range of air operated double diaphragm pumps offers versatility and reliability of operation for all applications

Diaphragm pump technology is one of the oldest pumping technologies in the world but technological advances have transformed them into a popular affordable, easy to maintain, simple to install and operate pump, able to handle a variety of product viscosities. They also feature a seal-less design, self-priming and dry-running capabilities.

# Duotek



## AODD

Air operated double diaphragm pumps have long been recognized as the most flexible pumps of the industry for handling difficult liquids at relatively low pressures and flows. The range of applications is virtually limitless. SEKO AODD pumps come in many sizes and choices of materials of construction. Almost every type of liquid from highly corrosive acids through high viscosity paints and adhesives, to food and drink products can be pumped. The range covers everything from FDA (EC 1935/2004) Compliant pumps to ATEX Zone 1 and 2 versions.

- Capacity range: from 8 l/min to 1050 l/min, up to 8 bar
- Construction materials : PP, PVDF, SS 316, Aluminium, POMc
- Duotek FOOD realized in SS 316 electro-polished
- Duotek ATEX realized in PP+CF, PVDF+CF, Aluminium, AISI 316, POMc+CF



The range is **100% wet tested** after final assembly including deadheading, priming, and sealing. Thanks to its seal-less design, SEKO AODD pump can **dry-run without damaging the pump or system**. The pump can be **fully submerged** according to fluid compatibility .

DuoTek **FOOD pneumatic double diaphragm pumps**, have been designed for use in the transfer of products used in the **food industry**. The pumps double-diaphragm manufactured with materials that **conform to FDA (EC 1935/2004)**; the parts in contact with the liquid are polished by electrolysis and the **SS316 and PTFE** are both suitable for food use. These pumps can convey very high liquids viscosity and at **temperatures up to 95 °**.

The range also features

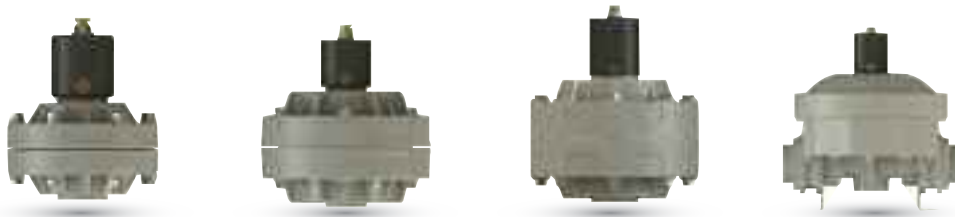
- Portable and compact for multi-location use, optionally with trolley
- Self-priming dry up to 6 meters: works in suction lift applications
- All bolted construction: it provides maximum leak resistance and safety
- Conductive plastic pumps available

# Dampers



The active pulsation damper is the most efficient way to remove pressure variations on the discharge of the pump. Pulsation dampers work actively with compressed air and a diaphragm, automatically setting the correct pressure to minimize the pulsations. Pulsation dampers require minimum maintenance and are, subject to the requirements of the application, available in the same housing and diaphragm materials as the pump.

- Construction materials : PP, PVDF, Aluminium, AISI 316
- ATEX certifications for Zone 1 and 2 in all versions



# Accessories

for a perfect installation



Air regulation kit



Switch valves



Stroke counter



Diaphragm Failure  
Detection



Pneumatic or electronic  
batch control



Basket strainer  
filters in PP



INOX trolley



Anti vibration feet kit



Flange connection kit







# Polymer preparation units

Designed specifically to provide effective solutions to the needs of Water Treatment customers.

The polymer preparation unit is designed to automatically prepare polymer solutions which are used as coagulants for the eventual removal of suspended particles in the water treatment processes of a number of industries from swimming pool maintenance through to the various stages of waste water treatment. **SEKO's Poly Series** offers a complete range of polymer batching and metering systems. The range cover 4 models designed to meet all principal requirements including the PolyTower, designed specifically to have a small footprint for confined spaces.

# PolyCendos

## Effective polymer metering

Triple chamber continuous flow systems PolyCendos are used as batch flocculation aids for the preparation of polymer solutions and feature a storage tank subdivided into three chambers.

Processing of **liquid polymer (0.05–1.0 %)** and **powdered polymers (0.05–0.5 %)**.

Minimal product carry-over.

Extraction of the polymer solution and drainage of the chambers via the front of the storage tank.

User-guided input of the solvent concentration as well as calibration of the powder metering unit and liquid concentrate pump.

Optional PIC Programmable logic.



Controller with **PROFIBUS** module.

Version with terminal box available on request.

**Extraction rate up to 8,000 l/h.**

# PolyMan

## Batching of polymer solutions in batch quantities

PolyMan batching stations are used for the manual batching of liquid and powdered polymers.

**Ideal for use where there is no need for continuous operation.**

Manual addition of flocculants in batch quantities.

Robust design.

Cost-effective.

Batching tank manufactured from polypropylene including flushing system.



**Gentle mixing for constant performance** (electric stirrer).

Terminal box.

# PolyTower

## Compact double-decker

The compact double-deck PolyTower systems are subdivided into two storage tanks stacked on top of each other and are used as batch flocculation aids for the preparation of polymer solutions. The PolyTower product system is especially designed for confined areas thanks to its space saving design.

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**Processing of liquid polymer (0.05 – 1.0 %) and powdered polymers (0.05 – 0.5 %).**

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Offers user-guided input of the solvent concentration, as well as **calibration of the powder metering unit**. Comes with liquid concentrate pump water apparatus, with flow meter and fitting set for the dilution water.

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**Gentle mixing for constant performance** (electric stirrer).

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Optional PIC Programmable logic.

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Controller with **PROFIBUS module**.

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Version with terminal box available on request.

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# PolyKompact

## Super Compact High Performance

PolyKompact are super compact emulsion polymer preparation units where even the PolyTower might not fit. Available in 3 sizes, the PK series covers a wide range of applications ranging from water purification, chemical treatment, biological to mineral treatment.

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For such systems, **concentrations of 0.05 to 1.0% can be defined**. The viscosity of the polymer solution produced must not, however, **exceed 1500 mPas**.

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Flow rate of the preparation water **can be adjusted to fully utilize** the desired preparation range. Concentrations greater **than 0.5% may reduce the performance of the preparation**.

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The maturation time required depends on the polymer and will depend on the extraction rate and the volumetric capacity of the PolyKompact system.

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The system capacities range from **200 l for the PK200 up to 600 l for the PK600**.

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# PolyMaster

## Polymer batching systems ready for operation

PolyMaster are automatic triple chamber batching systems for powdered flocculant, suitable for the preparation of 0.05 to 0.5% polymer solutions

Systems assembled ready for operation.

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Three **individual cylindrical polypropylene storage tanks** serve as batching, maturing and storage tanks.

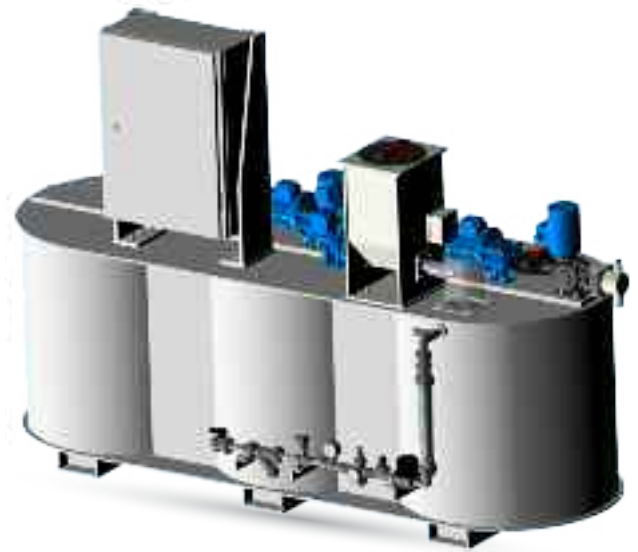
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Cylindrical storage tanks are hydraulically coupled via overflow channels.

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**Dry feeder with drive motor**, dosing pipe heating and powder funnel with seal tight lid.

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**Flushing system** for flushing and wetting of the powder.

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**Gentle mixing** with two electric stirrers for constant performance.

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**Control cabinet** for automatic control of the entire system.

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# Side channel compressors and vacuum pumps

SEKO's range of side channel blowers are an effective solution to for air displacement in many applications.

Side Channel blowers are the first choice in many automation projects for applications requiring large volumes of clean, dry air at low pressures and vacuums. SEKO has sought to deliver a product that offers easy installation as with our other products but also offers low operating noise levels in a small light weight design with operational energy saving in mind.



# Blowers

## Side channel compressors and vacuum pumps

Side channel blowers work according to an impulse principle, or regenerative flow. This means that kinetic energy from a rotating impeller is transferred to the pumping medium and converted into pressure. The impeller is mounted directly on the motor shaft for frictionless compression and, together with the specially shaped housing, forms the side channel. The pumping medium is sucked in, compressed in the side channel and conveyed to the second stage after one rotation.

Here, it is compressed again before being discharged. This way a side channel blower can be used to generate both vacuum and blast air. The motor rated power determines the maximum differential pressure of the blower. Silencers fitted to the inlet and discharge sides ensure quiet operation while maximum operational reliability, even at high differentials, is ensured by having the bearings outside the compression chamber.

The unique principle of operation and design brings key advantages of:

- no wearing parts
- no lubrication required
- minimum maintenance
- silent operation
- smooth air flow
- can be mounted in any direction, with reduced footprint and installation costs



New variable frequency drive allows **maximum performance** of a common motor driven unit to be **improved by 300%**. The precision machine tool cutting, ensures the **accuracy and quality**, of the blower. All products go through a **strict mechanical and electrical performance test**, using PROE, UG, CAD and other computer aided design software and motion simulations that test all the design features prior to final manufacture.

Dual frequency (50/60HZ) and wide voltage can meet almost **all the voltage levels in all regions of the world**, while the external design of the bearing, can bear high working temperature, and improves the **reliability and service life of the blower**.

Aluminium alloy one-time die-casting molding, machining parts completed in the cutting process, ensure **accuracy improvement** of traditional technology. The impeller design **increases performance versus competitor products of 20%** while its IP55 class protection (class F insulation) makes it suitable for applications worldwide.

A photograph of a large industrial facility, likely a chemical plant or refinery. The image shows a tall central tower with a complex network of pipes, scaffolding, and structural elements. The sky is blue with some clouds. The foreground is dominated by a dense network of large, silver-colored pipes and structural supports, creating a sense of depth and complexity.

# Dosing and injection packages

Where time is precious, costs are high and processes are intense, Dosing and injection systems provide a sometimes tailor made guarantee of precision, durability and reliability.

Injection and dosing systems for chemicals tend to be subject to very exacting requirements, with tailor made designs usually being required for a specific application and industry. There is also enormous demand for reliability and easy maintenance in extremes of environment be they hot, cold, on land or in the ocean.

# Dosing and injection packages

For more than 40 years SEKO has linked its success to a wide range of industrial fields by supplying complete dosing pumps and packages throughout the world. SEKO develops its own projects to best solve metering and pumping problems relating to different fluid properties and plant operating conditions.

The main industrial application areas for the dosing/injection packages designed and produced by SEKO are:

- Water treatment (municipalities, wastewater)
- Industrial sectors (steel, ceramics, food & beverages, detergents, paper, textile and pharmaceutical industries)
- Energy (boilers, desalination, cooling towers, environment)



## Advantages of SEKO chemical dosing/injection packages

- Range that covers applications from water treatment to oil & gas, to the food industry
- Products designed, manufactured and commercialized by SEKO worldwide
- Design and implementation of systems, from mechanical installation to electrical and automation systems & turnkey projects
- Ability to match many and multiple parameters - variances in pressures & flow rates, adverse environmental conditions, marine environment, ATEX / NON ATEX
- Professional design programs, software and personnel that ensure safety of processes
- Optional accessories: atomizers, instrumentation, custom connections, heating systems etc.
- Own maintenance service, prompt interventions, warranty of maintenance

# Your Choice, Our Commitment

People choose to do business with SEKO for one or more reasons, but ultimately it is their choice, and therefore they merit our commitment. "Our commitment" is total and not only to our customers, but also to each other and the Company's to its employees.

## Vision

**TO BE YOUR PARTNER OF CHOICE FOR  
DOSING SOLUTIONS, GLOBALLY**

SEKO, is a passionate, dedicated Global Family of Professionals. We listen to each of our Partners and are committed to deliver the right solution in the Hygiene, Water Treatment and Industrial Process markets.

## Values

**MUTUAL RESPECT, QUALITY AND  
SPIRIT OF COLLABORATION**

### MUTUAL RESPECT

Mutual Respect because doing business is about being able to generate trust between Customer and Supplier. We'll deliver against our commitments, on time and in a transparent fashion, so you know can plan for your own business needs.

### QUALITY

Quality for SEKO is a 360° reality. It covers not only the design, development, production and delivery of our products and solutions but it runs through the core professionalism of our teams.

### SPIRIT OF COLLABORATION

Spirit of Collaboration is fundamental to our success and SEKO prides itself on how we work as a worldwide team, blending multiple country teams and functions to bring solutions to a Customer request or market need from an idea to the real world in very short time, across our global presence and beyond.







# Your Choice, Our Commitment

In the modern Globalised world, being a privately owned Company has significant benefits especially for our Customers, our Partners. For over 40 years, SEKO has developed a Global organisation able to take the longer view, manage the pressure of the now, and to plan for the long term, delivering true Partnership for our Customers, with transparency and mutual respect for each other.

Whether it's for our reknown flexibility, our attention to detail, the high-quality products, or just the way we do business, we understand that it's Your Choice to do business with us. It is Our Commitment to fulfill your needs wherever you, our Customers are.



For more information about our portfolio, worldwide locations, approvals, certifications, and local representatives, please visit [www.seko.com](http://www.seko.com)



As part of a process of on-going product development, SEKO reserves the right to amend and change specifications without prior notice. Published data may be subject to change.

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# seko