Water & Industry

Product Catalogue 2026

Contents

Please note that SEKO products are specially designed for professional use in industrial applications and as such are not available for domestic or retail sales.

Water & Industry

Sustainability without compromise

In water and industry applications, managing the dual challenges of increasingly stringent environmental legislation and rising costs demands chemical-dosing equipment that can simultaneously deliver exceptional standards of precision, consistency and reliability.

We should know, we've been at the pinnacle of dosing pump and control system design for decades and our cutting-edge solutions help operators across the global water and industry spectrum to responsibly achieve their targets.

From residential swimming pools to complex industrial-scale projects, we'll work alongside you to protect the world's most precious natural resource without compromising on budget.

Choose SEKO as your partner for sustainable local solutions to a global challenge.

Water & Industry Applications

- Municipal Water Treatment
- Industrial Processes
- Livestock Farming
- Fertigation
- Car Wash
- Swimming Pool & Spa
- Pulp & Paper
- Hotels & Resorts
- Drinking Water
- Hospitals
- Cooling Towers
- Chemical Industry

SEKO Connectivity Solutions

- Users expect remote management of their equipment
- IoT enables access to operational information via smart devices
- Users can view data in real time or analyse it historically
- Remote connectivity helps optimise costs.
- Planned maintenance reduces downtime.

sekoweb

Professional dosing system management platform

Designed specifically for engineers, SekoWeb provides users with their own password-protected dashboard granting them unrestricted access to process data along with the ability to make programming changes across multiple installations.

SekoWeb is compatible with an ever-increasing number of SEKO systems and is ideal for busy technicians seeking the flexibility to manage dosing equipment at their convenience and reduce travel time and cost.

SekoWeb features

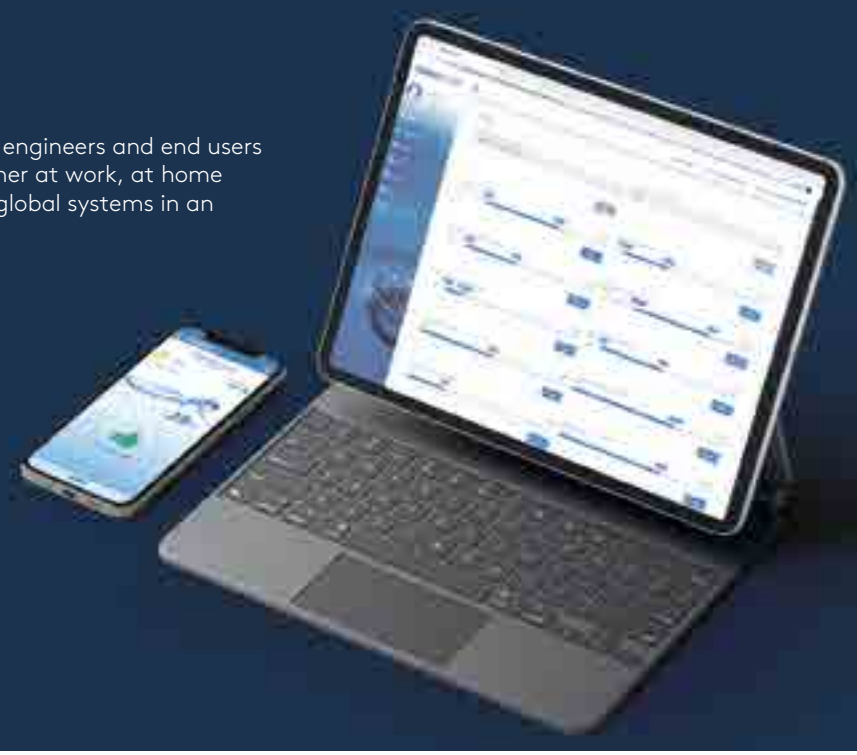
- Available on all iOS or Android-compatible smart devices
- Accessible via online login or by scanning a product's QR code
- Full access to all settings and parameters from any location
- Connect instantly to multiple installations
- Unprecedented insight into operating costs
- Track chemical consumption and account for every drop
- Adjust programmes on the move
- Comprehensive access to alarm reporting
- Unrestricted data analysis
- Map geolocation

Download on the App Store

Google Play

SekoWeb & SekoLink

SEKO's dedicated apps and online platforms for engineers and end users deliver unprecedented equipment access. Whether at work, at home or on the move, operators can connect to their global systems in an instant from a single intuitive platform.



Choose SEKO's IoT-enabled systems for:

- Complete process insight
- Enhanced user experience
- Increased revenue
- Time and money savings
- Improved employee productivity
- Simplified business decisions

sekolink

The smart solution for remote dosing pump monitoring

Designed for the end user, SekoLink is an intuitive smartphone app that grants users quick and easy access to key water-quality parameters for their pool or spa.

SekoLink allows users to start or pause their dosing system and to check the health of their installation from any location via an iPhone or Android smart device, allowing defects to be identified immediately so that issues can be quickly rectified.

SekoLink features

- Remote access via smartphone
- Connect to multiple installations
- Start or pause dosing system
- Complete parameter monitoring
- Pool health updates
- For professional and domestic pools and spas
- Accessible by all
- SekoWeb compatible

Connectivity and users

- Monitoring and limited management
- Smartphone app compatible with iPhone or Android
- Designed specifically for end users

Download on the App Store

GET IT ON Google Play

KommBox

Effortless web access and management connecting up to 10 Modbus-enabled SEKO devices

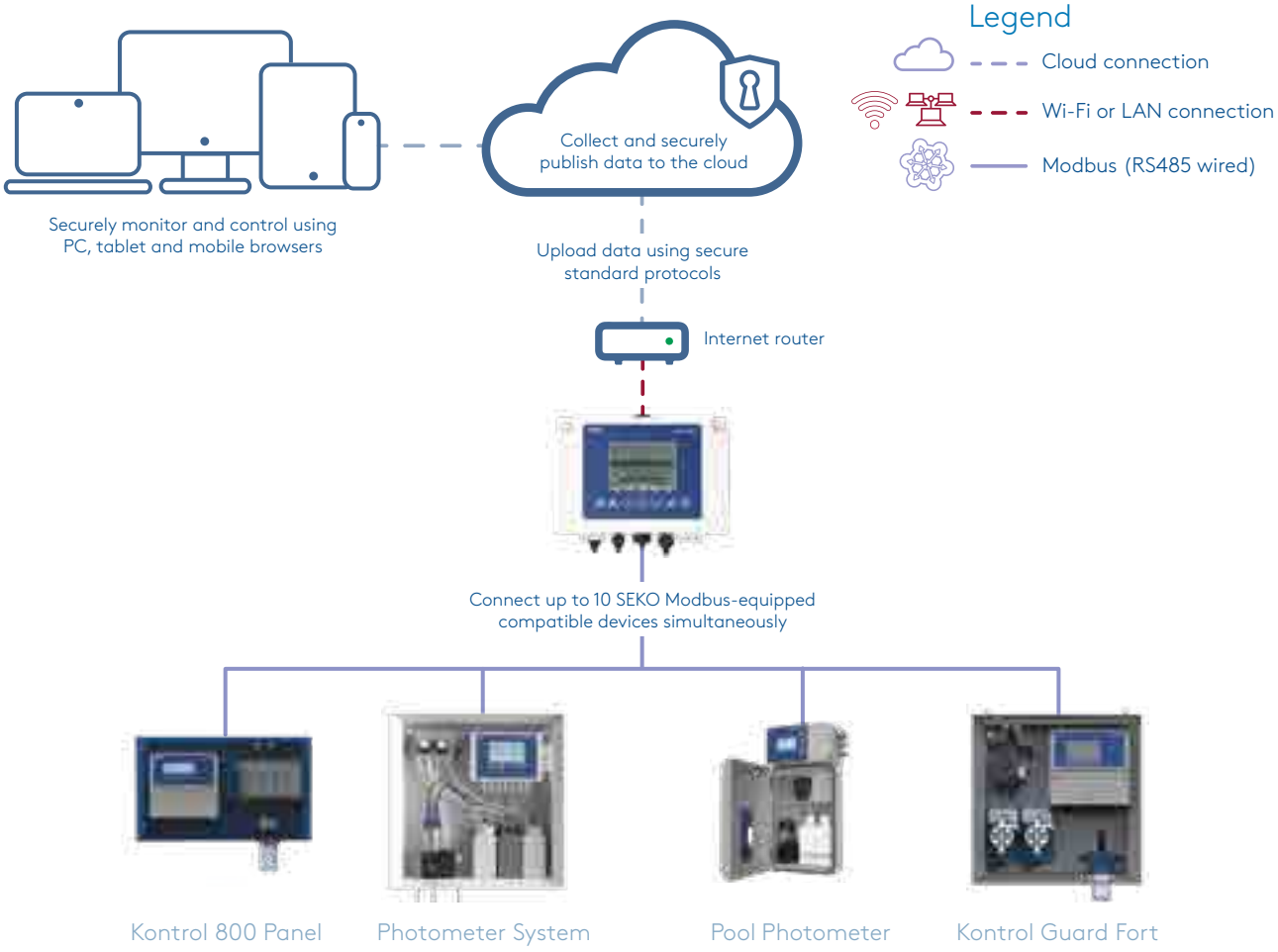
KommBox is a device that can be physically connected to all SEKO equipment provided with Modbus serial ports that are accessible via the web. Essentially, KommBox is a gateway that creates the interface between several Modbus devices and Wi-Fi or LAN – and therefore the web.

KommBox can be used via any available internet connection. Once configured and installed, the devices can be accessed directly from the dedicated SekoWeb portal, from any location, by users with the appropriate credentials.

KommBox features an intuitive wizard installation system for products as they are loaded, making the process quick, simple and straightforward. Once the products have been installed, they can be found in the portal itself.

IP65 Enclosure

Dimensions	218 x 180.5 x 46 mm (L x H x D)
Material	ABS



SekoWeb & Data on Demand

Please refer to page 4 for information on SekoWeb

KommSpot

Simple Wi-Fi connectivity and remote access for SEKO equipment

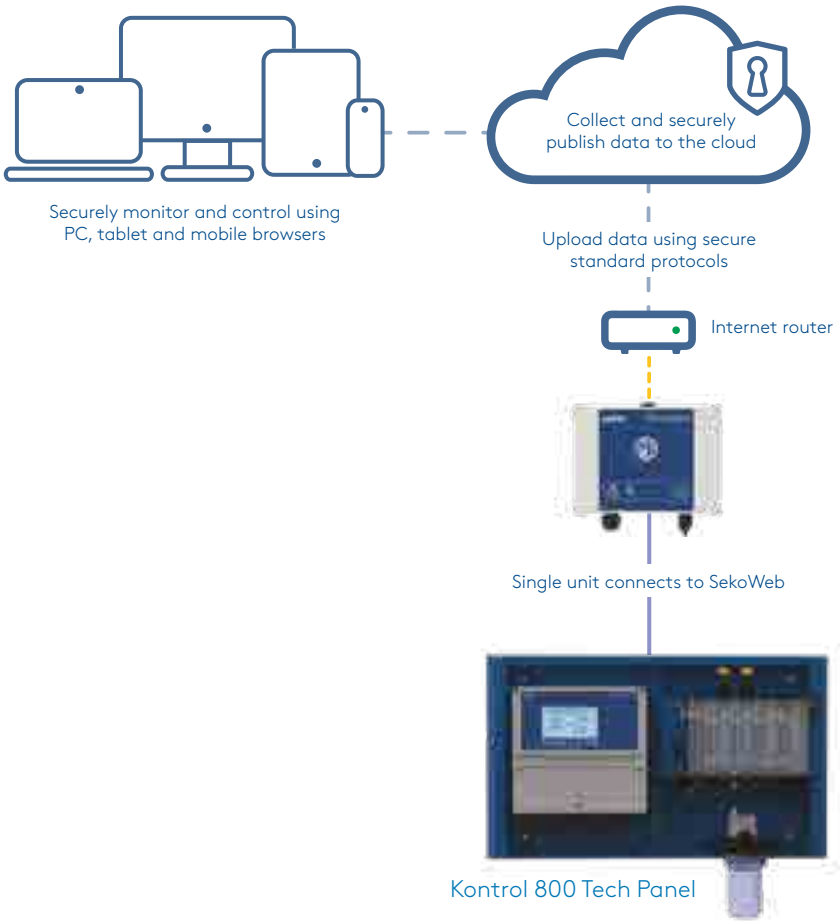
KommSpot is a dedicated unit that connects to all web-accessible SEKO devices fitted with Modbus serial ports, creating a vital link between the equipment and Wi-Fi for internet access.

Compatible with the SekoWeb online portal and smartphone app, KommSpot can be quickly and easily connected to SekoWeb by using SEKO apps and by scanning a QR-code.

Meanwhile, an intuitive wizard installation system makes the process fast, simple and hassle-free.

IP65 Enclosure

Dimensions	140 x 110 x 60 mm (L x H x D)
Material	ABS

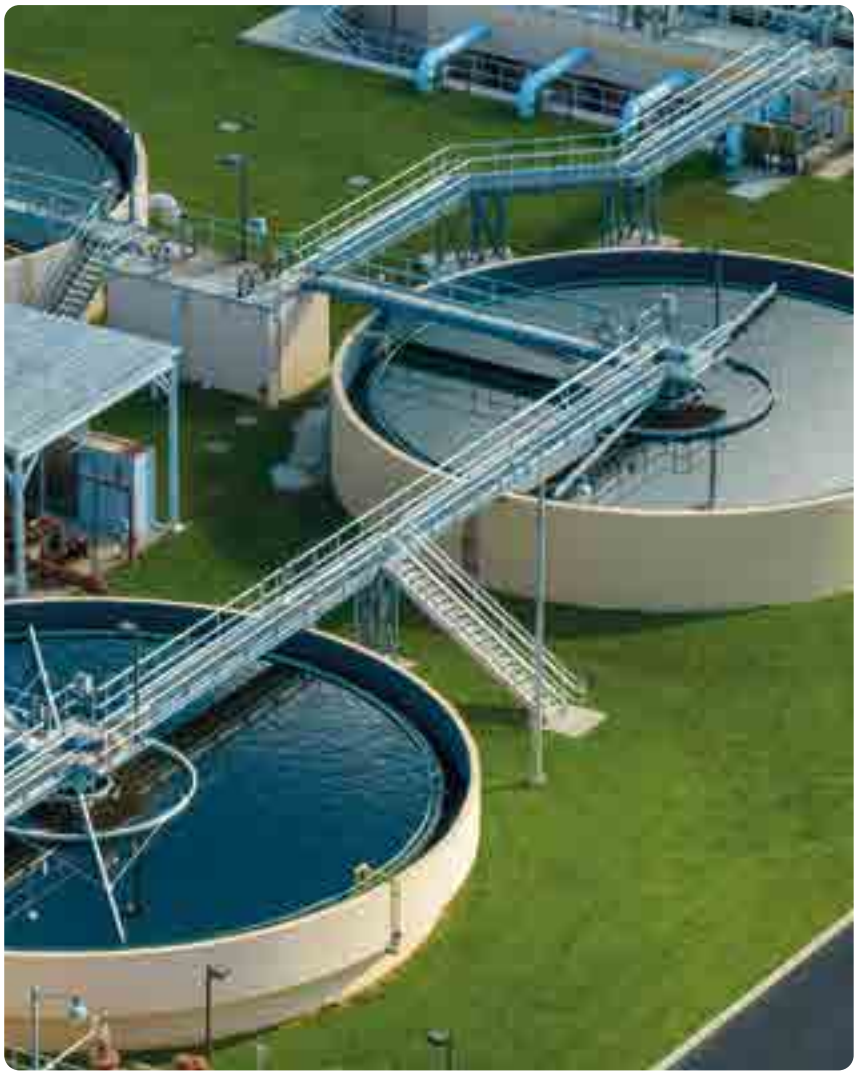


Legend

- Cloud connection
- Wi-Fi connection
- Modbus (RS485 wired)

Connect device to app by scanning QR code

Solenoid-Driven
Dosing Pumps



Product Overview

		Tekba-R	Tekba	Komba	Tekna	Kompact	Invikta
							
Performance	Flow rate range [l/h]	2.5 - 110	2.5 - 110	3 - 5	0.4 - 110	3 - 5	0.2 - 5
	Pressure [up to - bar]	20	20	10	20	10	7
Installation Mode	Base mounted	•	•	•			
	Wall mounted				•	•	•
	Bracket for alternative mounting	•	•	•	•	•	
Power Supply	24 Vac				•	•	•
	230 Vac			•		•	•
	Wide range 100/240 Vac	•	•	•	•	•	
User Interface	Analogue				•	•	•
	Digital	•	•	•	•	•	
Stroke Length Regulation	Mechanical	•					
Dosage Mode	Constant	•	•	•	•	•	•
	Prop. digital signal (water meter)	•	•	•	•	•	
	Prop. analogue signal (mA)	•	•	•	•	•	
	ppm / batch	•	•		•	•	
	Timed (weekly programmable timer)	•	•		•	•	
	pH / ORP		•		•	•	
ATEX	Zone 2				•		
Communication	Wi-Fi	•	•				
	Modbus	•	•		•		
Pump Head	PVDF standard	•	•	•	•	•	
	PVDF-T standard						•
	Auto degassing PVDF	•	•		•		
	SS316L	•	•		•		
O-Rings	FKM-B	•	•	•	•	•	•
	EPDM	•	•	•	•	•	•
	PTFE	•	•		•		
	FFKM	•	•	•	•		
Installation Kit	PVDF	•	•	•	•	•	
	PVDF-T				•	•	•

Tekba-R, Tekba & Komba

Digital base-mounted dosing pumps

Tekba-R, Tekba and Komba are professional solenoid-driven dosing pumps that share a number of key characteristics while each offering their own unique benefits for specific water-treatment applications.

These precise, robust and reliable pumps also benefit from level input on all models and standard seals in FKM-B or EPDM, with special seals available for each model.

Applications

- Agricultural water treatment
- Food & beverage
- Industrial water treatment
- Potable water treatment
- Wastewater treatment

Features & benefits

Chemical compatibility

PVDF pump head and delivery tubes and fittings plus ceramic ball valves provide pump longevity and compatibility with all principal water-treatment applications.

Reduced energy consumption

A stabilised multi power supply (100 - 240 Vac, 50/60 Hz) comes as standard, with its solenoid-driving algorithms, patented by SEKO, helping to reduce energy consumption.

Reliable and consistent

As well as protecting the pump itself and the environment, the driving algorithm compensates for power supply fluctuations, enabling precise and accurate dosing in any conditions.

Mechanical stroke adjustment available on Tekba-R version

Ease of installation

Pumps can be installed with the casing closed and without special tools.

Electrical safety

All electrical connections are available externally on circular IP65 connectors.

Long-life diaphragm

PTFE diaphragm, guaranteed for 5 years.

Simplified cabling

Cable connectors have internal screw terminals, facilitating a clean and professional installation with cables pre-cut to the correct size.

Tekba-R

Solenoid-driven pumps with mechanical stroke-length regulation

Tekba-R is a range of digital solenoid-driven dosing pumps with mechanical stroke-length regulation. It represents a state of-the-art solution for its reliability, dosing precision and ease of use and has been designed in response to positive customer feedback on the Tekna Series. The Tekba-R Series offers a modern and reliable product, a reference point in the base-mounted dosing pump sector.

- Flow rate range: 2.5 – 110 l/h, up to 20 bar
- Wetted parts: PVDF, PTFE, FFKM, EPDM, FKM-B and Ceramic

Features

- Mechanical stroke length regulation
- **EML:** Constant dosing at the desired flow rate
- **EMG:** Multifunction:
  - 4 - 20 mA analogue input
  - Frequency input
  - Remote ON / OFF input
  - Directly connectable to a water meter
  - Dosage in ppm
  - Functions 1: N, N: 1, 1: 1
  - Timed dosing
- Available with special seals in PTFE or FFKM
- Available with Modbus RTU RS485 port
- Available with Wi-Fi interface that allows:
  - Direct local connection to the pump for its programming via internal webserver
  - Connection to a Wi-Fi network for remote management via the SekoWeb app or online portal

- Tekba-R's unique features include a digital interface that allows programming via keyboard and display, while solenoid stroke adjustment can be performed with a mechanical knob for increased dosing precision.
- Tekba-R is available in two models. The EML is a constant dosing pump with adjustable flow rate, while the EMG is a multifunction pump that includes operating modes timed or proportional to an analogue 4 - 20 mA signal, or to a digital signal such as that generated by a pulse-emitting water meter.
- Tekba-R is also available with a Modbus interface, which allows the pump to be integrated into a more complex system in which other Modbus devices are already present. It's also available with a Wi-Fi interface which enables operation via the SekoWeb app or online portal.

Tekba-R key code

Model	
EML	Constant flow rate. Stroke length adjustable with a mechanical knob. Working frequency (strokes per minute) adjustable via digital interface. With level input.
EMG	Multifunction pump. Stroke length adjustable with a mechanical knob. Working mode to be set via its digital interface.

Hydraulics	Pressure [bar]	Flow rate [l/h]	Capacity [cc/stroke]	Ø Hydr Connections IN/EXT. [mm]	Frequency [stroke/min]	Consumption [W]	Weight [kg]	Packing size L x W x H [mm]
600	20	2.5	0.35	4/6	120	20	3.9	290 x 255 x 220
	18	3	0.42					
	14	4.2	0.58					
	8	7	0.97					
603	12	4	0.42	4/6	160	20	3.4	290 x 255 x 220
	10	5	0.52					
	8	6	0.63					
	2	8	0.83					
800	16	7	0.38	4/6	300	20	4.4	290 x 255 x 220
	10	10	0.55					
	5	15	0.83					
	1	18	1.00					
803	5	20	1.11	8/10	300	40	4.4	290 x 255 x 220
	4	32	1.78					
	2	62	3.44					
	0.1	110	6.11					

Stroke-length regulation	
M	Mechanical regulation

Power supply		
N	100 - 240 Vac, 50/60 Hz	Wide range

Liquid end		Body	Balls	Diaphragm
H		PVDF	Ceramic	PTFE
A	Automatic degassing	PVDF	Ceramic	PTFE
I		SS316L	SS316L	PTFE

Installation kit	
H	PVDF

O-Ring	
0	FKM-B
1	EPDM
2	PTFE
3	FFKM

Colour		Back	Front
00	Standard	RAL7004	RAL5010

Communication	
0	No
W	Wi-Fi
M	Modbus

Customisation	
0	Standard

EMG	800	M	N	H	H	2	00	W	0

Tekba

Base-mounted solenoid-driven dosing pumps

Tekba is a digital base-mounted solenoid-driven dosing pump. It represents the best compromise between reliability, dosing precision and ease of use and has been designed to satisfy the needs of the market. Tekba offers the same features and functions of the Tekba-R range, except its mechanical stroke regulation but with a wider selection of models that enable the series to meet a broader range of applications.

- Flow rate range: 2.5 – 110 l/h, up to 20 bar
- Wetted parts: PVDF, PTFE, FFKM, EPDM, FKM-B and Ceramic

Features

- **EML:** Constant dosing at the desired flow rate
- **EMG:** Multifunction
- **EMM:** Proportional (4 - 20 mA input)
- **EMC:** Proportional (digital pulse input)
- **EMR:** Instrument-pump with pH/ORP input
- Available with special seals in PTFE or FFKM
- Available with Modbus RTU RS485 port
- Available with Wi-Fi interface that allows:
  - Direct local connection to the pump for programming via internal webserver
  - Connection to a Wi-Fi network, for remote management via the SekoWeb app or online portal

- Alongside the constant and multifunction EML and EMG models, common to the Tekba-R range, the Tekba series includes two purely proportional models: EMM, which manages a 4 - 20 mA input and EMC, which accepts a pulse input.
- An EMR instrument-pump is also available, with an input for a pH/ORP probe. The EMG and EMR versions are also available with a Modbus communication port for integrating the pump into a more complex system, or with a Wi-Fi interface that allows the pump to be managed via SekoWeb.

Tekba key code

Model	
EML	Constant flow rate. Flow rate adjustable via digital interface. With level input.
EMG	Multifunction pump. Working mode to be set via its digital interface.
EMR	Instrument-pump. Dosage in function of the measured pH or redox value. PT100 probe input also available for thermal compensation.
EMM	Proportional dosing to an analogue signal (4 - 20 mA).
EMC	Proportional dosing to a digital frequency signal (pulse).

Hydraulics	Pressure [bar]	Flow rate [l/h]	Capacity [cc/stroke]	Ø Hydr Connections IN/EXT. [mm]	Frequency [stroke/min]	Consumption [W]	Weight [kg]	Packing size L x W x H [mm]
600	20	2.5	0.35	4/6	120	20	3.9	290 x 255 x 220
	18	3	0.42					
	14	4.2	0.58					
	8	7	0.97					
603	12	4	0.42	4/6	160	20	3.4	290 x 255 x 220
	10	5	0.52					
	8	6	0.63					
	2	8	0.83					
800	16	7	0.38	4/6	300	20	4.4	290 x 255 x 220
	10	10	0.55					
	5	15	0.83					
	1	18	1.00					
803	5	20	1.11	8/10	300	40	4.4	290 x 255 x 220
	4	32	1.78					
	2	62	3.44					
	0.1	110	6.11					

Stroke-length regulation

N	Not available

Power supply

N	100 - 240 Vac, 50/60 Hz	Wide range

Liquid end		Body	Balls	Diaphragm
H		PVDF	Ceramic	PTFE
A	Automatic degassing	PVDF	Ceramic	PTFE
I		SS316L	SS316L	PTFE

Installation kit

H	PVDF

O-Rings

0	FKM-B
1	EPDM
2	PTFE
3	FFKM

Colour		Back	Front
00	Standard	RAL7004	RAL5010

Communication

0	Standard
W	Wi-Fi
M	Modbus RTU RS485

Customisation

0	Standard

EMG	800	N	N	H	H	2	00	W	0

Komba

Compact, base-mounted, solenoid-driven dosing pumps

Komba is a compact base-mounted solenoid-driven digital dosing pump designed specifically for sites where space is at a premium but performance cannot be compromised. Komba's reliability, dosing precision, user-friendliness and ease of installation mean it represents the best solution of its kind in the market today.

- Flow rate range: 3 l/h @ 10bar; 5 l/h @ 8bar
- Wetted parts: PVDF, PTFE, FFKM, EPDM, FKM-B and Ceramic

- Komba is available in three models, satisfying a broad range of installation needs.
- The DML is a constant dosing pump with programmable flow rate, digital interface and level input. The DMM and the DMC are proportional dosing pumps; the DMM accepts an analogue 4 - 20 mA signal as input, while the DMC accepts a digital frequency signal, such as one generated by a pulse-emitting water meter.

Features

- **DML:** Constant dosing at the desired flow rate
- **DMM:** Proportional (4 - 20 mA input)
- **DMC**: Proportional (digital pulse input)
- Available with special seals in FFKM

Komba key code

Model

DML	Constant flow rate. Flow rate adjustable via digital interface. Level input.
DMM	Proportional dosing to an analogue signal (4 - 20 mA).
DMC	Proportional dosing to a digital frequency signal (pulse).

Hydraulics	Pressure [bar]	Flow rate [l/h]	Capacity [cc/stroke]	Ø Hydr Connections IN/EXT. [mm]	Frequency [stroke/min]	Consumption [W]	Weight [kg]	Packing size L x W x H [mm]
200	10	3	0.31	4/6	160	14	2.8	290 x 215 x 195
	8	5	0.52					

Stroke-length regulation

N	No regulation

Power supply

N	100 - 240 Vac, 50/60 Hz	Wide range

Liquid end

	Body	Balls	Diaphragm
H	PVDF	Ceramic	PTFE

Installation kit

H	PVDF

O-Rings

0	FKM-B
1	EPDM
3	FFKM

Colour

		Back	Front
00	Standard	RAL7004	RAL5010

Optional

0	Standard

Customisation

0	Standard

DML	200	N	N	H	H	0	00	0	0

Tekna & Kompact

Wall-mounted solenoid dosing pumps

Tekna and Kompact offer precise chemical dosing for water-treatment professionals, with multiple models serving distinct applications, from basic requirements to complex high-end processes.

Delivering consistent, repeatable results, Tekna and Kompact are the go-to solution for many potable and wastewater treatment processes, with SEKO's continuous refinement of these systems meaning they always meet the latest local and national legislation.

Applications

- Commercial swimming pools
- Cooling water treatment
- Food & beverage
- Industrial water treatment
- Potable water treatment
- Wastewater treatment

Features & benefits

Easy to fit

The installer-friendly bracket enables quick and simple wall mounting.

Premium seals

Available with special seals in FFKM or PTFE.

Quality and strength

Pump body comes in PVDF as standard.

Long-life diaphragm

PTFE diaphragm, guaranteed for 5 years.

Reliable seals

Standard seals in FKM-B or EPDM.

Robust and reliable

Robust and reliable for extended service life.

Tekna

Wall-mounted solenoid-driven dosing pumps

Tekna is one of the most widespread, well-known and appreciated wall-mounted electromagnetic pump ranges in the world, a range that has evolved over the years by drawing upon the feedback of thousands of users across the globe. The series offers multiple models, with analogue and digital interfaces, able to satisfy every installation need and to offer a reliable and effective solution in any situation.

- Flow rate range: 0.4 – 110 l/h, up to 20 bar
- Wetted parts: PVDF, SS316L, PTFE, FFKM, EPDM, FKM-B and Ceramic
- Analogue and digital range with constant or proportional dosage

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

Features

- Pump body in PVDF
- Kit available in PVDF or PVDF-T
- Patented algorithm for driving the solenoid
- **AKS:** Constant, with analogic interface (potentiometer)
- **AKL:** Constant with level, analogic interface
- **APG:** Proportional dosing (4 - 20 mA/pulse), analogic interface
- **TPG:** Multifunction proportional dosing (4 - 20 mA/pulse), digital interface
- **TPR:** Instrument-pump with pH/ORP input, digital interface
- **TCK:** Weekly timed pump, digital interface
- Available in ATEX-certificated models (Zone 2)
- Models available with 24 Vac and 12 Vdc power supply
- Available with special seals in PTFE or FFKM
- Available with auto-degassing pump head in PVDF
- Available with Modbus RTU RS485 port for:
  - Integrating the pump in a more complex plant, locally managed by a PLC or an industrial PC, where other Modbus devices are already present
  - Connect the pump to a KommBox or a KommSpot and, through them, to the internet for management via the SekoWeb app or online portal

- Numerous Tekna models are available, with analogic or digital interface, to satisfy almost any request from the market.
- Tekna delivers reduced energy consumption thanks to an embedded stabilised multi-range power supply (100 – 240 Vac, 50/60 Hz). Thanks to the SEKO patented algorithm, the solenoid only draws the power strictly required to activate the pump, based on the actual working conditions, which improves pump efficiency and saves energy. The algorithm also compensates for any fluctuation of the power supply voltage, for giving a precise and accurate dosage in any condition.
- Tekna is also available in ATEX standard-compliant versions, with constant or proportional dosage functions and a digital interface. This model comes with a SS316L pump body as standard.

Tekna key code

Model	
AKS	Constant dosing, without input for level probe. Flow rate adjustable via analogic interface (potentiometer).
AKL	Constant dosage, with input for level probe. Flow rate adjustable via analogic interface (potentiometer).
APG	Proportional dosing to an analogue signal (4 - 20 mA) or to digital frequency signal (pulse). With analogic interface (potentiometer).
TPG	Multifunction pump. Proportional dosing to an analogue signal (4 - 20 mA) or to digital frequency signal (pulse). PPM mode, Timer mode, batch mode and others. Digital interface.
TPR	Instrument-pump. Dosage in accordance with the measured pH or redox value. PT100 probe input also available for thermal compensation. Digital interface.
TCK	Timed pump. Weekly programmable dosage, at the programmed flow rate, and other timed dosing modes. Digital interface.

Hydraulics	Pressure [bar]	Flow rate [l/h]	Capacity [cc/stroke]	Ø Hydr Connections IN/EXT.[mm]	Frequency [stroke/min]	Consumption [W]	Weight [kg]	Packing size L x W x H [mm]
500	20	0.4	0.06	4/7 delivery 4/6 suction	120	15	3.9	295 x 245 x 185
	16	0.8	0.11					
	10	1.2	0.17					
	6	1.5	0.21					
600	20	2.5	0.35	4/7 delivery 4/6 suction	120	20	3.9	295 x 245 x 185
	18	3	0.42					
	14	4.2	0.58					
	8	7	0.97					
603	12	4	0.42	4/6	160	20	3.4	295 x 245 x 185
	10	5	0.52					
	8	6	0.63					
	2	8	0.83					
800	16	7	0.38	4/6	300	20	4.4	295 x 245 x 185
	10	10	0.55					
	5	15	0.83					
	1	18	1.00					
803	5	20	1.11	8/12	300	40	4.4	295 x 245 x 185
	4	32	1.78					
	2	62	3.44					
	0.1	110	6.11					

Power supply		
N	100 - 240 Vac, 50/60 Hz	Wide range
O	24 Vac, 50/60 Hz	
L	12 Vdc	

Liquid end		Body	Balls	Diaphragm
H		PVDF	Ceramic	PTFE
A	Automatic degassing	PVDF	Ceramic	PTFE
I		SS316L	SS316L	PTFE

Installation kit	
H	PVDF
P	PVDF-T
X	PVDF - 1.5 bar injection valve
0	Without kit (ATEX only)

O-Rings	
0	FKM-B
1	EPDM
2	PTFE
3	FFKM

Optional	
0	Standard

Optional/customisation	
00	Standard
M0	Modbus RTU RS485
X0	ATEX certification (TPG and TCK only)

TPG	603	N	H	H	0	0	00

Kompact

Compact wall-mounted solenoid-driven dosing pumps

Kompact is a range of simple, reliable and compact wall-mounted solenoid-driven pumps. Designed to provide an effective response to the differing needs of the market, the series comprises multiple models, both with analogic and digital interfaces, to meet the most common installation conditions.

- Flow rate range: 3 l/h @ 10bar; 5 l/h @ 8bar
- Wetted parts: PVDF, PTFE, EPDM, FKM-B and Ceramic
- Analogue and digital range with constant or proportional dosage

Features

- Pump body in PVDF
- Kit available in PVDF or PVDF-T
- **AMS:** Constant, with analogic interface (potentiometer)
- **AML:** Constant with level, analogic interface
- **AMC:** Proportional dosing (pulse), analogic interface
- **DPT:** Multifunction proportional dosing (4 - 20 mA/pulse), digital interface
- **DRP:** Instrument-pump with pH/ORP input, digital interface
- Available with special seals in FFKM

- Kompact has been designed as a basic range of solenoid-driven pumps for less demanding applications without compromising on robustness and reliability.
- With Kompact, SEKO has struck the perfect balance between using premium components that guarantee full chemical compatibility in multiple applications while ensuring affordability for the operator.
- To satisfy every installation need, the range offers five different models, for constant and proportional dosages; three with an analogic interface (potentiometer) and two with a digital interface (keyboard and 2x8 display).

Kompact key code

Model	
AMS	Constant dosing, without input for level probe. Flow rate adjustable via analogic interface (potentiometer).
AML	Constant dosage, with input for level probe. Flow rate adjustable via analogic interface (potentiometer).
AMC	Proportional dosing to a frequency digital signal (pulse), analogic interface.
DPT	Multifunction pump. Proportional dosing to an analogue signal (4 - 20 mA) or to digital frequency signal (pulse). PPM mode, Timer mode, batch mode and others. Digital interface.
DRP	Instrument-pump. Dosage according to pH or redox value. PT100 probe input also available for thermal compensation. Digital interface.

Hydraulics	Pressure [bar]	Flow rate [l/h]	Capacity [cc/stroke]	Ø Hydr Connections IN/EXT. [mm]	Frequency [stroke/min]	Consumption [W]	Weight [kg]	Packing size L x W x H [mm]
200	10	3	0.31	4/6	160	12	2.7	210 x 130 x 170
	8	5	0.52					

Power supply	
N	100 - 240 Vac, 50/60 Hz Wide range
A	230 Vac, 50 Hz (solo per AMS)
O	24 Vac 50/60 Hz

Liquid end	Body	Balls	Diaphragm
H	PVDF	Ceramic	PTFE

Installation kit	
E	PVDF-T
H	PVDF
X	PVDF - 1.5 bar injection valve

Seals	
0	FKM-B
1	EPDM
3	FFKM

Optional	
00	Standard

Customisation
0

DPT	200	N	H	E	0	00	0

Invikta

Compact water-treatment dosing pump

Invikta is among the most compact, easy-to-use and reliable solenoid-driven dosing pumps on the market today. Controlled via microprocessor, Invikta represents the most effective solution for many simple water-treatment applications and for integration as an OEM module in a larger system.

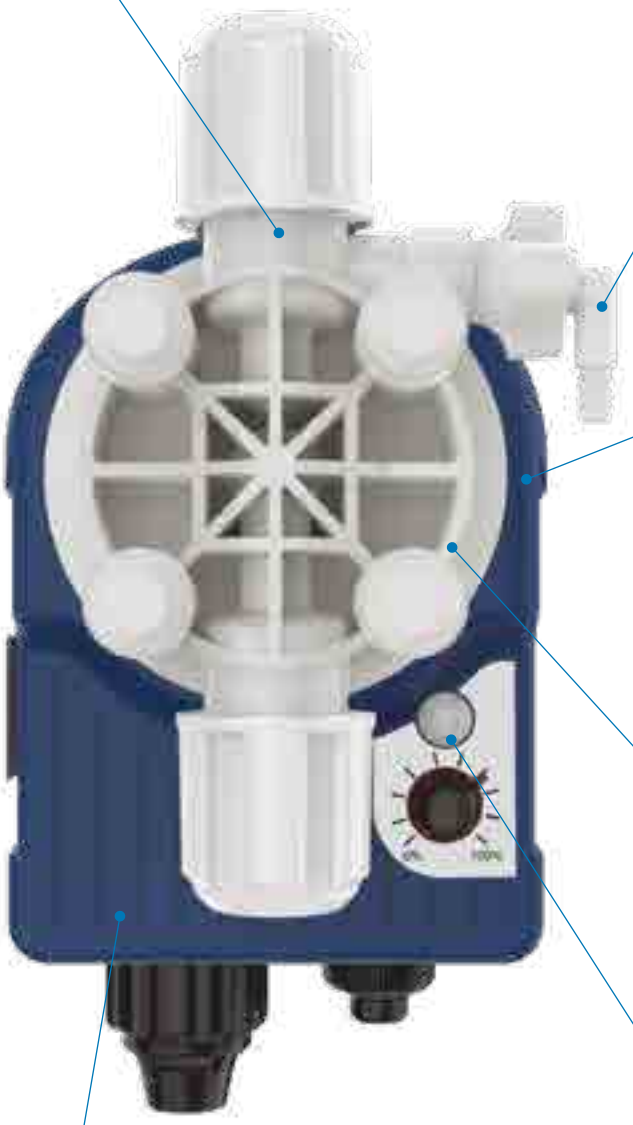
Applications

- Automotive water treatment
- Industrial water treatment
- Potable water treatment
- Swimming pool water treatment
- Wastewater treatment

Features & benefits

Reliable seals

Standard seals in FKM-B or EPDM.



Priming tap

The priming tap helps to prime the pump at the first installation or when the chemical runs out.

Quality construction

The PVDF-T pump body has the same chemical compatibility of PVDF but at an affordable price.

Long-life diaphragm

PTFE diaphragm, guaranteed for 5 years.

Ease to set

Simple analogic interface: potentiometer and LED.

Simple operation

Bracket for wall mounting.

Invikta

The market's most user-friendly solenoid-driven dosing pumps

Invikta is among the most compact, easy-to-use and reliable solenoid-driven dosing pumps on the market today. Controlled via microprocessor, Invikta represents the most effective solution for many simple water-treatment applications and for integration as an OEM module in a larger system.

- Flow rate range: 0.2 – 5 l/h, up to 7 bar
- Wetted parts: PVDF-T, PTFE, EPDM, FKM-B and Ceramic

Features

- Pump body and fittings in PVDF-T
- PTFE diaphragm, guaranteed for 5 years
- Simple analogic interface: potentiometer and LED
- **KCS:** Constant, without level, with adjustable flow rate
- Standard seals in FKM-B or EPDM
- Bracket for wall mounting
- Bleed tap facilitates priming
- **KCS Low-Noise** model available for spa applications

- The premium components chosen for the Invikta series ensure full chemical compatibility across multiple applications and guarantee long product lifespan. Invikta's PVDF-T pump body, ceramic balls and PTFE diaphragm (guaranteed for five years) reflect SEKO's commitment to product quality, whether affordable or high-end.
- Invikta's compact dimensions and a truly minimal electronic control board allow SEKO to offer a cost-effective product that represents the right solution where simple functionality is a priority.
- As with all other SEKO solenoid-driven pumps, Invikta is housed within a polypropylene casing and delivers IP65 protection. This provides excellent dust and water resistance, meaning Invikta can be used safely in a multitude of environments.

Invikta key code

Model

KCS — Constant dosing, without input for level probe. Flow rate adjustable via analogic interface (potentiometer).

Hydraulics	Pressure [bar]	Flow rate [l/h]	Capacity [cc/stroke]	Ø Hydr Connections IN/EXT.[mm]	Frequency [stroke/min]	Consumption [W]	Weight [kg]	Packing size L x W x H [mm]	
620	1	0.2	0.17	4/6	20	15	2.5	190 x 130 x 170	Low-noise version
630	7	0.6	0.10	4/6	100	15	2.5	190 x 130 x 170	Low-flow version
632	7	2	0.33	4/6	100	15	2.5	190 x 130 x 170	
633	5	5	0.52	4/6	160	15	2.5	190 x 130 x 170	

Power supply

A	230 Vac, 50 Hz
0	24 Vac, 50/60 Hz

Liquid end	Body	Balls	Diaphragm	O-ring
VF	PVDF-T	Ceramic	PTFE	FKM-B
VE	PVDF-T	Ceramic	PTFE	EPDM

Installation kit

K	Standard
D	Detergent
R	Rinse
S	Only injection valve - Low-noise version

Optional

00	Standard

KCS	630	A	VF	K	00

Solenoid pump head covers

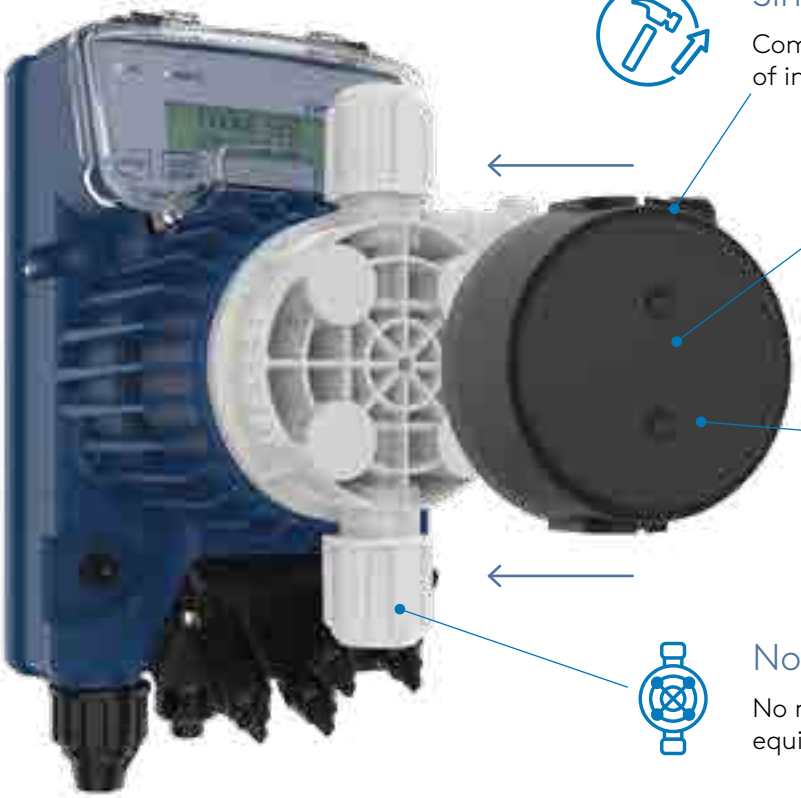
Customise your SEKO solenoid dosing pumps

SEKO brings an exciting customisation option to our solenoid-driven dosing pumps, with special pump head covers that give operators the chance to personalise their equipment with the branding or information of their choice.

Easily customised with your own adhesive label*

*Adhesive labels are not included

Solenoid pump head covers



Single part

Comprising a single part for ease of installation

Customisable

These covers are easily customised with an adhesive label

Easy to fit

The cover fits snugly and securely to the pump head and can be easily removed during maintenance

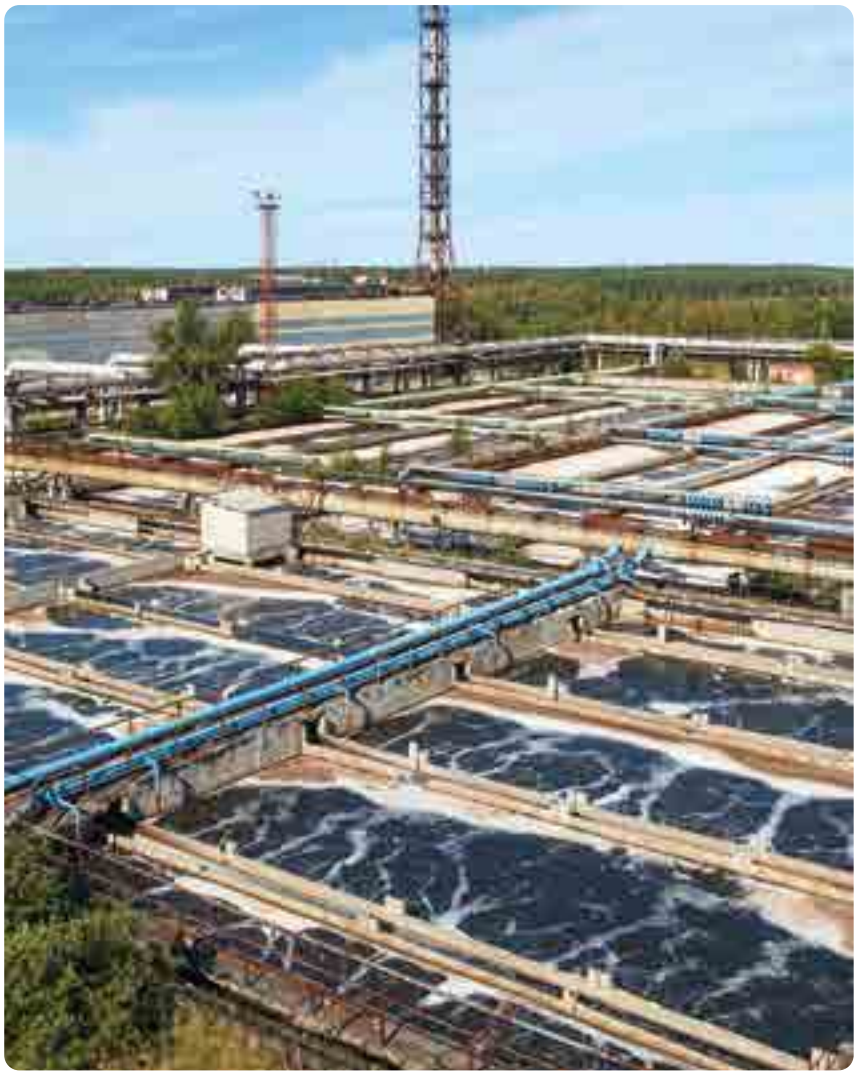
No modification is needed

No modification of the existing equipment is required

Pump Head Cover Model*	Compatible with:		
 **Small**	 Kompact	 Komba	 Invikta
 **Medium**	 Tekna 603/800		
 **Large**	 Tekna 500/600	 Tekba 600/603/800	
 **X-Large**	 Tekna 803	 Tekba 803	

* Pump head covers are supplied in packs of 5

Motor-Driven
Dosing Pumps



Product Overview

		Tork TY	Kosmo MM2	Kosmo MM
				
Performance	Flow rate range [l/h]	2.8 - 3,740	80 - 2,300	9 - 530
	Pressure [up to - bar]	40	10	12
Installation Mode	On the base	•	•	•
	Bracket for base			
	Bracket for tank			
Motor	3 phase	•	•	•
	1 phase			
	Servoventilated		•	•
Stroke Length Regulation	Manual	•	•	•
	Electric actuator	•		
Pump Head (FPM and EPDM seals)	PVC			
	PP			
	PVDF	•	•	•
	SS316L	•	•	•
Special Pump Head	SS316L NBR + PTFE piston seals			
Proportional Dosing	External signal			
Communication	Wi-Fi			
	Modbus			

		Spring PS2	Spring PS1	Spring MS1	Spring MSV	Spring with Elektra
						
Performance	Flow rate range [l/h]	2.5 - 1,000	1.5 - 304	5.5 - 1,200	10 - 120	1.5 - 1,000
	Pressure [up to - bar]	100	20	16	5	20
Installation Mode	On the base	•	•	•	•	•
	Bracket for base	•	•	•		•
	Bracket for tank	•	•	•		•
Motor	3 phase	•	•	•	•	•
	1 phase	•	•	•	•	
	Servoventilated	•	•	•	•	
Stroke Length Regulation	Manual	•	•	•	•	•
	Electric actuator	•	•	•		
Pump Head (FPM and EPDM seals)	PVC	•	•	•		•
	PP			•		•
	PVDF			•	•	•
	SS316L	•	•	•	•	•
Special Pump Head	SS316L NBR + PTFE piston seals	•				
Proportional Dosing	External signal					•
Communication	Wi-Fi					•
	Modbus					•

Tork

A very high level of precision

SEKO's long standing experience of designing and producing pumps for heavy duty applications has been utilised for the design of the Tork series. When reliability, efficiency, and performance are key, the SEKO Tork pump clearly stands out by delivering **superior flow rate performance (up to 3,740 l/h) at higher operating pressures (up to 40 bar),** making it the ideal choice for demanding dosing applications.

Mechanical return mechanism available in several sizes

Designed to produce low noise emissions and minimise power consumption, Tork pumps feature manual flow-rate adjustment. Each mechanism comes complete with an internal gearbox, meaning that pumps with different speeds can be connected for greater flexibility in equipment selection. Tork's high-precision stroke adjustment, to an accuracy of ± 1%, can be both manually or electrically adjusted using SEKO-designed electrical actuators.

PTFE double hydraulic diaphragm heads (TY) the ideal solution for applications demanding operational safety and reliability

Tork's safety features include a zero-leakage profile that offers watertight construction for dosing toxic, corrosive and other hazardous liquids. Meanwhile, its double diaphragm protection system immediately signals anomalies without ceasing operation, preventing unplanned downtime. This heavy-duty pump's diaphragm does not require perforated shields on the process side, allowing liquids containing solid suspensions to be pumped.

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

Applications

- Municipal Water Treatment
- Chemical Industry
- Drinking Water
- Industrial Water Treatment
- Pulp & Paper
- Pharmaceutical

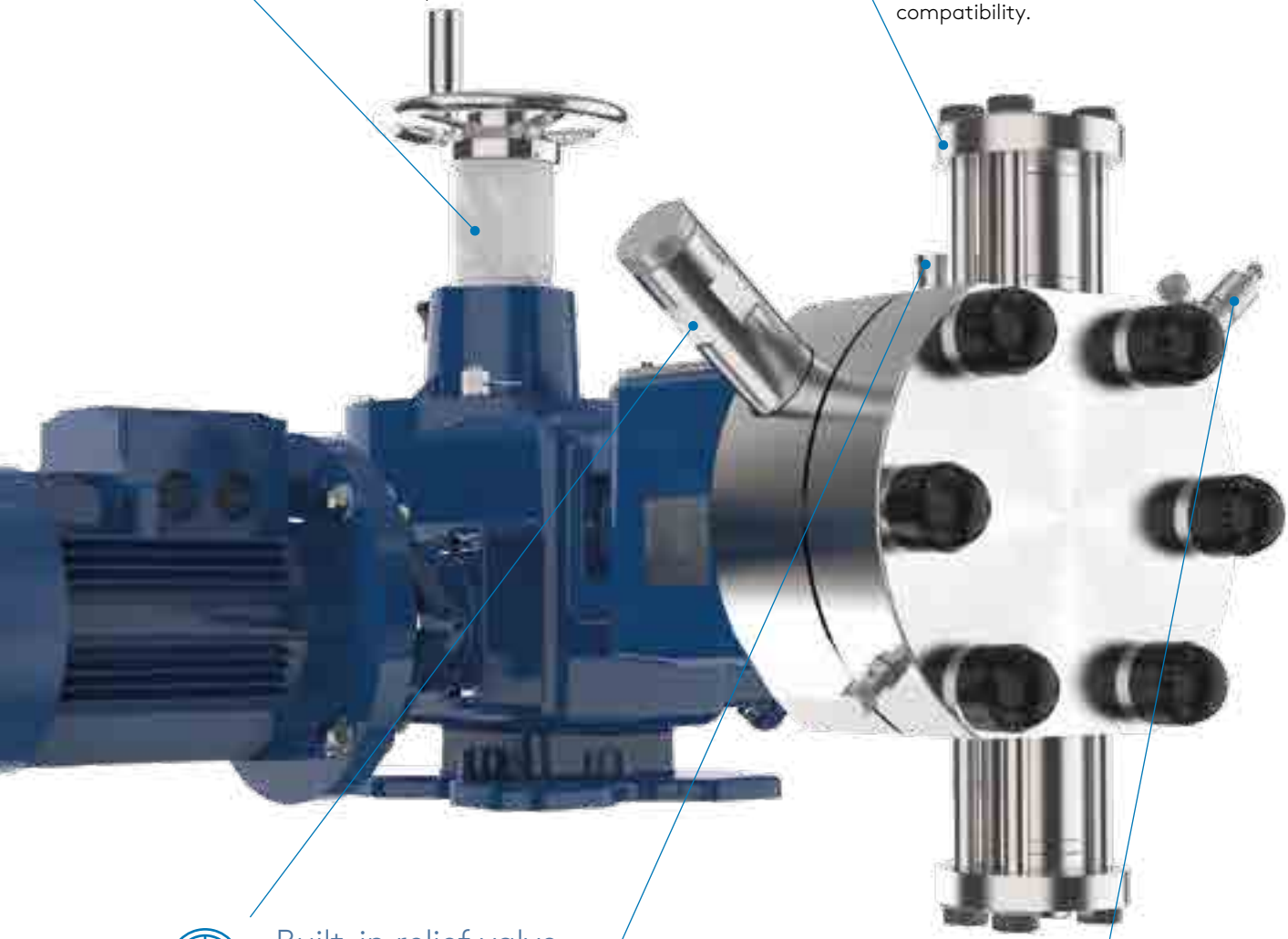
Features & benefits

Flow rate adjustment

- Ergonomic knob with clear gauge for manually operated air purge
- Automatic variation via Aktua electrical actuator (optional).

Cartridge valves

In order to ensure maximum dosing precision, even for small flow rates, double and triple ball configurations are available with high-precision seats. The metal gaskets for the SS316L stainless-steel heads, and the FPM gaskets for those in plastic, guarantee maximum compatibility.



Built-in relief valve

Protects the pump against unexpected overpressure.

Venting system

Aside from guaranteeing automatic venting during operation, the venting system also facilitates pump priming by allowing manually operated air purge.

Double diaphragm with rupture detector

Should one of the two diaphragms rupture, the detector activates a local visual indicator or signal. In this emergency situation, the pump continues running and allows for the necessary maintenance intervention to be scheduled.

Tork TY

Hydraulic double diaphragm dosing pump

Tork series hydraulic diaphragm dosing pumps are designed with a heavy-duty design, high safety and exceptional control. The broad variety of heads execution offers a wide selection of dosing pumps to cover practically any application need.

- Flow rate range: 2.8 - 3,740 l/h, up to 40 bar
- Wetted parts: PVDF, PTFE, SS316, FPM and ceramic

- Low-noise integral gearbox, worm type, oil bath lubricated
- Reduced energy consumption based on low friction rolling bearings design
- Precise stroke length adjustment both manually and/or automatically actuated.
- Linearity and repeatability uniquely appointed to provide stable performance..
- Easy in situ installation of electrical servomotor on manual stroke adjustment mechanism.

Diaphragm pump head

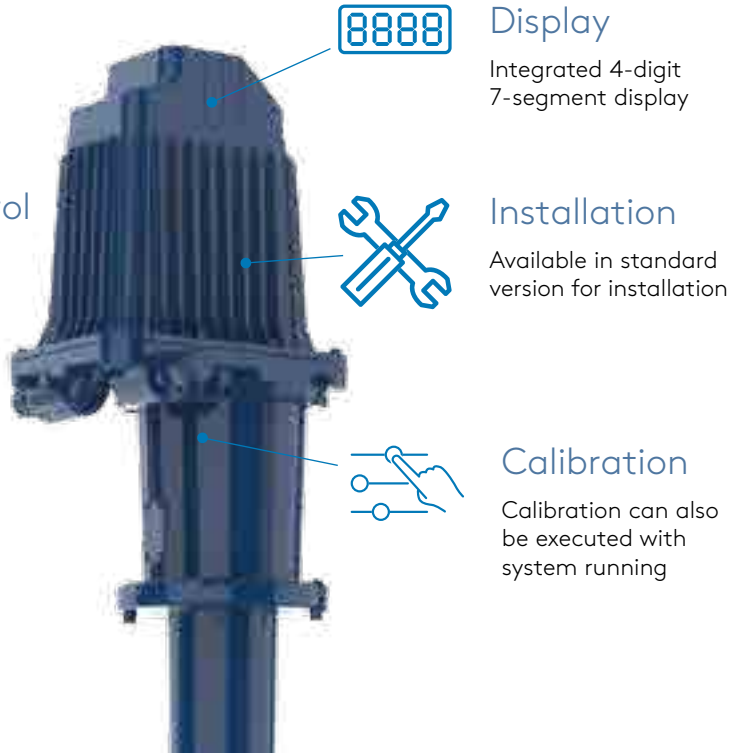
- High capacity flexibility
- Easy-to-change spare parts (all single cartridge solutions)
- Maximum compatibility PTFE diaphragm
- Visual or remote diaphragm failure detection

Aktua (optional)

Electromechanical actuator for precise dosing pump stroke control

The Aktua series is designed for SEKO dosing pumps, replacing manual flow rate control with an automatic, remote system that adjusts stroke length. SEKO's advanced electrical actuator delivers precise digital control for highly accurate and flexible pump regulation.

- 4 – 20 mA signal and feedback
- 24 VDC or 230 VAC applicable power supply
- 50 Hz or 60 Hz optional frequency
- Absolute encoder
- IP66 ingress protection



Display

Integrated 4-digit 7-segment display

Installation

Available in standard version for installation

Calibration

Calibration can also be executed with system running

Tork TY key code

Model

T Tork

Pump head type

Y Hydraulic double diaphragm

Plunger diameter [Ø mm]		for mechanism
12	12	N0
15	15	N0
20	20	N0
25	25	N0
30	30	N1
35	35	N0
40	40	N1
50	50	N0/N1
70	70	N1/N2
90	90	N1/N2
A0	100	N3
C0	120	N2

Mechanism model	Stroke length [mm]
N0	10
N1	25
N2	35
N3	50

Pump head	Head	Diaphragm	Ball	Valve seal	Valve seat
4J	PVDF	PTFE	Ceramic	FPM	PVDF
2F	SS316	PTFE	SS316	SS316	SS316

Valve type

A Single ball

B Double balls

General options

7 Standard threaded connection BSPP

Flow rate adjustment

M Manual with adjustment knob - standard

E Electric actuator

Gear ratio

A 1:7

D 1:12

F 1:15

I 1:20

V 1:8.5

Motor poles/phases

4 4/3

6 6/3

Motor power	kW
O	without motor
B	0.18
D	0.37
E	0.55
F	0.75
G	1.1
H	1.5
I	2.2
J	3.0
K	4.0
L	5.5

Pump head options

V Visual diaphragm failure detection

Other options

0 Standard

Other options

N Standard

T	Y	50	N1	4J	A	7	M	F	4	G	V	0	N

Tork TY N0 PVDF specification

Model	Frequency [stroke/m]	Max flow rate [l/h]	Max pressure [bar]	IRV max set pressure [bar]	Motor [kW]	Motor frame	Number of motor poles
TY12N04JBBMI6BV0N	47	2.9	20	24	0.18	71	6
TY15N04JBBMI4BV0N	70	6.9				63	4
TY20N04JBBMI4BV0N		12.3					
TY25N04JBBMF4BV0N	93	25.3					
TY35N04JBBMF4BV0N		49.7	19	23			
TY50N04JBBMF4BV0N		104	9	11			
TY50N04JBBMA4DV0N	165	185			0.37	71	

Tork TY N0 SS316 specification

Model	Frequency [stroke/m]	Max flow rate [l/h]	Max pressure [bar]	IRV max set pressure [bar]	Motor [kW]	Motor frame	Number of motor poles
TY12N02FBBMI6BV0N	47	2.8	40	48	0.18	71	6
TY15N02FBBMI4BV0N	70	6.7				63	4
TY20N02FBBMI4BV0N		11.9					
TY25N02FBBMF4BV0N	93	18.8	39	45			
TY35N02FBBMF4BV0N		49.7	19	23			
TY50N02FBBMF4BV0N		104	9	11			
TY50N02FBBMA4DV0N	165	185			0.37	71	

Tork TY N1 PVDF specification

Model	Frequency [stroke/m]	Max flow rate [l/h]	Max pressure [bar]	IRV max set pressure [bar]	Motor [kW]	Motor frame	Number of motor poles
TY30N14JABMD4EV0N	117	117	20	24	0.55	80	4
TY40N14JABMF4FV0N	93	165			0.75		
TY50N14JABMF4FV0N		258					
TY70N14JABMF4GV0N		518	12	14	1.1	90	
TY90N14JABMF4GV0N		861	7	9			
TY90N14JABMA4HV0N	200	1830			1.5		

Tork TY N1 SS316 specification

Model	Frequency [stroke/m]	Max flow rate [l/h]	Max pressure [bar]	IRV max set pressure [bar]	Motor [kW]	Motor frame	Number of motor poles
TY30N12FABMD4FV0N	117	113	40	48	0.75	80	4
TY40N12FABMF4GV0N	93	161	36	44	1.1	90	
TY50N12FABMF4GV0N		257	23	28			
TY70N12FABMF4GV0N		516	12	14			
TY90N12FABMF4GV0N		863	7	9			
TY90N12FABMA4HV0N	200	1771			1.5		

Tork TY N2 PVDF specification

Model	Frequency [stroke/m]	Max flow rate [l/h]	Max pressure [bar]	IRV max set pressure [bar]	Motor [kW]	Motor frame	Number of motor poles
TY70N24JABMD4IV0N	117	910	19	23	2.2	100	4
TY90N24JABMF4IV0N	93	1200	11	14			
TYC0N24JABMF4IV0N		2065	6	8			
TYC0N24JABMV6IV0N	111	2570				112	6

Tork TY N2 SS316 specification

Model	Frequency [stroke/m]	Max flow rate [l/h]	Max pressure [bar]	IRV max set pressure [bar]	Motor [kW]	Motor frame	Number of motor poles
TY70N22FABMD4IV0N	117	922	19	23	2.2	100	4
TY90N22FABMF4IV0N	93	1210	11	14			
TYC0N22FABMF4IV0N		2150	6	8			
TYC0N22FABMV6IV0N	111	2570				112	6

Tork TY N3 PVDF Specification

Model	Frequency [stroke/m]	Max flow rate [l/h]	Max pressure [bar]	IRV max set pressure [bar]	Motor [kW]	Motor frame	Number of motor poles
TYA0N34JABMD4LV0N	117	2650	15	20	5.5	132	4
TYA0N34JABMA6LV0N	134	3030	10	15			6
TYA0N34JABMV4LV0N	165	3740		14			4

Tork TY N3 SS316 specification

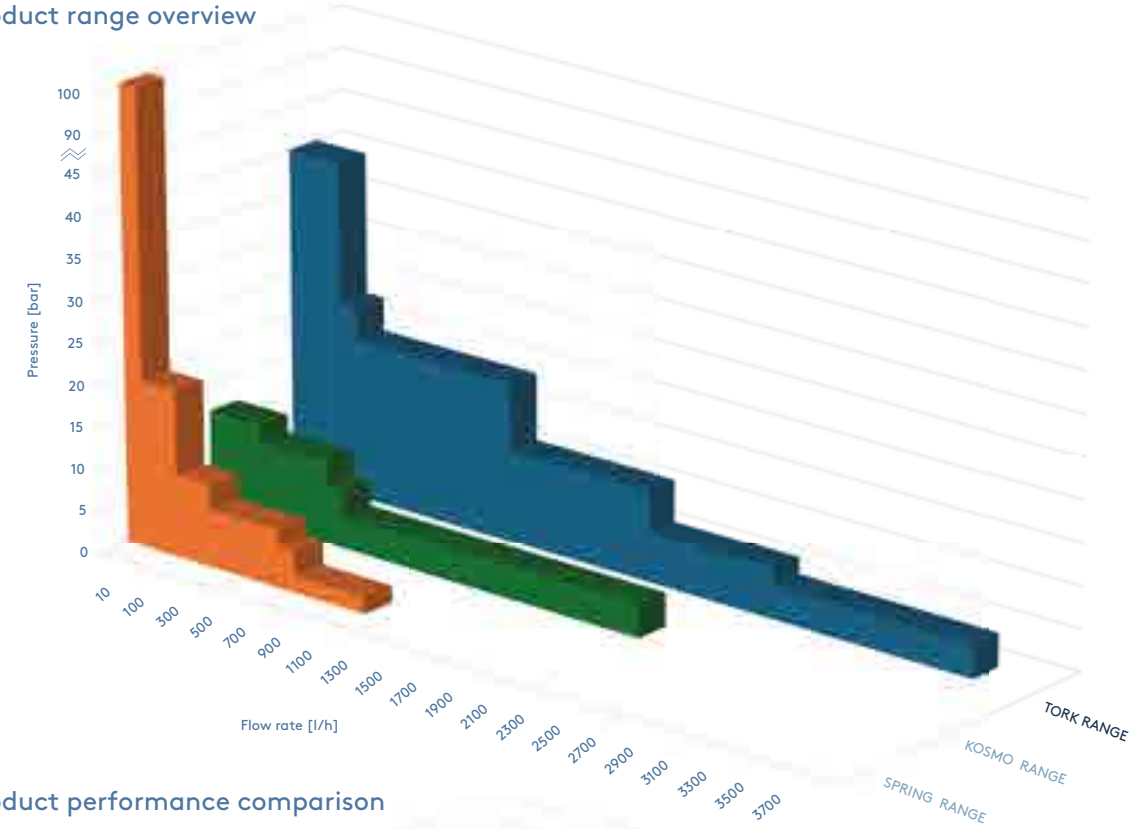
Model	Frequency [stroke/m]	Max flow rate [l/h]	Max pressure [bar]	IRV max set pressure [bar]	Motor [kW]	Motor frame	Number of motor poles
TYA0N32FABMD4LV0N	117	2650	15	20	5.5	132	4
TYA0N32FABMA6LV0N	134	3030	10	15			6
TYA0N32FABMV4LV0N	165	3740		14			4

Key advantages of the Tork pump:

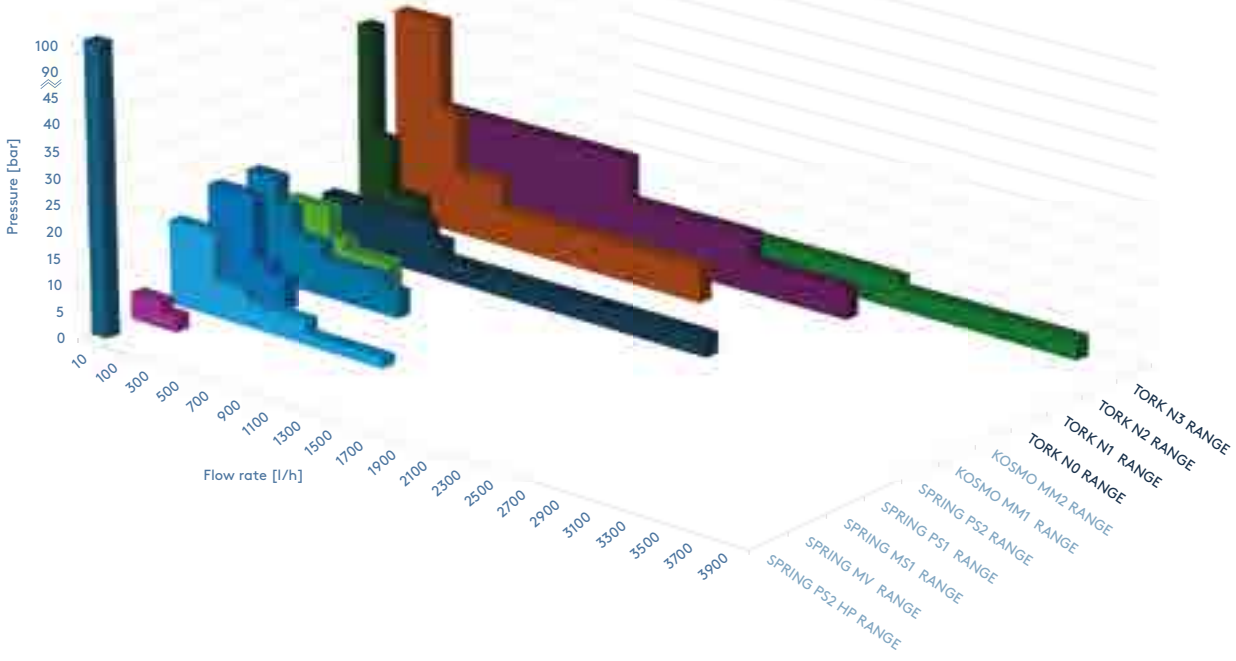
- **Enhanced flow range:** Tork offers a broader and more stable flow rate range, as illustrated in the performance graphs below.
- **Stronger chemical resistance:** Built with premium materials for aggressive fluid handling, Tork withstands harsher environments with ease.
- **Improved accuracy:** With fine-tuned stroke control and precise metering capabilities, Tork reduces waste and optimises chemical use.
- **Higher pressure handling:** Tork manages higher operating pressures, making it ideal for more demanding industrial applications.

See the difference – the performance curve displayed demonstrates how Tork outperforms across multiple operating conditions.

Product range overview



Product performance comparison



For precision, consistency and reliability, choose Kosmo

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.

A wide range of applications

Suitable for a wide range of applications including a variety of water-treatment processes, Kosmo can be effectively used in any of the following:

- **Potable water treatment** (injection of coagulants, flocculating agents, sodium hypochlorite, lime slurry, acid, bases, caustic soda, activated carbon and more)
- **Domestic or industrial** wastewater treatment, boiler feed water and cooling water
- **Chemical treatment, electrolytic** (electro-plating) treatments: addition of degreasing agents, cleaning agents, nickel electroplating and chemical nickel plating, copper plating and tinning

Features & benefits

Ideal for prolonged, continuous usage

As with all SEKO pumps, Kosmo is designed using materials chosen for their robustness and chemical compatibility and is conceived to work for long periods of continuous operation thanks to the benefits derived from its variable eccentric system. SEKO's Kosmo PTFE diaphragm is directly linked to the mechanism's moving parts meaning Kosmo can easily deal with high suction head conditions.

All components feature permanent lubrication, using ball bearings for the principal moving parts to help prevent overheating and extend the pump's life, with the added benefit of quiet running.

Ideal when you need high flow rates at medium/low discharge pressures

The Kosmo range comprises two principal models, MM1 and MM2, and is designed to be compact and robust. Kosmo offers great performance across a wide range of flow rates as low as 9 l/h up to 2,300 l/h. This makes Kosmo ideal for low discharge pressures in applications such as water treatment, food production and clean-in-place.

Kosmo MM2

Mechanical-return diaphragm dosing pump

- Flow rate range: 80 - 2,300 l/h, up to 10 bar
- Wetted parts: SS316L, PVDF, PTFE, FPM, EPDM and Ceramic

- Among the Kosmo pump range, the MM2 series pumps provide superior dosing performance, making them suitable for the most demanding applications. Constructed in hard-wearing metal with a cast-aluminium housing, Kosmo MM2 can handle the largest output with flow rates as high as 2,300 l/h, at pressures up to 10 bar.
- As with all SEKO pumps Kosmo is designed using materials chosen for their robustness and chemical compatibility and is conceived to work for long periods of continuous operation thanks to the benefits derived from its variable eccentric system. SEKO's Kosmo PTFE diaphragm is directly linked to the mechanism's moving parts, meaning Kosmo makes use of the motor's power both in the suction and delivery phases which allows it to deal with high suction head conditions.
- All components feature permanent lubrication, using ball bearings for the principal moving parts to help prevent overheating and extend pump life with the added benefit of quiet-running operation.

Specification

Model	Diameter [mm]	Stroke length [mm]	Frequency [stroke/1']	Flow rate [l/h]	Max pressure [bar]	Connections SS316L	Connections PVDF	Motor/3ph [kW/pole]	Weight [kg]	Packing size L x W x H [mm]
MM2F124D**C40000	124	7	43	80	10	BSPf ¾"	BSPf ¾"	0.55/4	56	700 x 500 x 750
MM2F124F**C40000			131	250						
MM2G124G**C40000		8	175	450						
MM2G140G**C40000	140			600	7	BSPf 1"	BSPf 1"		60	
MM2H157G**C40000	157	9		1,000	4					
MM2I179F**D40000	179	15	131	1,600		BSPf 1 ½"	BSPf 1 ½"	0.75/4	68	
MM2I179G**E40000			175	2,300				1.1/4		

Kosmo MM2 key code

Model

M — Diaphragm Pump

Mechanism type

M2 — Mechanical return (large mechanism)

Stroke length [mm]

F	7
G	8
H	9
I	15

Diaphragm diameter [Ø mm]

124	124
140	140
157	157
179	179

Stroke/1'	(With 4-pole motor)	Ratio
D	43	32:1
E	86	32:2
F	131	32:3
G	175	32:4

Pump head	Body	Balls	Diaphragm	Seat	O-Ring
21	SS316L	SS316L	PTFE	SS316L	FPM
24	SS316L	SS316L	PTFE	SS316L	EPDM
41	PVDF	Ceramic	PTFE	PVDF	FPM
44	PVDF	Ceramic	PTFE	PVDF	EPDM

Motor power	kW	Supply	Size
0		Without motor	
C	0.55	230 - 400 Vac	80-B5
D	0.75	230 - 400 Vac	80-B5
E	1.1	230 - 400 Vac	90S-B5

Motor poles/phases

0	Without motor
2	2/3
4	4/3

Optional

0	Standard
S	Servoventilated

Customisation

000	Standard

M	M2	G	124	G	24	C	4	0	000

Kosmo MM1

Mechanical-return diaphragm dosing pump

- Flow rate range: 9 - 530 l/h, up to 12 bar
- Wetted parts: SS316L, PVDF, PTFE, FPM, EPDM and Ceramic

- Featuring characteristics and functions very similar to those of the MM2 models, the MM1 systems of the Kosmo range have smaller dimensions and can be used effectively where the required flow rates are lower, but it is necessary to work at slightly higher pressures. In fact, these pumps can handle flow rates of up to 530 l/h and can work at pressures up to 12 bar.
- These models are manufactured from materials that deliver superior robustness and chemical compatibility and are designed to operate continuously for long periods, thanks in part to the benefits of the variable eccentric system. The PTFE diaphragm is directly connected to the mechanism and this allows the pump to exploit the power of the motor both in suction and delivery phases, allowing it to work even in high suction head conditions.
- All components benefit from permanent lubrication, using ball bearings for the principal moving parts that help prevent overheating and extend pump life with the added benefit of quiet running.

Specification

Model	Diameter [mm]	Stroke length [mm]	Frequency [stroke/1']	Flow rate [l/h]	Max pressure [bar]	Connections		Motor/3ph [kW/pole]	Weight [kg]	Packing size L x W x H [mm]
						SS316L	PVDF			
MM1A065A**A40000	65	2	116	9	12	BSPf ¼"	8x12 PE hose	0.25 / 4	16	450 x 300 x 550
MM1C096B**A40000	96	4	78	53	10	BSPf ⅜"	DN 10			
MM1D124B**B40000	124	6.4		170	7	BSPf ¾"	DN 20	0.37 / 4	20	
MM1D124B**B20000			156	340	5					
MM1E140B**B20000	140	7.4		530		BSPf 1."	DN 25			

Kosmo MM1 key code

Model									
M	Diaphragm pump								
Mechanism type									
M1	Mechanical return (small mechanism)								
Stroke length [mm]									
A	2								
C	4								
D	6.4								
E	7.4								
Diaphragm diameter [Ø mm]									
065	65								
096	96								
124	124								
140	140								
Stroke/1'	(With 4-pole motor)	Ratio							
A	58	24:1							
B	78	18:1							
C	116	12:1							
Pump head		Body	Balls	Diaphragm	Seat	O-Ring			
21		SS316L	SS316L	PTFE	SS316L	FPM			
24		SS316L	SS316L	PTFE	SS316L	EPDM			
41		PVDF	Ceramic	PTFE	PVDF	FPM			
44		PVDF	Ceramic	PTFE	PVDF	EPDM			
Motor power		kW	Supply	Size					
0			Without motor						
A		0.25	230 - 400 Vac	71-B5					
B		0.37	230 - 400 Vac	71-B5					
Motor poles/phases									
0	Without motor								
2	2/3								
4	4/3								
Optional									
0	Standard								
S	Servoventilated								
Customisation									
000	Standard								

M	M1	C	096	B	41	A	4	0	000

Spring series: Robust and reliable motor-driven dosing for water and industry

Featuring a spring return mechanism in an aluminium housing, these pumps always deliver robust, affordable and efficient power.

- SEKO's entry-level offering in motor-driven pumps is the Spring series, a range of pumps based on the spring return principle. 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 under varying pressure conditions.
- Available both in plunger piston and mechanically actuated diaphragm versions, SEKO's Spring pumps can be used almost universally in low-pressure applications and guarantee, in the membrane version, a zero-leakage dosing solution. Meanwhile, these systems offer flexibility in stroke length and motor speed, and can be coupled in various combinations.

A wide range of applications

Suitable for a wide range of applications including a variety of water-treatment processes, Spring can be effectively used in any of the following:

Chemical treatment, electrolytic (electro-plating) treatments: addition of degreasing agents, cleaning agents, nickel electroplating and chemical nwickel plating, copper plating and tinning

Potable water treatment (injection of coagulants, flocculating agents, sodium hypochlorite, lime slurry, acid, bases, caustic soda, activated carbon and more)

Domestic or industrial wastewater treatment, boiler feed water and cooling water

Features & benefits

Optional extras

Almost all models are also available in the Elektra version which, thanks to integration with an inverter including 4 - 20 mA and pulse inputs, allows them to be managed with menus and functions typical of proportional dosing pumps

Ultra-reliable Spring range

The Spring range includes a broad range of hydraulic configurations, reaching high flow rates up to 1,000 l/h, and back-pressure up to 20 bar

Low operating costs

Due to the outstanding ease of programming coupled with low maintenance requirement

Diaphragm options

Mechanical diaphragm in PTFE

Energy-efficient motors

A wide range of motors available to meet your application requirements

Chemical applications

A wide range of materials available for superior chemical compatibility and suitable for high-viscosity chemical applications

Piston options

Piston available as standard in SS316 or ceramic

Spring PS2

Spring-return plunger piston dosing pump

- Flow rate range: 40 - 1,000 l/h, up to 20 bar
- Wetted parts: SS316L, PVC, PTFE, FPM, EPDM and Ceramic

- The PS2 series of piston dosing pumps offers multiple combinations of pump head, motor power and stroke lengths that enable it to be arranged in several hydraulic configurations, making the range suitable for multiple applications.
- PS2 pumps have a spring-return mechanism in a robust aluminium housing, and each model can be configured with two different stroke rates. To adjust the flow rate of the pump, the stroke length can be adjusted manually or even automatically, by using the Aktua kit controlled by a 4 - 20 mA signal or by a pulse-emitting water meter.
- PS2 pumps are available with a 3-phase or a single-phase electric motor, both with IP55 protection.

Specification

Model	Diameter [mm]	Stroke length [mm]	Frequency [stroke/1']	Flow rate [l/h]	Max pressure [bar] SS316L	Max pressure [bar] PVC	Connections SS316L	Connections PVC	Motor [kW/pole]	Weight [kg] SS316L	Weight [kg] PVC	Packing size L x W x H [mm]
PS2E025A**T4000	25	25	58	40	20	10	BSPf ⅜"	BSPf ⅜"	0.25/4 (T4)	15.5	14.5	520 x 350 x 590
PS2E025C**T4000			116	80								
PS2E030A**T4000	30		58	55	20	10	BSPf ⅜"	BSPf ⅜"	0.25/4 (T4)	15.5	14.5	
PS2E030C**T4000			116	112								
PS2E038A**U4000	38		58	90	20	10*	BSPf ½"	BSPf ½"	0.37/4 (U4)	18.5	15.5	
PS2E038C**U4000			116	180								
PS2E048A**D4000	48		58	140	20	10	BSPf ½"	BSPf ½"	0.55/4 (D4)	18.5	15.5	
PS2E048C**D4000			116	284								
PS2E054A**D4000	54		58	180	15	10	BSPf ½"	BSPf ½"	0.55/4 (D4)	20.5	16.0	
PS2E054C**D4000			116	365								
PS2E064A**E4000	64		58	250	10	10	BSPf ¾"	BSPf ¾"	0.75/4 (E4)	21.5	16/5	
PS2E064C**E4000			116	505								
PS2E076A**E4000	76		58	365	7	7	BSPf 1"	BSPf 1"	0.75/4 (E4)	28.5	18.5	650 x 300 x 560
PS2E076C**E4000			116	730								
PS2E089A**E4000	89		58	495	5	5	BSPf 1"	BSPf 1"	0.75/4 (E4)	30.5	19.0	
PS2E089C**E4000			116	1,000								

* Available with special Enforced Pump Head for use up to 16 bar

Spring PS2 key code

Model									
P	Piston pump								
Mechanism type									
S2	Spring return								
Stroke length [mm]									
E	25								
Piston diameter [Ø mm]									
025	25								
030	30								
038	38								
048	48								
054	54								
064	64								
076	76								
089	89								
Stroke/1'		Ratio							
A	58	24:1							
C	116	12:1							
Pump head	Body	Balls	Piston	Seat	Sealings				
21	SS316L	SS316L	SS316L	SS316L	FPM				
24	SS316L	SS316L	SS316L	SS316L	EPDM				
31	PVC	Ceramic	Ceramic	PTFE	FPM				
34	PVC	Ceramic	Ceramic	PTFE	EPDM				
Motor type	kW	Supply	Size						
S0	Without motor								
T4	0.25 - 3ph	230 - 400 Vac, 50/60 Hz	71-B5						
U4	0.37 - 3ph	230 - 400 Vac, 50/60 Hz	71-B5						
D4	0.55 - 3ph	230 - 400 Vac, 50/60 Hz	80-B14						
E4	0.75 - 3ph	230 - 400 Vac, 50/60 Hz	80-B14						
Z4	0.37 - 1ph	230 Vac, 50 Hz	71-B5						
L4	0.55 - 1ph	230 Vac, 50 Hz	80-B14						
M4	0.75 - 1ph	230 Vac, 50 Hz	80-B14						
N4	1.1 - 1ph	230 Vac, 50 Hz	71-B14	With breaker torque					
Stroke regulation									
0	Manual with adjustment knob								
L	Automatic, with linear actuator of Aktua series								
Customisation									
0	Standard								
H	High pressure								
Optional									
0	Standard								
2	(S0 - without motor) + adapter kit								

P	S2	E	038	C	21	U4	0	0	0

Spring PS2 HP

Spring plunger piston dosing pump for high pressure

- Flow rate range: 1.5 - 12 l/h, up to 100 bar
- Wetted parts: SS316L, PTFE, NBR

- The PS2 HP series of high-pressure piston dosing pumps can adapt to a large number of applications. Like other variants in the Spring pump series, PS2-HP has a spring-return mechanism in a sturdy aluminium housing but is equipped with special pump bodies, expressly recommended for high-pressure applications that allow this range to dose with backpressures up to 100 bar.
- This model has two stroke rates. Stroke lengths can be set manually with a knob. To achieve the given performance, these pumps need to be actuated by a 3-phase motor, provided with an IP55 protection classification.
- Spring PS2 HP has been designed for use in applications requiring an economic and practical solution for dosing small amounts of product at high pressure, up to 100 bar: in a boiler, for example.

Specification

Model	Piston Diameter [mm]	Stroke length [mm]	Frequency [stroke/1']	Flow rate [l/h]	Max pressure [bar]	Connections	Motor [kW/pole]	Weight [kg]	Packing size L x W x H [mm]
PS2E006A20D40H0	6	25	58	1.5	100	BSPm ¼"	0.55/4 (D4)	10	435 x 295 x 520
PS2E006C20D40H0			116	3					
PS2E008A20D40H0	8		58	4					
PS2E008C20D40H0			116	8					
PS2E010A20D40H0	10		58	6					
PS2E010C20D40H0			116	12					

Spring PS2 HP key code

Model									
P	Piston pump								
Mechanism type									
S2	Spring return								
Stroke length [mm]									
E	25								
Piston diameter [Ø mm]									
006	6								
008	8								
010	10								
Stroke/1'		Ratio							
A	58	24:1							
C	116	12:1							
Pump head		Head	Piston	Valves	Seat valves	Seal valves	Piston seal		
20		SS316L	SS316L	SS316L	SS316L	PTFE	NBR+PTFE		
Motor type		kW	Supply			Size			
S0		Without motor							
D4		0.55 - 3ph	230 - 400 Vac, 50/60 Hz			80-B14			
Stroke regulation									
0		Manual with adjustment knob							
Customisation									
H		High pressure							
Optional									
0		Standard							

P	S2	E	010	C	20	D4	0	H	0

Spring PS1

Spring-return plunger piston dosing pump

- Flow rate range: 1.5 - 304 l/h, up to 20 bar
- Wetted parts: SS316L, PVC, PTFE, FPM, EPDM and Ceramic

- The PS1 series is designed for applications that require lower flow rates than the PS2 series while offering multiple combinations of pump head, motor power and piston stroke length. This achieves multiple hydraulic characteristics for adapting to a large number of applications.
- Like PS2, each model can be configured with two different stroke rates and is available with 3-phase or single-phase motors, both with IP55 protection.
- Versions with a 12 Vdc motor are available that achieve flow rates between 34 and 350 l/h at pressure up to 20 bar.

Specification

Model	Diameter [mm]	Stroke length [mm]	Frequency [stroke/1′]	Flow rate [l/h]	Max pressure [bar] SS316L	Max pressure [bar] PVC	Connections SS316L	Connections PVC	Motor [kW/pole]	Weight [kg] SS316L	Weight [kg] PVC	Packing size L x W x H [mm]
PS1D006A**A4000	6	25	58	1.5	20	10	BSPf ¼″	BSPf ¼″	0.18/4 (A4)	10.0	8.5	435 x 295 x 520
PS1D006C**A4000			116	3								
PS1D011A**A4000	11		58	5	20	10*	BSPf ¼″	BSPf ¼″	0.18/4 (A4)	10.0	8.5	
PS1D011C**A4000			116	10								
PS1D017A**A4000	17		58	11	20	10*	BSPf ⅜″	BSPf ⅜″	0.18/4 (A4)	10.0	8.5	
PS1D017C**A4000			116	22								
PS1D025A**A4000	25		58	25	20	10*	BSPf ⅜″	BSPf ⅜″	0.18/4 (A4)	10.0	8.5	
PS1D025C**A4000			116	50								
PS1D030A**B4000	30		58	35	20	10*	BSPf ⅜″	BSPf ⅜″	0.25/4 (B4)	11.5	10.0	
PS1D030C**B4000			116	70								
PS1D038A**B4000	38		58	55	17	10*	BSPf ⅜″	BSPf ⅜″	0.25/4 (B4)	13.0	10.0	520 x 350 x 590
PS1D038C**B4000			116	110								
PS1D048A**B4000	48		58	85	10	10	BSPf ½″	BSPf ½″	0.25/4 (B4)	13.0	10.0	
PS1D048C**B4000			116	170								
PS1D054A**B4000	54		58	110	8	8	BSPf ½″	BSPf ½″	0.25/4 (B4)	15.0	10.5	
PS1D054C**B4000			116	220								
PS1D064A**B4000	64		58	152	6	4	BSPf ¾″	BSPf ¾″	0.25/4 (B4)	16.0	15	
PS1D064C**B4000			116	304								

* Available with special Enforced Pump Head for use up to 20 bar

Spring PS1 key code

Model									
P	Piston pump								
Mechanism type									
S1	Spring return								
Stroke length [mm]									
D	15								
Piston diameter [Ø mm]									
006	6								
011	11								
017	17								
025	25								
030	30								
038	38								
048	48								
054	54								
064	64								
Stroke/1'		Ratio							
A	58	24:1							
C	116	12:1							
Pump head		Body	Balls	Piston	Seat	Sealings			
21		SS316L	SS316L	SS316L	SS316L	FPM			
24		SS316L	SS316L	SS316L	SS316L	EPDM			
31		PVC	Ceramic	PTFE	PTFE	FPM			
34		PVC	Ceramic	PTFE	PTFE	EPDM			
Motor type		kW		Supply		Size			
S0		Without motor							
A4		0.18 - 3ph		230 - 400 Vac, 50/60 Hz		63-B14			
B4		0.25 - 3ph		230 - 400 Vac, 50/60 Hz		71-B14			
H4		0.25 - 1ph		230 Vac, 50 Hz		71-B14			
I4		0.37 - 1ph		230 Vac, 50 Hz		71-B14			
Stroke regulation									
0	Manual with adjustment knob								
L	Automatic with linear actuator of Aktua series								
Customisation									
0	Standard								
H	High pressure								
Optional									
0	Standard								
2	(S0 - without motor) + adapter kit								

P	S1	D	011	C	31	A4	L	0	0

Spring MS1 AVS

Spring-return diaphragm pump with Assisted Vacuum System®

- Flow rate range: 450 - 1,200 l/h, up to 4.5 bar
- Wetted parts: SS316L, PVC, PP, PVDF, PTFE, FPM, EPDM and Ceramic

- The AVS (Assisted Vacuum System®) is a technical solution patented by SEKO that helps overcome the typical functional limitations of pumps with a spring return. Using this mechanism allows pump performance to be improved by allowing dosing frequency to be raised (stroke/min) without compromising diaphragm lifespan.
- Thanks to AVS, Spring MS1 AVS can reach a flow rate of 1,200 l/h while keeping noise and mechanical stress at a reduced level. Each model can be configured with two different stroke rates and is supplied with a three-phase 2-pole electric motor with IP55 protection.

Specification

Model	Diameter [mm]	Stroke length [mm]	Frequency [stroke/1']	Flow rate [l/h]	Max pressure [bar]	Connections	Motor [kW/pole]	Weight [kg]		Packing size L x W x H [mm]
								SS316L	Other	
MS1C138H**W200A	138	6	156	450	4.5	BSPF 1"	0.55/2 (W2)	18.5	12.5	520 x 350 x 590
MS1C138Q**W200A			232	750				18.5	12.5	
MS1C165Q**W200A	165		232	1,200	2			22.0	13.5	

Spring MS1 AVS key code

Model										
M	Diaphragm pump									
Mechanism type										
S1	Spring return									
Stroke length [mm]										
C	6									
Diaphragm diameter [Ø mm]										
138	138									
165	165									
Stroke/1'		Ratio								
H	156	18:1								
W	232	12:1								
Pump head		Body	Balls	Diaphragm	Seat	O-Ring				
21		SS316L	SS316L	PTFE	SS316L	FPM				
24		SS316L	SS316L	PTFE	SS316L	EPDM				
31		PVC	Ceramic	PTFE	PTFE	FPM				
34		PVC	Ceramic	PTFE	PTFE	EPDM				
41		PVDF	Ceramic	PTFE	PTFE	FPM				
44		PVDF	Ceramic	PTFE	PTFE	EPDM				
51		PP	Ceramic	PTFE	PTFE	FPM				
54		PP	Ceramic	PTFE	PTFE	EPDM				
Motor type		kW	Supply	Size						
S0		Without motor								
W2		0.55 - 3ph	230 - 400 Vac, 50/60 Hz	71-B14						
Y2		0.55 - 1ph	230 Vac, 50 Hz	71-B14						
Stroke regulation										
0	Manual with adjustment knob									
L	Automatic with linear actuator of Aktua series									
Customisation										
0	Standard									
Optional										
A	AVS - Assisted Vacuum System®									

M	S1	C	165	W	51	W2	0	0	A

Spring MS1

Spring-return mechanical diaphragm dosing pump

- Flow rate range: 5.5 - 500 l/h, up to 16 bar
- Wetted parts: SS316L, PVC, PP, PVDF, PTFE, FPM, EPDM and Ceramic

- The MS1 series offers multiple combinations of pump head motors, stroke lengths and materials that allows operators the chance to select the optimal combination appropriate to the specific application in hand.
- Being membrane pumps, they represent an absolutely safe and leak-free solution to be used wherever chemical leaks, that are typical of plunger piston pumps, are not acceptable.
- To change the flow rate of the pump, the stroke length can be adjusted manually with a knob or even automatically by using the Aktua kit controlled by a 4 - 20 mA signal or by a pulse emitter water meter.
- Spring MS1 pumps can be supplied with a single or three-phase electric motor with IP55 protection, as well as with a DC motor working at 12 Vdc range that allows the pump to achieve flow rates between 23 and 620 l/h at pressure up to 16 bar.

Specification

Model	Diameter [mm]	Stroke length [mm]	Frequency [stroke/1']	Flow rate [l/h]	Max pressure [bar] SS316L	PP/ PVC	PVDF	Connections SS316L	Other	Motor [kW/pole]	Weight [kg] SS316L	Other	Packing size L x W x H [mm]
MS1A064A**A4000	64	2	58	5.5	16	10	10	BSPf ¼"	BSPf ¼"	0.18/4 (A4)	10.5	8.5	520 x 350 x 590
MS1A064B**A4000			78	8									
MS1A064C**A4000			116	11									
MS1A094A**A4000	94		58	20	16	10*	10*	BSPf ⅜"	BSPf ¼"	0.18/4 (A4)	11.0	8.5	
MS1A094B**A4000			78	26									
MS1A094C**A4000			116	40									
MS1B108A**A4000	108	4	58	60	10	10*	10*	BSPf ⅜"	BSPf ⅜"	0.18/4 (A4)	13.5	10.0	
MS1B108B**A4000			78	80									
MS1B108C**A4000			116	120									
MS1C138A**C4000	138	6	58	155	7	7	7	BSPf ¾"	BSPf ¾"	0.37/4 (C4)	18.5	12.5	
MS1C138B**C4000			78	220									
MS1C138C**C4000			116	310				BSPf 1"	BSPf 1"				
MS1C165A**C4000	165		58	230	5	5	5	BSPf 1"	BSPf 1"	0.37/4 (C4)	22.0	13.5	
MS1C165B**C4000			78	330									
MS1C165C**C4000			116	500	3	3	3						

* Available with special Enforced Pump Head for use up to 16 bar

Spring MS1 key code

Model									
M	Diaphragm pump								
Mechanism type									
S1	Spring return								
Stroke length [mm]									
A	2								
B	4								
C	6								
Diaphragm diameter [Ø mm]									
064	64								
094	94								
108	108								
138	138								
165	165								
Stroke/1'		Ratio							
A	58	24:1							
B	78	18:1							
C	116	12:1							
Pump head	Body	Balls	Diaphragm	Seat	O-Ring				
21	SS316L	SS316L	PTFE	SS316L	FPM				
24	SS316L	SS316L	PTFE	SS316L	EPDM				
31	PVC	Ceramic	PTFE	PTFE	FPM				
34	PVC	Ceramic	PTFE	PTFE	EPDM				
41	PVDF	Ceramic	PTFE	PTFE	FPM				
44	PVDF	Ceramic	PTFE	PTFE	EPDM				
51	PP	Ceramic	PTFE	PTFE	FPM				
54	PP	Ceramic	PTFE	PTFE	EPDM				
Motor type	kW	Supply	Size						
S0	Without motor								
A4	0.18 - 3ph	230 - 400 Vac, 50/60 Hz	63-B14						
C4	0.37 - 3ph	230 - 400 Vac, 50/60 Hz	71-B14						
H4	0.25 - 1ph	230 Vac, 50 Hz	71-B14						
L4	0.55 - 1ph	230 Vac, 50 Hz	80-B14						
Stroke regulation									
0	Manual with adjustment knob								
L	Automatic with linear actuator of Aktua series								
Customisation									
0	Standard								
H	High pressure								
Optional									
0	Standard								
2	(S0 - without motor) + adapter kit								

M	S1	B	094	A	51	C4	0	0	0

Spring MSV

Spring-return diaphragm dosing pump

- Flow rate range: 10 - 120 l/h, up to 5 bar
- Wetted parts: SS316L, PVDF, PTFE, FPM, EPDM and Ceramic

- MSV pumps are the latest addition to the Spring range. These diaphragm dosing pumps are designed to ensure reliable and effective long-term dosing of chemicals at an affordable cost. They feature motorised mechanisms with high-performance, high-efficiency motors, mounted vertically over their PP casing to save space, especially where pumps are installed adjacent to one another.
- Thanks to its double-camshaft mechanical structure, the pump offers high levels of stability while maintaining quiet operation and exceptionally accurate flow rates.
- Adaptable to a wide range of uses, Spring MSV stands as an excellent compromise between cost and a high dosing accuracy across a wide variety of liquids, sludge and chemicals.

Specification

Model	Diameter [mm]	Stroke length [mm]	Frequency [stroke/1']	Flow rate [l/h]	Max pressure [bar]		Connections		Motor [kW/pole]	Weight [kg]	Packing size L x W x H [mm]
					SS316L	PVDF	SS316L	PVDF			
MSVI070P**XD000	70	4.2	26	10	5	5	BSPf ⅜"	8x12	0.06/4 (XD)	9.5	370 x 280 x 470
MSVI070O**XD000			43	20							
MSVI070N**XD000			86	40							
MSVI070M**XD000			130	60							
MSVF070R**XD000		5	144	90							
MSVH070R**XD000		6.8	144	120	3	3					

Spring MSV key code

Model

M — Diaphragm pump

Mechanism type

SV — Spring return [vertical motor]

Stroke length [mm]

I	4.2
F	5
H	6.8

Diaphragm diameter [Ø mm]

070 — 70

Stroke/1'

M	130
N	86
O	43
P	26
R	144

Pump head	Body	Balls	Diaphragm	O-Ring
21	SS316L	SS316L	PTFE	FPM
24	SS316L	SS316L	PTFE	EPDM
41	PVDF	Ceramic	PTFE	FPM
44	PVDF	Ceramic	PTFE	EPDM

Motor type	kW	Supply
XT	0.06 - 3ph	230 - 400 Vac, 50/60 Hz
XD	0.06 - 1ph	230 Vac, 50 Hz

Stroke regulation

0 — Manual with adjustment knob

Customisation

0 — Standard

Optional

0 — Standard

M	SV	I	070	N	21	XD	0	0	0

Spring with Elektra

Spring pumps with electronic control for proportional dosing

SEKO has harnessed the power of data on demand and the Internet of Things (IoT) to connect its pump users to their equipment like never before with Elektra, a revolutionary controller that provides invaluable live and historical data on demand from any location worldwide.

Currently available for use with the Spring series of motor-driven pumps, Elektra uses a built-in web server to give water-treatment application managers the power to remotely monitor and adjust key pump parameters such as chemical dosage and flow rate via PC, laptop, tablet or smartphone.

This offers vast potential for precise digital dosing, process optimisation and cost control in a vast range of applications.

SEKO brings IoT to mechanical chemical dosing

Features & benefits

Digital control

- **Multiple operating modes** – timed, batch, manual, proportional from analogue or digital signals: 1:N, N:1
- **Intelligent graphic display** – shows red, yellow or green backlight, according to the current operating function
- Electronic control unit interface **can be fixed in multiple positions** to facilitate operation/installation

IoT connection

- **Remote programming and monitoring of** the pump via any internet-connected device including smartphone, tablet or PC
- **Wireless local connection to the pump** is possible even if there is no Wi-Fi at the installation site
- **Data on demand** grants secure remote data management and programming of the pump via the SekoWeb portal or app, from any location worldwide
- **Real-time and historic data available 24/7** directly to any smart device or PC, including alarms to help drive **effective maintenance planning** and rapid technical intervention

Advantages of the Spring series

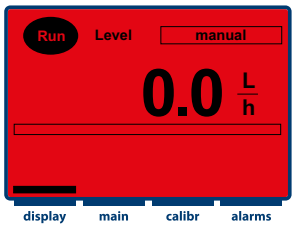
- **Includes a broad range of hydraulic configurations,** reaching high flow rates up to 1,000 l/h, and backpressure up to 20 bar
- **Wide range of applications** - suitable for high-viscosity chemical applications
- **Exceptionally low operating costs** due to the outstanding ease of programming coupled with low maintenance requirement
- **Energy-efficient** motors plus a wide range of materials available for superior chemical compatibility

Spring with Elektra

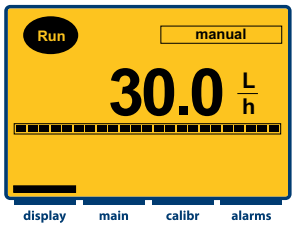
Motor-driven pumps with spring return, electronic control and IoT

Smart graphic display

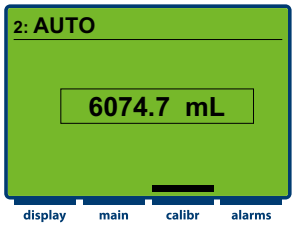
Offers not only a graphic intuitive interface, but also changes colour according to operating function.



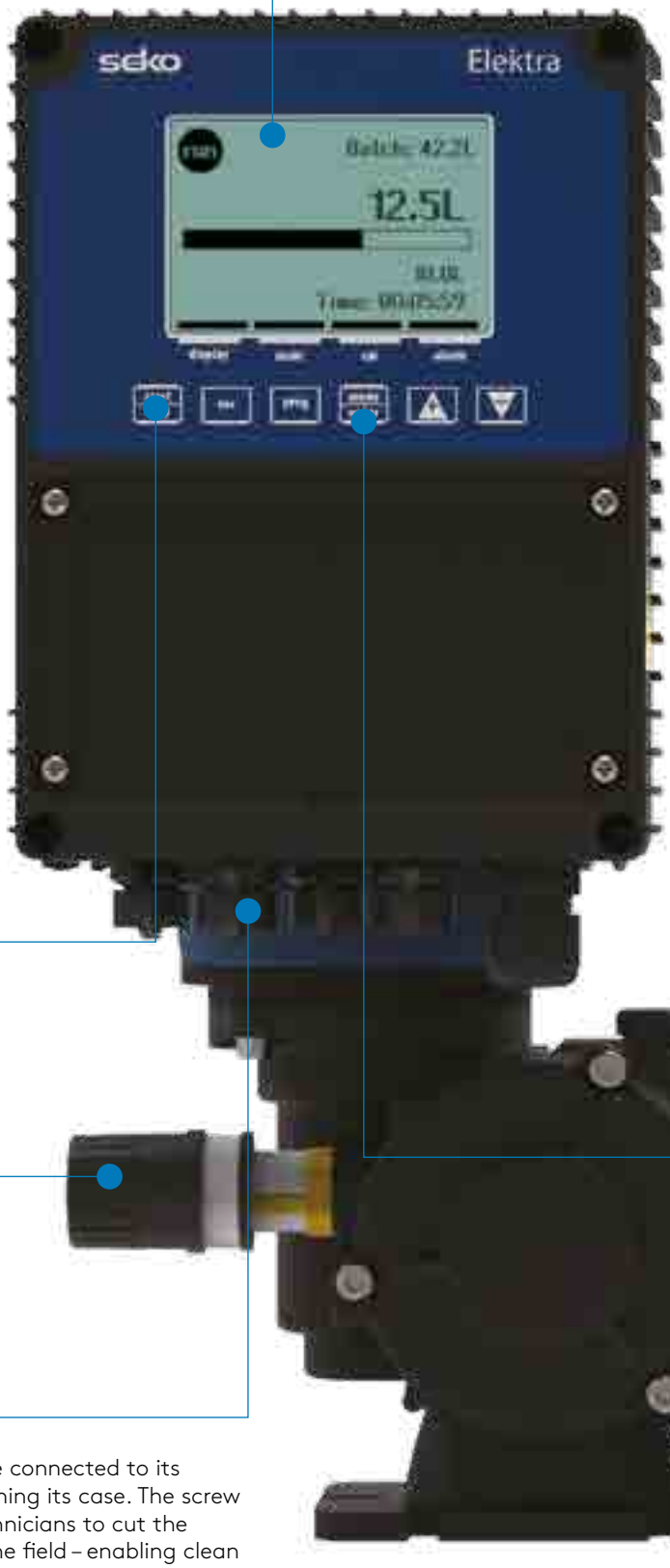
Red - shows alarm mode



Yellow - shows the control unit is connecting to a smart device



Green - shows after the successful completion of a calibration process



Simple fast programming

Elektra's controller allows quick and easy programming from any smart device or laptop, both remotely as well as from the display.

Manual adjustment of stroke length

Provides the ultimate in accuracy when combined with the digital dosing of Elektra's controller.

External connectors

Elektra's external connectors allow the pump to be connected to its accessories and signals from the field without opening its case. The screw terminals available in the plugs supplied allow technicians to cut the connection cables to the right length, directly in the field – enabling clean installations without the need for special tools or excess wiring.

Spring with Elektra technical features

Like all Spring pumps, those equipped with Elektra are based on a spring-return mechanism housed in a sturdy aluminium case, and always provide robust, and effective power. Elektra enhances these benefits by allowing users to link the dosage to signals from the field, and monitor and to programme the pump both locally and via the internet through any smart device or PC.

Hydraulic characteristics

Model	Flow rate [l/h]	Max pressure [bar]	Frequency [stroke/1']	Stroke length [mm]	Diaphragm diameter [mm]	Ingress protection rating
MS1A/B/C Diaphragm pump	up to 500	up to 16	1 - 116	2/4/6	up to 165	IP55
PS1 D Piston pump	up to 304	up to 20	1 - 116	15	up to 64	IP55
PS2 E Piston pump	up to 1,000	up to 20	1 - 116	25	up to 89	IP55

Spring with Elektra key code

Motor type	kW [3ph]	Size
AE	0.18	63-B14
BE	0.25	71-B14
CE	0.37	71-B14
DE	0.55	80-B14
EE	0.75	80-B14
TE	0.25	71-B5
UE	0.37	71-B5

Optional	
N	Elektra - Wi-Fi connection

M	S1	A	094	A	51	CE	0	0	N

Multiple operating modes

- Manual
- Batch
- Timed
- Proportional to mA
- Proportional to V
- PPM
- Proportional to pulses

Spring with Elektra

Motor-driven pumps with spring return, electronic control and IoT

Data on demand

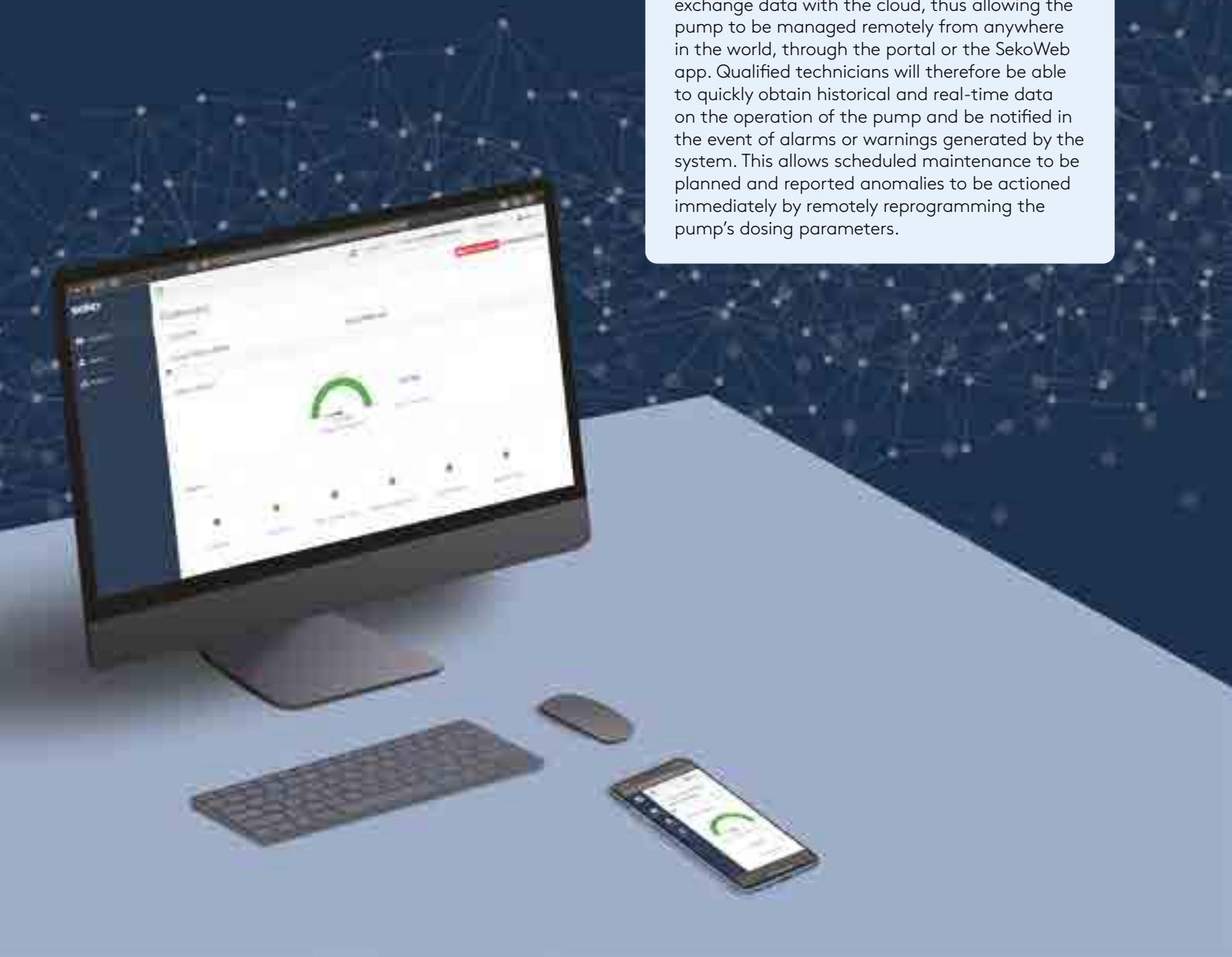
In a world that is increasingly connected, Elektra brings the benefits of data on demand, essential to running an efficient operation across potentially complex installations. Designed to manage operating costs of plants and installations that are continuously under financial pressure, Elektra helps improve cost management and provides peace of mind driven by the knowledge of consistently precise dosing and control.

Direct connection

Even if there is no Wi-Fi network at the installation site, the technician present can connect directly with their smartphone, tablet or PC to Elektra's built-in Wi-Fi hub in order to programme the pump and check its status.

Remote connection via the internet

Where there is a Wi-Fi network, Elektra can use the same communication module integrated in its controller to connect to the internet and exchange data with the cloud, thus allowing the pump to be managed remotely from anywhere in the world, through the portal or the SekoWeb app. Qualified technicians will therefore be able to quickly obtain historical and real-time data on the operation of the pump and be notified in the event of alarms or warnings generated by the system. This allows scheduled maintenance to be planned and reported anomalies to be actioned immediately by remotely reprogramming the pump's dosing parameters.



Elektra web interface

Whether you are operating locally or remotely, the Elektra web interface provides the operator with:

- **Instant values:** displays overview of the real-time status of the system including pump operating mode, pump status and alarm status.
- **Graphs and levels:** displays the time graphs of the several pump parameters chosen for monitoring by the user.
- **Alarms:** displays the active alarms. If the pump has been registered in the portal and is being accessed through SekoWeb, it is possible to view the log of all the received alarms with date, time and type.
- **General settings:** a section where the user can set the operating mode of the pump and adjust dosing parameters.
- **Statistics/counters:** provides an overview of the statistics of the system under control.
- **Advanced settings:** available only to users with appropriate permissions, this allows them to set other advanced device parameters and to stop, start and pause the pump remotely.
- When accessing the local pages of the internal webserver, further sections are available for updating pump firmware and setting network parameters, such as the password of the Wi-Fi network, needed to connect the device to the internet.

Modbus RTU over RS485 serial port

Modbus standard protocol means cross-device connection and communication, allowing the user to create a wired network of standard Modbus devices. Elektra can become part of bigger plant, made of several industrial devices, all controlled by a local controller such as a PC or PLC.

Wi-Fi for a direct connection and connecting online

Elektra's integrated Wi-Fi interface allows both local direct connection to the pump's internal programming webpages from any smart device, and the connection of the pump to a Wi-Fi network available in the plant, to allow the pump to be monitored and programmed remotely via the internet, through the SekoWeb portal or app.

Peristaltic
Dosing Pumps

Product Overview

		Kronos 65	Kronos 50	Kronos 20
				
Features	IP65 enclosure box	•	•	•
	LCD display	16 x 2	16 x 2	8 x 2
	Motor	Stepper	Stepper	Brushed DC
	Tube breakage detection system	•	•	•
	pH/ORP input		•	•
	Installation kit: • Ceramic foot filter • FPM injection valve • PVC suction tube • PE delivery tube		•	•
Model Type	**HX:** with pH/ORP • Built-in controller meter		•	•
	FM: proportional: • Digital frequency signal (pulse) • Analogic signal (4 - 20 mA)	•	•	
	FF: proportional full: • Digital frequency signal (pulse) • Analogic signal (4 - 20 mA) • Voltage signal (0 - 10V)	•	•	
	EC: for cooling towers • Conductivity input for drain control • Dosage proportional to water flow • Specific cooling tower menu		•	
Tube	Santoprene	•	•	•
	SekoExtra		•	
	SekoMed		•	
	SekoFort		•	
	HP-San		•	

Kronos Series

Multi-application peristaltic pumps

Kronos is a range of durable and robust peristaltic pumps suited to multiple applications within the cleaning and hygiene and water-treatment industries. Easy to install and requiring minimal maintenance, the whole Kronos range is designed to deliver a "fit and forget" solution that provides convenience and reliability for busy operators. Where hydraulic conditions allow it, the use of a peristaltic rather than solenoid pump allows users to avoid the common difficulties in priming when changing the tank such as possible scaling inside the valves and the rhythmic noise of the working pump, allowing a constant, uniform and non-impulsive dosage of the chemical.

Applications

The versatile Kronos Series is suited to multiple water-treatment applications:

- Drinking water
- Irrigation systems
- Cooling towers
- Swimming pools
- Wastewater
- Food & beverage

Features & benefits

Intuitive menu and special functions

Access tube life data to facilitate maintenance planning

Three-roller system

Limits tube stretching, while reverse rotation feature empties tubes between doses for reduced degradation

Stepper motor*

Unprecedented dosing precision down to 0.01% of maximum flow

Simplified maintenance

Designed to ensure main connections remain fixed during servicing

Advanced motor control

Eliminates vibration and friction for quiet running and extended lifespan

Chemical compatibility

Kronos accepts a wide range of peristaltic tubing to ensure exceptional chemical compatibility in every application

*Available on selected models

Kronos 65

The peristaltic Kronos pump with a higher flow rate

Among the Kronos pumps, Kronos 65 offers the highest flow rate, up to 25 l/h at low pressures.

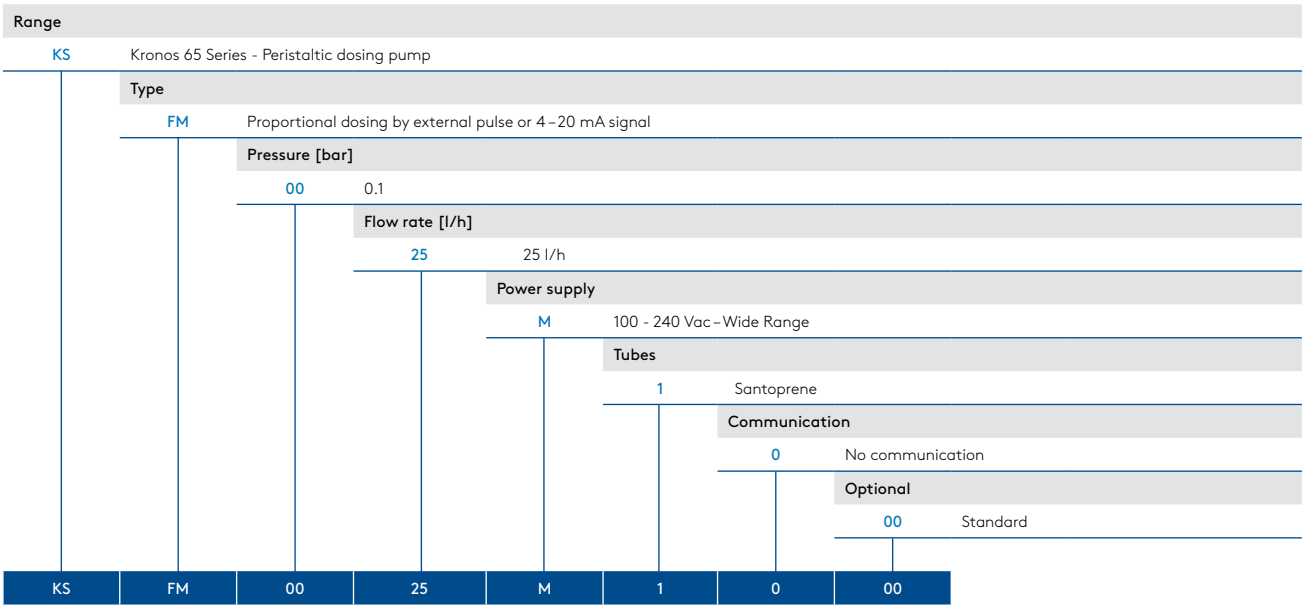
- Flow rate: 25 l/h - 0.1 bar
- Tube: Santoprene

Features

- Direct driven stepper motor
- Santoprene peristaltic tube
- PTFE rollers mounted on ball bearings
- Intuitive digital interface: 7 keys and a 2 x 16 LCD display
- **FM:** Proportional dosing with 4 - 20 mA/ pulse input
- Wall-mounting bracket

- Kronos 65 is available in the FM model, which features proportional dosage and accepts an analogue 4 - 20 mA signal or a digital frequency signal such as that generated by a pulse-emitting water meter. The pump then doses at a flow rate proportional to this signal, according to the programmed ratio.
- The user can also configure the pump in constant mode and, in this case, the pump will dose at the programmed flow rate in the presence of an external activation trigger.
- The pump is equipped with a powerful stepper motor and is provided with a 65 mm peristaltic head.
- The integrated “Tube Break Alarm” mechanism identifies chemical leakage inside the peristaltic head and blocks dosage.
- The durable ABS case with IP65 protection allows the pump to be used even in applications where it may be subject to water splashes or dust.

Kronos 65 key code



FM model

Proportional dosing: The pump accepts an analogic 4 - 20 mA signal, or a digital frequency signal, and doses at a flow rate proportional to this signal according to the programmed ratio. A pulse-emitting water meter can be connected directly to the digital signal input and, in this case, the pump will dose at a flow rate proportional to that of the water in the pipeline.

Kronos 50

Peristaltic dosing pumps for water and industrial applications

Kronos 50 is equipped with a stepper motor that provides infinitely adjustable (0.01 - 100%) and silent dosing. Advanced technology and materials mean the various models can reach flow rates of up to 15 l/h (at 0.1 bar) and can dose at backpressures up to 4 bar with a special HP-San tube.

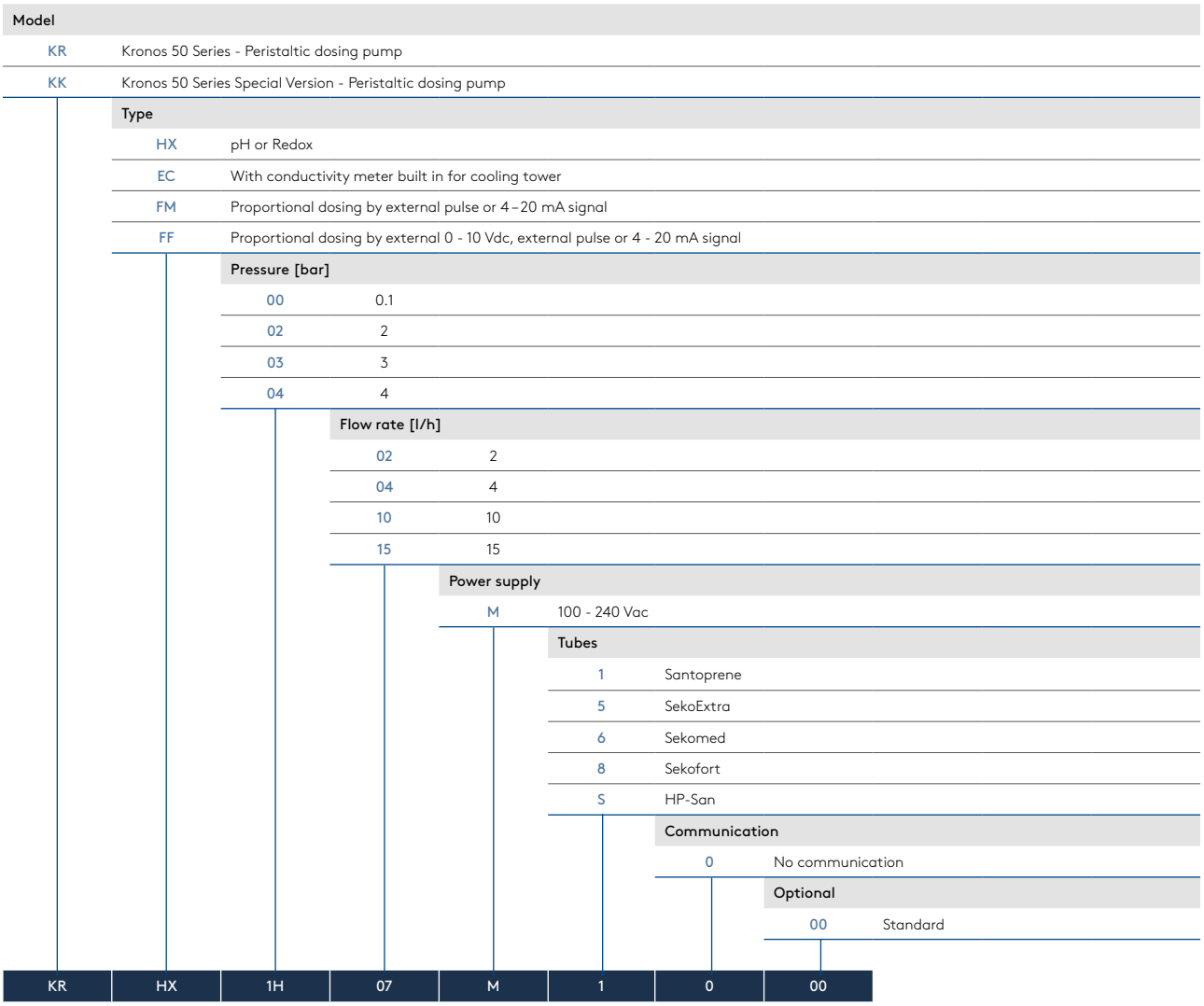
- Flow rate: up to 15 l/h
- Backpressure: up to 4 bar
- Tube: Santoprene - SekoExtra - SekoMed - SekoFort - HP-San

Applications

- Potable water treatment (injection of coagulants, flocculating agents, sodium hypochlorite, lime slurry, acid, bases, caustic soda and activated carbon)
- Domestic or industrial wastewater treatment and cooling water
- Chemical treatment, electrolytic (electro-plating) treatments: addition of degreasing agents, cleaning agents, nickel electroplating and chemical nickel plating, copper plating and tinning

- The digital programming of 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 statistics on the life of the tube and the operating life of the pump.

Kronos 50 key code



HX model

With pH/ORP controller meter built in, galvanically insulated

One basic function: dosing of the chemical up to the programmed setpoint for pH or redox.

EC model

With conductivity meter built in for cooling towers

Three basic functions:

- Dosing of anti-scaling proportional to an external pulse signal (water flow rate).
- Opening of drain valve for blow-down function when conductivity reaches a programmed setpoint.
- Disabling of the blow-down function for a programmable time, after chemical dosing.

FM model

Two basic functions: proportional dosing by external pulse or 4 – 20 mA signal. The pump has galvanic electrical insulation. Special version with SekoFort tube for mineral oil and with HP-San tube for high pressure (up to 4 bar).

FF model

Three basic functions: proportional dosing by external 0 - 10 Vdc, pulse or 4 - 20 mA signal. The pump has galvanic electrical insulation.

Kronos 20

Peristaltic dosing pumps for water and industrial applications

Kronos 20 is a higher-level professional pump suitable for use in medium-duty applications, operating a single function - proportional chemical dosing. Reading either pH or ORP, the pump features fully galvanic electrical insulation.

- Flow rate: 7 l/h - 1.5 bar
- Tube: Santoprene

Applications

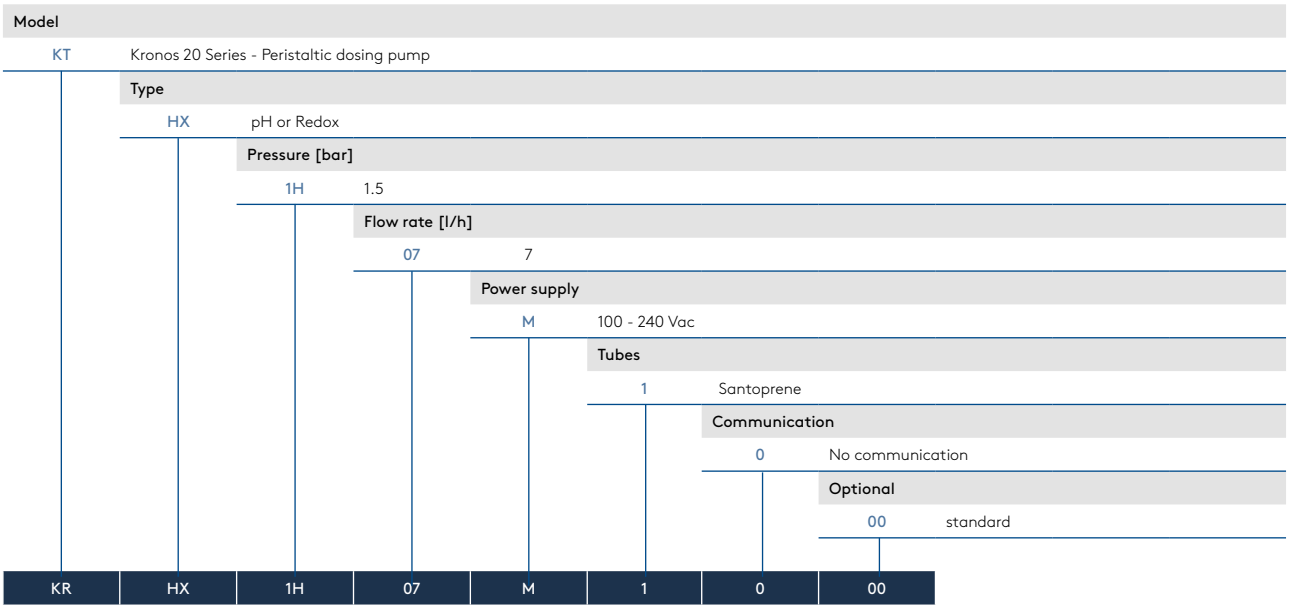
Kronos 20 series meets the needs of water and industry applications.

Kronos 20 can 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

- Kronos 20 is easy to install, with a structure that facilitates maintenance and reduces the cost and complexity of electronic circuitry by eliminating the need to remove connections that have already been made.
- All parts of the mechanism have permanent lubrication, using ball bearings for the principal moving components that helps prevent overheating and extends the pump life with the added benefit of low-decibel operation.

Kronos 20 key code



HX model

With pH/ORP controller meter built in, galvanically insulated

One basic function: dosing of the chemical up to programmed setpoint for pH or redox.

Hydrakos

Water-Driven Dosing Pumps

Product Overview

		D25RE020	D25RE050	D25RE100
				
Performance	Flow rate range [l/h]	10 - 2,500	10 – 2,500	10 – 2,000
	Pressure [bar]	0.3 – 6	0.3 – 6	0.3 – 4
Injection Mode	Injection dosage [%]	0.2 – 2	1 – 5	3 – 10
	Concentrated additive injection rate [l/h]	0.02 – 50	0.1 – 125	0.3 – 200

Applications

Municipal Water Treatment

Fertigation

Livestock Farming

Food & Hygiene

Industrial Processes

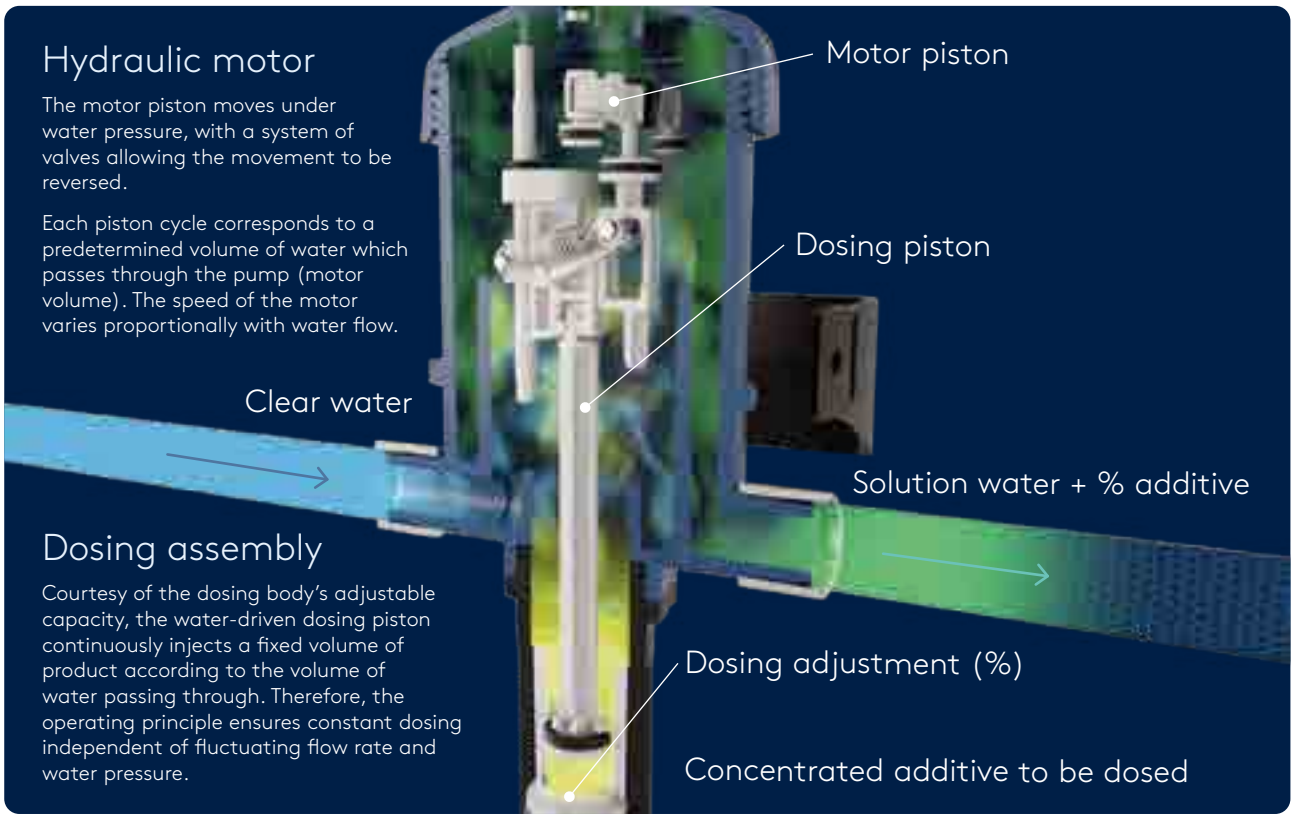
Car Wash

Hydrakos

Automatic chemical dosing systems

Water-driven pump technology is based on a hydraulic motor pump activated only by pressure and water flow. Installed directly on the water supply line, the pump operates by using the water flow rate as a source of energy.

The pressure and flow rate of the water actuate the motor piston which drives a second, product-dosing piston. The product is injected and mixed continuously with the water from the mains supply at the selected dosing rate percentage (rate of product/water incorporation). The dose of concentrated product is directly proportional to the volume of water passing through the pump, independent of variations in the flow rate and pressure of the mains water supply.



Features & benefits

Low operating & maintenance costs

Hydrakos's robust components and intelligent design make the system inexpensive to both run and maintain

High-precision, repeatable dosing

Operators can depend upon Hydrakos to dose a range of chemicals with superior accuracy every time

Non-electric

The pump's absence of electrical connection make it the perfect solution for operators seeking to achieve precise dosing even in remote locations

Reduced cleaning and servicing time

The exceptional build quality of Hydrakos allows operators to spend minimal time servicing the system

Self-priming and efficient mixing

Removing the need for manual priming, Hydrakos brings speed and efficiency to every dosing application

Easily regulated injection rate

With an adjustable dosing percentage depending on the selected model, users enjoy ultra-tight control to prevent chemical wastage and associated costs

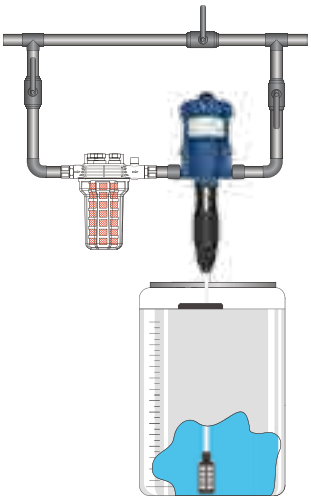
Hydrakos

Automatic chemical dosing systems

SEKO's Hydrakos water-driven pumps are the latest addition to our world-leading range of chemical dosing systems, offering an alternative to automatic solenoid, peristaltic and motor-driven metering to serve a vast range of applications.

Installed directly in the water supply line, the Hydrakos uses water pressure as its power source and automatically mixes concentrated chemical proportional to water volume regardless of variations in flow or pressure which may occur in the main line.

This ultra-reliable dosing method means operators can rely on consistent performance in applications as varied as water treatment, automotive care and industrial processes.



Pump installation

In order to optimise your installation and get the most out of your water-driven pump, we recommend the following guidelines are met:

- Refer to local water regulations
- Install a filter upstream depending on water quality
- Change dosing seals at least once a year
- Rinse as often as possible with clean water
- Turn off water supply and allow pressure to drop to zero before adjusting injection rate
- Install necessary protections for excess flow, excess pressure and water hammer

Features

- Easily regulated injection rate
- Portability (emergency skids)
- Low operating and maintenance costs
- Dose any liquid or water-soluble product
- Precise, repeatable dosing
- Non-electric (energy saving)
- Simple dosage adjustment (in % increments)
- Self-priming and efficient mixing
- Optimal water and polymer consumption
- Reduced cleaning and maintenance time
- Automatic dosing stops in event of water flow ceasing

Specification

Model	D25RE020	D25RE050	D25RE100
Injection Dosage	0.2 – 2%	1 – 5%	3 – 10%
Water Flow Rate*	10 - 2,500 l/h	10 – 2,500 l/h	10 – 2,000 l/h
Pressure	0.3 – 6 bar	0.3 – 6 bar	0.3 – 4 bar
Concentrated Additive Injection Rate	0.02 – 50 l/h	0.1 – 125 l/h	0.3 – 200 l/h

*For other fluids than water, please contact us

Hydrakos key code

Model

WDP — Water driven pump.

Type	Pressure [bar]	Flow rate [l/h]	Ø Hydr Connections IN/EXT. [mm]	Concentrated product injection rate [l/h]	Adjustable dosage [%]	Adjustable dosage [1:]
D25	0.3 - 6	10 - 2,500	¾" M BSP-NPT Ø 20 x 27mm	0.02 - 50	0.2 - 2	500 - 50
				0.1 - 125	1 - 5	100 - 20
	0.3 - 4	10 - 2,000		0.3 - 200	3 - 10	33 - 10

Injection dosage

RE	External adjustable

Dosage range	%	1:
020	2	50
050	5	20
100	10	10

Seals

F	FPM
E	EPDM
A	AFLAS

Body material

P	PP
V	PVDF

Mixing device

0	Internal

Market

0	Western

WDP	D25	RE	020	F	V	0	0

Hydrakos with PP body

- The ideal general-purpose pump
- Broad chemical compatibility
- Suitable for fresh, salt and deionised water
- Commonly used for chemicals as varied as formaldehyde, potassium and sulfuric acid

Hydrakos with PVDF body

- Exceptional chemical compatibility
- Superior thermal stability and resistance to stress cracks
- High corrosion resistance

Arkad

Air-Operated Double Diaphragm Pumps

Product Overview

	J0007	J0018	J0030	J0060	J0090	J0120
						
PP	•	•	•	•	•	•
PVDF+CF	•	•	•	•	•	•
POMc	•	•				
ALU				•	•	•
SS316		•	•	•	•	•
Fluid connections	¼″ BSP	⅜″ BSP	½″ BSP	½″ BSP	¾″ BSP	1″ BSP
Air connection	4 mm	6 mm	6 mm	¼″ BSP	¼″ BSP	¼″ BSP
Max flow rate	7 l/min	18 l/min	33 l/min	65 l/min	100 l/min	120 l/min
Max air pressure	6 bar	7 bar	7 bar	8 bar	8 bar	8 bar
Max delivery head	60 m	70 m	70 m	80 m	80 m	80 m
Max suction lift dry	3 m	3 m	4 m	4 m	4 m	4 m
Max suction lift wet	7 m	9 m	9.2 m	9.8 m	9.8 m	9.8 m
Max particle diameter	2 mm	2.5 mm	3 mm	3.5 mm	4 mm	4 mm
Noise level	78 dB	78 dB	90 dB	85 dB	90 dB	90 dB
Max viscosity	5,000 cps	10,000 cps	15,000 cps	20,000 cps	15,000 cps	25,000 cps
Displacement per stroke	15 cc	35 cc	80 cc	192 cc	400 cc	400 cc
Max cycle speed (Cycles per minute)	470 cpm	520 cpm	550 cpm	340 cpm	250 cpm	300 cpm

	J0170	J0250	J0400	J0700	J01K0
					
PP	•	•	•	•	•
PVDF+CF	•	•	•	•	•
POMc					
ALU	•	•	•	•	•
SS316	•	•	•	•	•
Fluid connections	1″ BSP	1 ¼″ BSP	1 ½″ BSP DN40	2″ BSP DN50	3″ BSP DN80
Air connection	¼″ BSP	¼″ BSP	½″ BSP	¾″ BSP	¾″ BSP
Max flow rate	190 l/min	220 l/min	300 l/min	650 l/min	880 l/min
Max air pressure	8 bar	8 bar	8 bar	8 bar	8 bar
Max delivery head	80 m	80 m	80 m	80 m	80 m
Max suction lift dry	4 m	4 m	4 m	4.5 m	5 m
Max suction lift wet	9.8 m	9.8 m	9.8 m	9.5 m	9.8 m
Max solid passing	7.5 mm	7.5 mm	8 mm	8.5 mm	12 mm
Noise level	90 dB	90 dB	95 dB	97 dB	95 dB
Max viscosity	35,000 cps	35,000 cps	40,000 cps	50,000 cps	55,000 cps
Displacement per stroke	964 cc	1,122 cc	2,278 cc	3,000 cc	7,000 cc
Max cycle speed (Cycles per minute)	197 cpm	196 cpm	133 cpm	220 cpm	125 cpm

SEKO's Arkad pumps are renowned for their flexibility in pumping difficult liquids at low pressure and flow.

The Arkad series of air-operated double diaphragm (AODD) pumps delivers exceptional versatility and performance across a wide range of chemical dosing and liquid transfer applications. With flow rates from 7 to 880 litres per minute, easily adjustable via intuitive controls, these pumps offer precise handling for everything from highly corrosive acids to high-viscosity paints, adhesives and abrasive slurries.

Engineered with no electrical components, Arkad pumps can be fully submerged without compromising performance. A broad selection of pump head sizes, materials and seal options ensures compatibility with even the most challenging fluids, making Arkad a reliable solution for demanding industrial environments.

Reliability

- 100% wet tested after final assembly; deadheading, priming and sealing
- All-plastic air system; strong and corrosion resistant in harsh environments
- Dry run without damaging the pump or system; seal-less design
- Serviceability: quickly and easily maintained without any special tools

Security

- Special air exhaust; designed to operate at low noise levels
- Fully submersible; can be immersed completely according to fluid compatibility
- All-bolted construction provides maximum leak resistance and safety

Features

- Variable flow rates; easy to adjust without sophisticated controls
- Portable and compact for multi-location use, optionally with trolley
- Able to handle liquids with solid particles; ideal for abrasive and viscous media
- Advanced air-management system; lube-free, non-stall, non-freeze
- Wide options for sizes and materials to fit a variety of conditions and chemical fluids
- Efficient performance; high flow rates thanks to optimal pump body design
- Self-priming dry up to five metres; suitable for suction lift applications
- Efficient air distribution design reduces air intake requirement
- Hydraulic connections can be configured to perfectly fit the destination plant

Arkad

Air-Operated Double Diaphragm pumps

Air-operated double diaphragm pumps have long been recognised as the most flexible pumps for handling difficult liquids at relatively low pressures and flows in a virtually limitless range of applications. SEKO Arkad AODD pumps come in many sizes and 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.

Made in PP, PVDF, SS316, POMc and Aluminium

Flow rate from 7 l/min to 880 l/min

Connection from ¼" to 3"

Why choose Arkad?

Pump type	AODD	Centrifugal	Lobe	Gear	Screw	Peristaltic	Piston
Variable Flow & Head Control	✓	✓	✓	✓	!	!	✓
Deadhead Safely	✓	✓	!	!	!	!	!
Dry-running	✓	✗	✗	✗	✗	✗	✗
Dry Self-priming	✓	✗	✗	✓	✗	✓	!
No Mechanical Alignment	✓	✗	✗	✗	✗	✗	✗
No Electrical Installation	✓	✗	✗	✗	✗	✗	✗
Portability	✓	✓	!	!	!	✓	!
Submersible	✓	!	✗	✗	✗	✗	!
Seal-less	✓	!	!	!	!	!	!
Cavitation Tolerance	✓	✗	!	!	✓	!	!
Low Shear & Degradation	✓	✗	✓	✓	!	!	!

✓ = Suitable ! = Limitations ✗ = Not Recommended

Markets and Applications

Air-operated double diaphragm pumps are among the most versatile liquid transfer solutions on the market. They can be used in a variety of installations across countless applications, including:

- Agriculture
- Automotive
- Biodiesel
- Ceramic
- Chemical
- Food
- Galvanic
- Mechanical
- Mining
- Naval
- Petrochemical
- Oil & Gas
- Paint & Varnish
- Pharmaceutical & Cosmetic
- Printing Inks
- Pulp & Paper
- Textile & Leather
- Water Treatment

Materials - Pump Head

Polypropylene

Wide chemical compatibility. General purpose.

PVDF+CF

Conductive PVDF: Strong chemical resistance to acids. High temperature resistance. Groundable.

POMc

Acetal: Wide range of solvent and hydrocarbons resistance. Good level of abrasion resistance.

Aluminium

Wide range of solvent and hydrocarbons resistance. Good level of abrasion resistance.

SS316

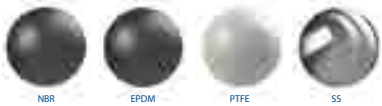
Stainless steel 316: High level of corrosion and abrasion resistance.

Interior Part Materials

Diaphragm

- **NBR** Good for petroleum-based fluids, water, oils, hydrocarbons and mild chemicals.
- **EPDM** OK with caustic solutions, dilute acids, ketones and alcohols. Good abrasion resistance.
- **PTFE** Widest chemical compatibility, extreme corrosion resistance, non-adhesive, high heat resistance.
- **HYTREL** Good low-temperature properties. Good abrasion resistance.
- **SANTOPRENE** Widely used in general chemical delivery.

Ball check



- **NBR** Good for petroleum-based fluids, water, oils, hydrocarbons and mild chemicals.
- **EPDM** OK with caustic solutions, dilute acids, ketones and alcohols. Good abrasion resistance.
- **PTFE** Widest chemical compatibility, extreme corrosion resistance, non-adhesive, high heat resistance.
- **SS** High level of corrosion and abrasion resistance. Good for viscous fluids.

Seat

- **POLYPROPYLENE** Wide chemical compatibility. General purpose.
- **PVDF** Strong chemical resistance to acids. High temperature resistance.
- **ALUMINIUM** Wide range of solvent and hydrocarbons resistance. Good level of abrasion resistance.
- **SS** High level of corrosion and abrasion resistance.
- **PE** with high molecular weight. High level of abrasion resistance.

O-rings

- **FPM** High heat resistance. Good resistance to aggressive chemicals and hydrocarbons.
- **NBR** Good for petroleum-based fluids, water, oils, hydrocarbons and mild chemicals.
- **EPDM** OK with caustic solutions, dilute acids, ketones and alcohols. Good abrasion resistance.
- **PTFE** Widest chemical compatibility, extreme corrosion resistance, non-adhesive, high heat resistance.

Arkad AODD key code

Model

J Pneumatic Double Diaphragm Pumps

Type

0 Standard configuration

N External control type, without solenoid valve

Y External control type, with solenoid valve

Series	Flow rate	Connections [BSPP]		Del head max	Max air pressure	Max suction lift		Max solid Passing	Viscosity max	Displac./ cycle	Max cycle speed
	[l/min]	Fluid [G]	Air [Rp]	[m]	[bar]	Dry [m]	Wet [m]	[mm]	[cps]	[cc]	[cpm]
007	7	¼"	4 mm	60	6	3	7	2	5,000	15	470
018	18	⅜"	6 mm	70	7		9	2.5	10,000	35	520
030	33	½"					9.2	3	15,000	60	550
060	65		¼"	80	8	4	9.8	3.5	20,000	192	340
090	100	¾"						4	15,000	400	250
120	120	1"							25,000		300
170	190							7.5	35,000	964	197
250	220	1 ¼"								1,122	196
400	300	DN40 1 ½"	½"					8	40,000	2,278	133
700	650	DN50 2"	¾"			4.5	9.5	8.5	50,000	5,900	220
1K0	880	DN80 3"				5	9.8	10	55,000	7,000	125

Connection

1 BSP threaded (+ metal ring)

2 Flanged (or BSP threaded + kit flanged)

4 Twin BSP connection

5 NPT threaded (+ metal ring)

7 Twin NPT connection

8 Special connections for laundry machines

Body Material

P Polypropylene + Glass Fibre

K PVDF + Carbon Fibre

M POMc

S SS316

A Aluminium

Air Diaphragm

H Hytrel

M Santoprene

D EPDM

N NBR

Fluid Diaphragm

X None

T PTFE

Balls

T PTFE

S SS316

D EPDM

N NBR

Seat

0 No seat (007 only)

P Polypropylene

K PVDF

S SS316

A Aluminium

M POMc

Z PE-UHMW

O-Ring

V FPM

D EPDM

N NBR

T PTFE

Connection

AB Standard (A - suction / B - discharge)

Market

0 International

8 China

Customisation

0 Standard

J	0	090	1	K	H	T	T	P	T	AB	0	0

Arkad
J0007

Technical data

Fluid connections	¼" BSP
Air connection	4 mm
Max flow rate	7 l/min
Max air pressure	6 bar
Max delivery head	60 m
Max suction lift dry	3 m
Max suction lift wet	7 m
Max particle diameter	2 mm
Noise level	78 dB
Max viscosity	5,000 cps
Displacement per stroke	15 cc
Max cycle speed	470 cpm

PP

PVDF+CF

POMc

Arkad
J0018

Technical data

Fluid connections	⅜" BSP
Air connection	6 mm
Max flow rate	18 l/min
Max air pressure	7 bar
Max delivery head	70 m
Max suction lift dry	3 m
Max suction lift wet	9 m
Max particle diameter	2.5 mm
Noise level	78 dB
Max viscosity	10,000 cps
Displacement per stroke	35 cc
Max cycle speed	520 cpm

PP

PVDF+CF

POMc

SS316

Arkad
J0030

Technical data

Fluid connections	½" BSP
Air connection	6 mm
Max flow rate	33 l/min
Max air pressure	7 bar
Max delivery head	70 m
Max suction lift dry	4 m
Max suction lift wet	9.2 m
Max particle diameter	3 mm
Noise level	90 dB
Max viscosity	15,000 cps
Displacement per stroke	80 cc
Max cycle speed	550 cpm

PP

PVDF+CF

SS316

Arkad
J0060

Technical data

Fluid connections	½" BSP
Air connection	¼" BSP
Max flow rate	65 l/min
Max air pressure	8 bar
Max delivery head	80 m
Max suction lift dry	4 m
Max suction lift wet	9.8 m
Max particle diameter	3.5 mm
Noise level	85 dB
Max viscosity	20,000 cps
Displacement per stroke	192 cc
Max cycle speed	340 cpm

PP

PVDF+CF

ALU

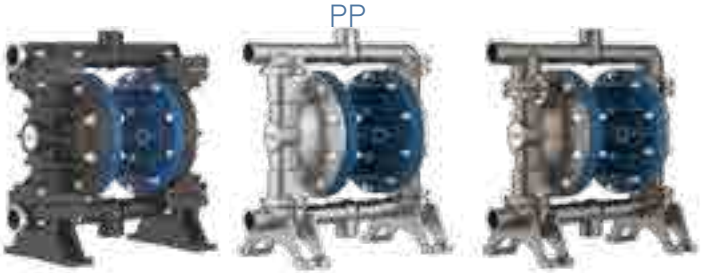
SS316

Arkad
J0090

Technical data

Fluid connections	¾" BSP
Air connection	¼" BSP
Max flow rate	100 l/min
Max air pressure	8 bar
Max delivery head	80 m
Max suction lift dry	4 m
Max suction lift wet	9.8 m
Max particle diameter	4 mm
Noise level	90 dB
Max viscosity	15,000 cps
Displacement per stroke	400 cc
Max cycle speed	250 cpm

PP



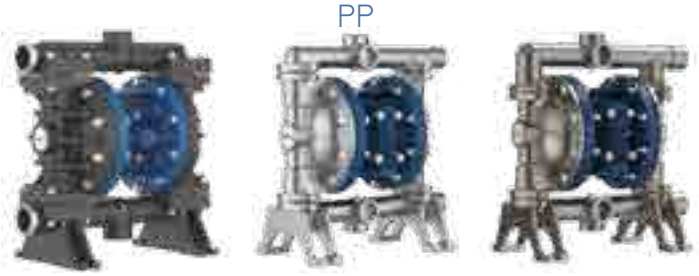
PVDF+CF ALU SS316

Arkad
J0120

Technical data

Fluid connections	1" BSP
Air connection	¼" BSP
Max flow rate	120 l/min
Max air pressure	8 bar
Max delivery head	80 m
Max suction lift dry	4 m
Max suction lift wet	9.8 m
Max particle diameter	4 mm
Noise level	90 dB
Max viscosity	25,000 cps
Displacement per stroke	400 cc
Max cycle speed	300 cpm

PP



PVDF+CF ALU SS316

Arkad
J0170

Technical data

Fluid connections	1" BSP
Air connection	¼" BSP
Max flow rate	190 l/min
Max air pressure	8 bar
Max delivery head	80 m
Max suction lift dry	4 m
Max suction lift wet	9.8 m
Max particle diameter	7.5 mm
Noise level	90 dB
Max viscosity	35,000 cps
Displacement per stroke	964 cc
Max cycle speed	197 cpm

PP

PVDF+CF

ALU

SS316

Arkad
J0250

Technical data

Fluid connections	1¼" BSP
Air connection	¼" BSP
Max flow rate	220 l/min
Max air pressure	8 bar
Max delivery head	80 m
Max suction lift dry	4 m
Max suction lift wet	9.8 m
Max particle diameter	7.5 mm
Noise level	90 dB
Max viscosity	35,000 cps
Displacement per stroke	1,122 cc
Max cycle speed	196 cpm

PP

PVDF+CF

ALU

SS316

Arkad
J0400

Technical data

Fluid connections	1½" BSP DN40
Air connection	½" BSP
Max flow rate	300 l/min
Max air pressure	8 bar
Max delivery head	80 m
Max suction lift dry	4 m
Max suction lift wet	9.8 m
Max particle diameter	8 mm
Noise level	95 dB
Max viscosity	40,000 cps
Displacement per stroke	2,278 cc
Max cycle speed	133 cpm

PP

PVDF+CF

ALU

SS316

Arkad
J0700

Technical data

Fluid connections	2" BSP DN50
Air connection	¾" BSP
Max flow rate	650 l/min
Max air pressure	8 bar
Max delivery head	80 m
Max suction lift dry	4.5 m
Max suction lift wet	9.5 m
Max particle diameter	8.5 mm
Noise level	97 dB
Max viscosity	50,000 cps
Displacement per stroke	3,000 cc
Max cycle speed	220 cpm

PP

PVDF+CF

ALU

SS316

Arkad
J01K0

Technical data

Fluid connections	3" BSP DN80
Air connection	¾" BSP
Max flow rate	880 l/min
Max air pressure	8 bar
Max delivery head	80 m
Max suction lift dry	5 m
Max suction lift wet	9.8 m
Max particle diameter	12 mm
Noise level	95 dB
Max viscosity	55,000 cps
Displacement per stroke	7,000 cc
Max cycle speed	125 cpm

PP

PVDF+CF

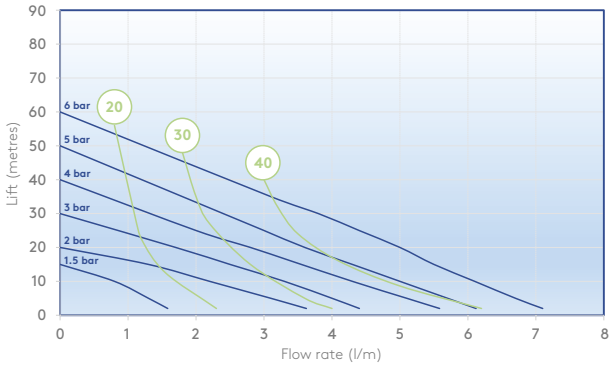
ALU

SS316

Performance curves

The curves and performance values refer to pumps with submerged suction and a free delivery outlet with water at 20°C and vary according to the construction material.

ARKAD J0007



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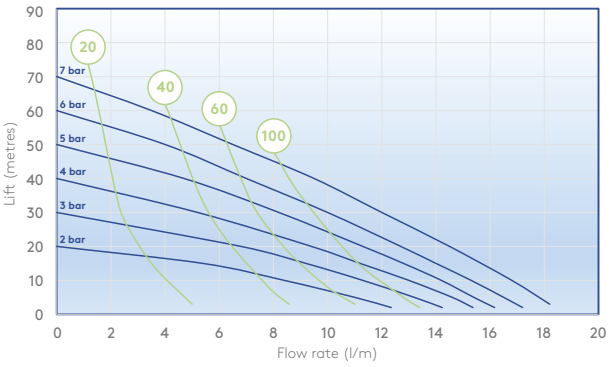

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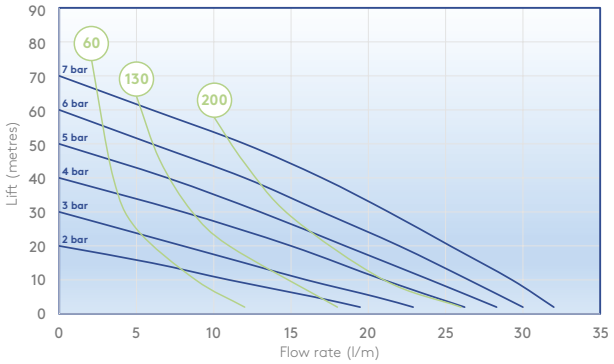

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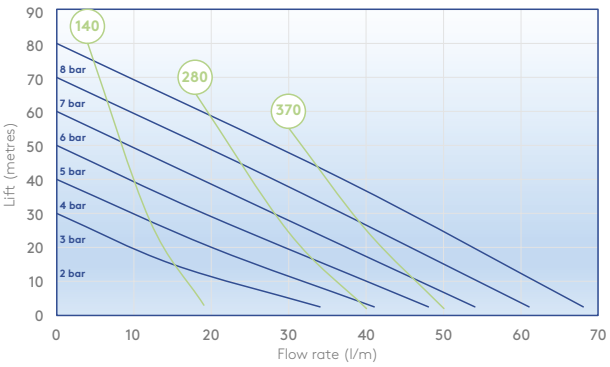

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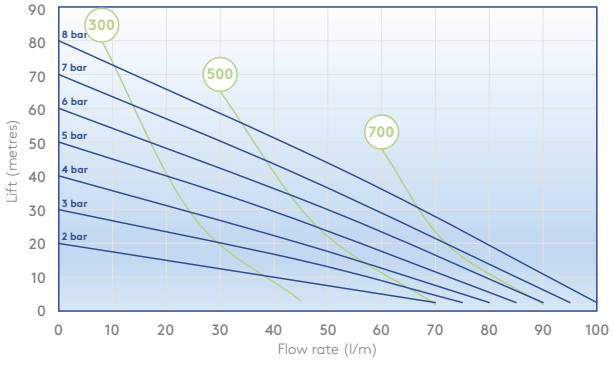

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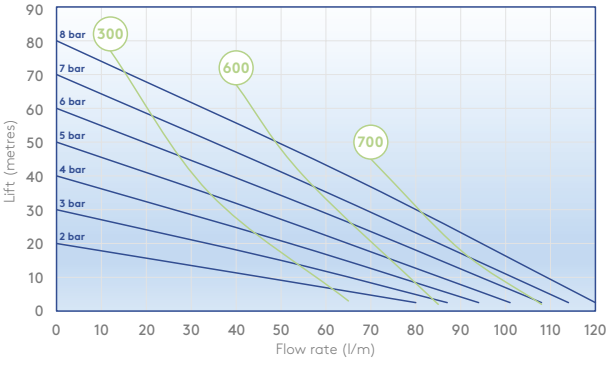
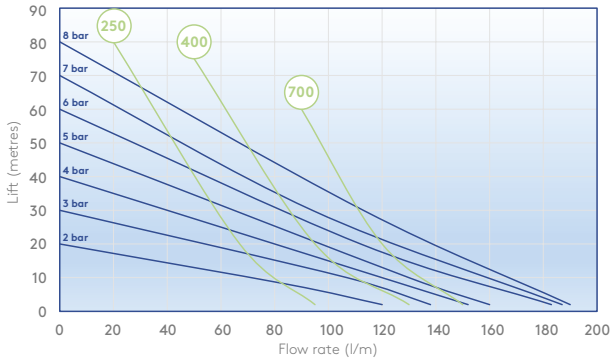


Air supply pressure Air consumption Nl/min

ARKAD J0170



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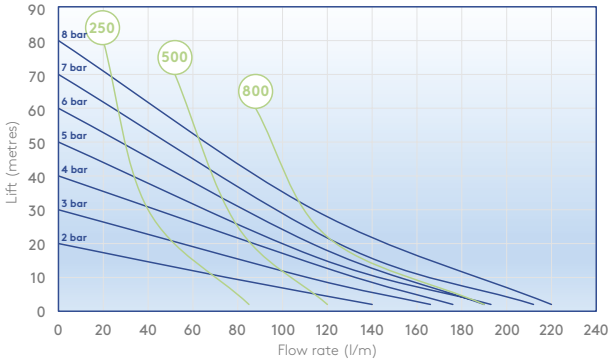

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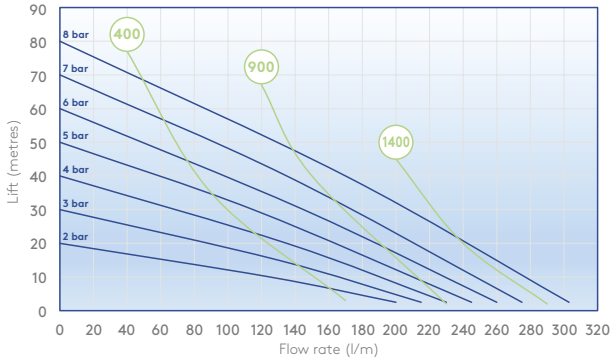

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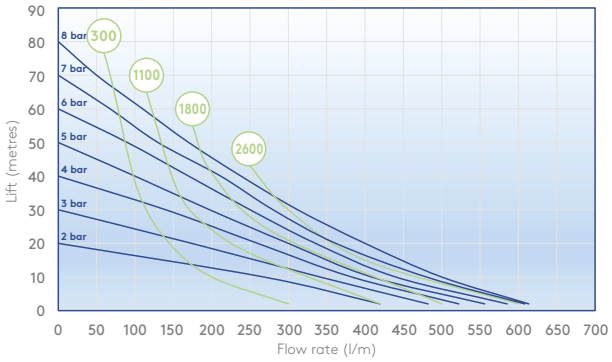
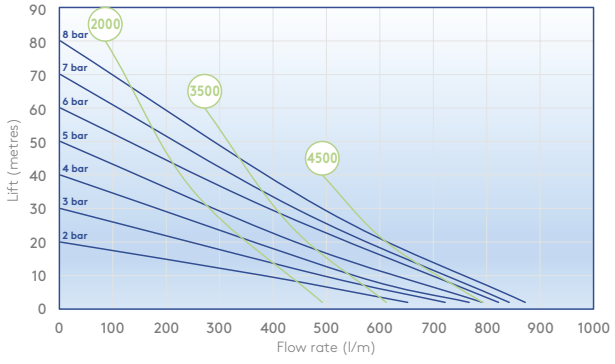


ARKAD J01K0



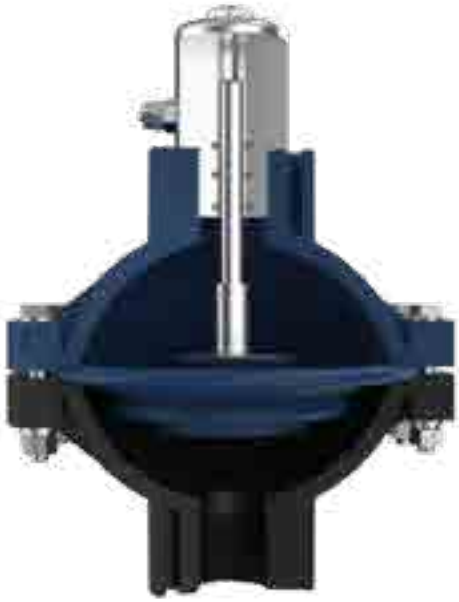
Damper

Pneumatic, automatic pulsation dampers

Made in PP, PVDF, SS316, POMc

A compatible system for every Arkad pump

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



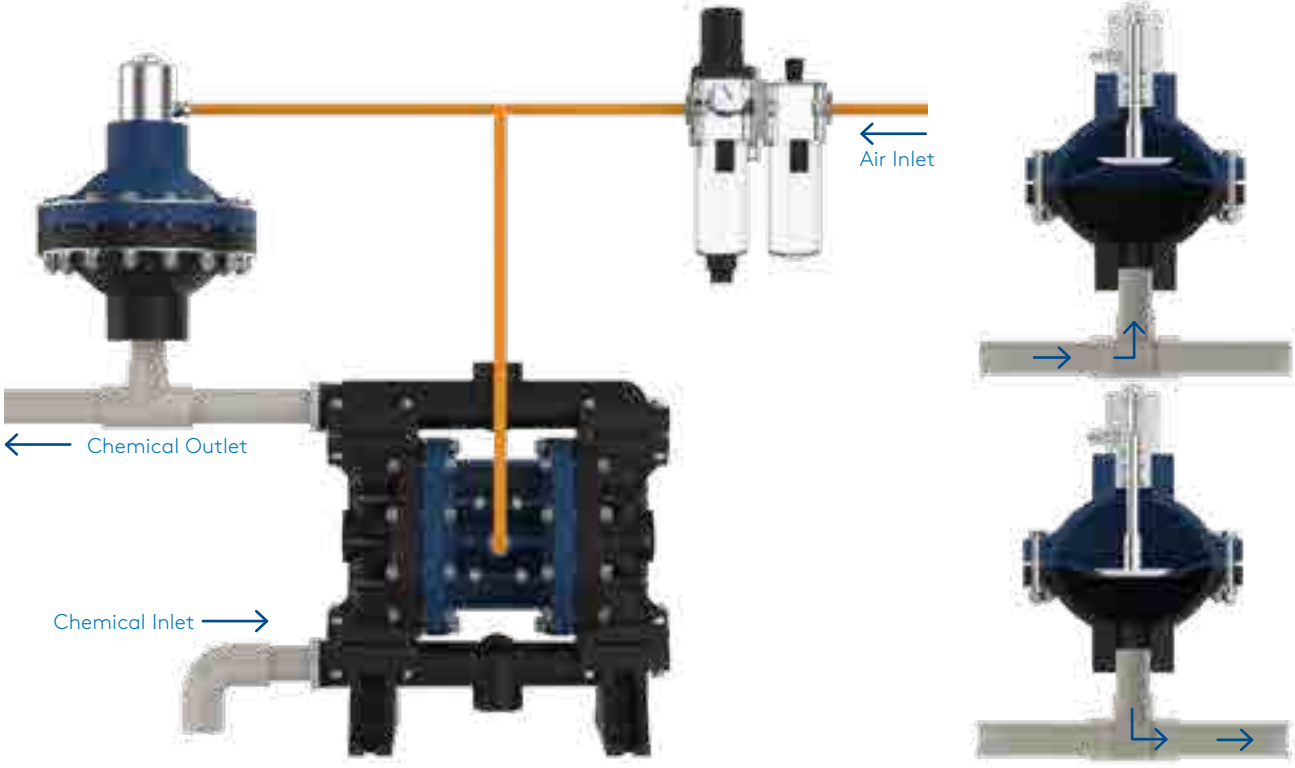
Applications

- Metering/injection/dosing (equalises discharge pressure spikes, increasing accuracy)
- Filter press/in-line filters (increases filter efficiency and life by providing a smooth flow)
- Spraying (smooth, consistent spray pattern)
- Filling (eliminates inconsistent filling and splashing)
- Transfer (eliminates harmful water hammer, preventing pipe and valve damage)

The Arkad Damper ensures a significant pulsation reduction on the delivery channel, with an average 70% - 80% pulsation reduction in high backpressure applications.

How it works

The pulsating flow in the delivery channel forces the diaphragm upwards which is cushioned by the compressed air present in the upper chamber. The subsequent flexing of the diaphragm absorbs the pulsation, so providing a smooth flow.



Damper JD030

Technical data

Fluid connections	½"
Air connection	6 mm
Max air pressure	8 bar
Compatible with	
J0007 J0018 J0030	


PP


PVDF+CF


POMc


SS

Damper JD120

Technical data

Fluid connections	1"
Air connection	6 mm
Max air pressure	8 bar
Compatible with	
J0060 J0090 J0120	


PP


PVDF+CF


POMc


SS

Damper JD400

Technical data

Fluid connections	1 ½"
Air connection	10 mm
Max air pressure	8 bar
Compatible with	
J0170 J0250 J0400	


PP


PVDF+CF


POMc


SS

Damper JD1K0

Technical data

Fluid connections	2"
Air connection	10 mm
Max air pressure	8 bar
Compatible with	
J0700 J01K0	


PP


PVDF+CF


POMc


SS

Dosing & Injection

Precision Dosing Skid Packages

Product Overview

		Skids for Spring Series	Skids for Tekna/Tekba Series
			
Performance	Flow rate range [l/h]	20 - 500	0.4 - 35
	Pressure [bar]	3 - 10	0.1 - 20
Pressure valve	Overpressure valve set point [bar]	4 - 11	0 - 18
	Backpressure valve set point [bar]	0.5 - 10	0.5 – 5
Pump	Pump type	Spring MS1 series	Tekna/Tekba series
	Pump configuration	1 pump 2 pumps 2 pumps (1 active – 1 stand-by) 3 pumps (2 active – 1 stand-by)	1 pump 2 pumps 2 pumps (1 active – 1 stand-by) 3 pumps (2 active – 1 stand-by)

Dosing & Injection Packages

Precision chemical dosing systems engineered for every industry

For over fifty years, SEKO has been a trusted global partner in the design and manufacture of advanced chemical dosing and metering solutions. Our commitment to quality, reliability, and innovation ensures that each system delivers consistent performance even in the most demanding industrial environments.

From compact solenoid-driven pumps such as the Tekna and Tekba ranges to powerful motor-driven models like the Spring Series, SEKO offers a wide selection of dosing pumps designed to meet the specific needs of multiple industries

Whether for water and wastewater treatment, energy production, or complex industrial processes, SEKO provides precision solutions that ensure efficiency, safety, and reliability.

Each SEKO dosing package is designed, assembled, and tested to the highest international standards, featuring precision-engineered components such as calibration pots, safety valves, pulsation dampers, and instrumentation to guarantee accurate and secure chemical handling.

With multiple configurations available, SEKO dosing systems are adaptable to different flow rates, pressures, and chemical compatibilities, allowing customers to select the ideal solution for their operational needs. From single-pump skids to complex dosing arrangements, SEKO technology supports a wide spectrum of applications with proven performance and long-term dependability.

Backed by a global logistics and support network, SEKO combines engineering excellence with worldwide reach to deliver efficient, high-quality dosing solutions that embody our long-standing values of innovation, technology, and future-focused design.

Features & benefits

Engineered precision

Assembled with high-accuracy components such as calibration pots, pressure gauges and safety valves to ensure consistent, reliable chemical injection

Wide pump compatibility

Available with Tekna, Tekba, and Spring pumps, enabling precise selection based on required flow rates, pressures and chemical compatibility

Flexible configurations

Offered in single, dual, and triple-pump arrangements (including duty/standby setups), with options for one or two discharge lines to suit simple or complex dosing processes

Robust enclosure

Choose between open-frame skids for easy access or closed cabinets with transparent doors for added protection, safety and visibility

Industrial-grade construction

Manufactured using corrosion-resistant materials such as PVC-U piping and EPDM/FPM seals, ensuring long service life

Compact & ready

Pre-engineered and pre-tested assemblies simplify installation and commissioning, reducing onsite labour and ensuring rapid integration into new or existing systems

Accuracy & safety

Integrated backpressure, overpressure and multifunction valves maintain stable dosing and protect equipment, preventing siphoning, over-injection and system overpressure

Chemical compatibility

All wetted materials are compatible with PVC-U, making the skids ideal for dosing acids, alkalis, disinfectants, coagulants, inhibitors, antiscalants and a broad range of industrial chemicals

Dosing Package key code

Model

S Skid

Configuration

C Closed cabinet (with transparent doors)

O Open case (without doors)

Pump series

T Tekna/Tekba

S Spring

Number of pumps

1 1 pump

2 2 pumps

3 3 pumps

Number of inputs

1 1 suction line

Number of outputs

1 1 discharge line

2 2 discharge lines

Cabinet/case material

P Polypropylene

Piping material

31 PVC-U/FPM

34 PVC-U/EPDM

Piping size

2 DN 10 (OD 16 mm)

4 DN 25 (OD 32 mm)

Customisation

00000 Standard

W_ _ _ _ Wall Hanging option (Only for Tekna/Tekba versions)

_ S _ _ _ Splash protection (Only for Open Cabinet versions)

_ _ 1 _ _ LOTO Switch

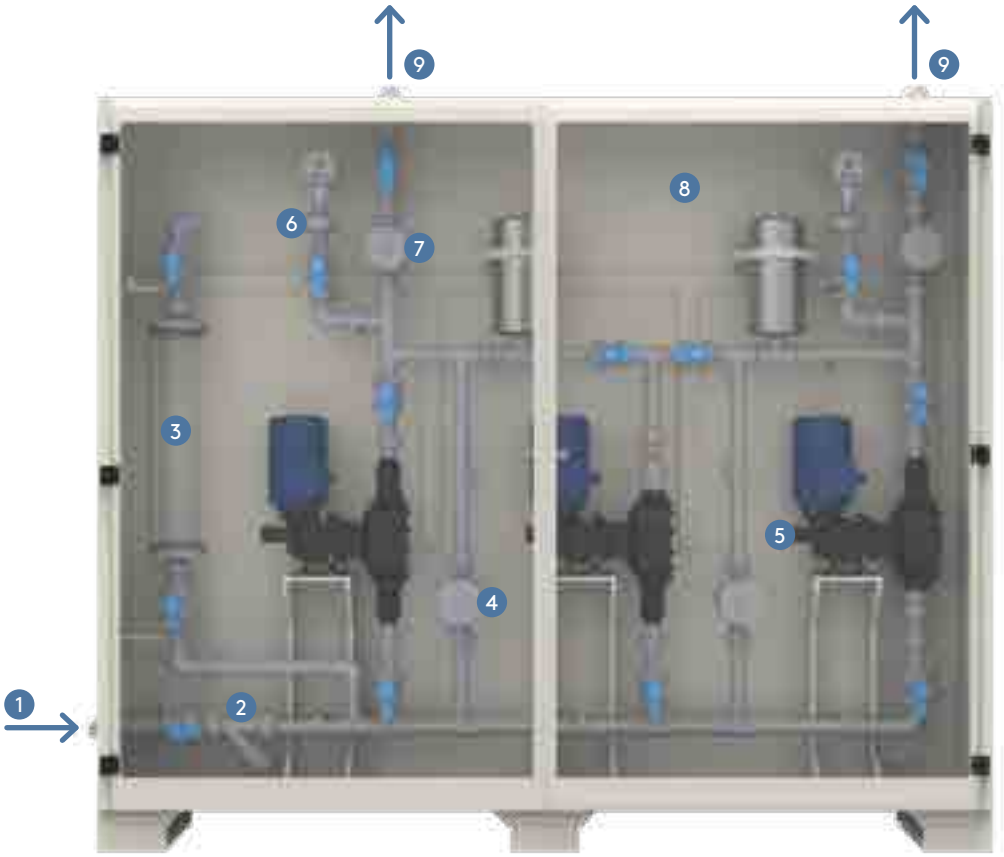
_ _ _ 2 _ Drain valve

_ _ _ _ 3 Manual Vacuum Pump

S	C	S	2	1	1	P	31	2	00000

Dosing Skids for Spring Series

Spring series configuration



1 Suction connection
2 Filter
3 Calibration pot
4 Overpressure valve
5 Spring MS1 (sold separately)
6 Pressure gauge with diaphragm seal
7 Backpressure valve
8 Closed cabinet
9 Discharge connection

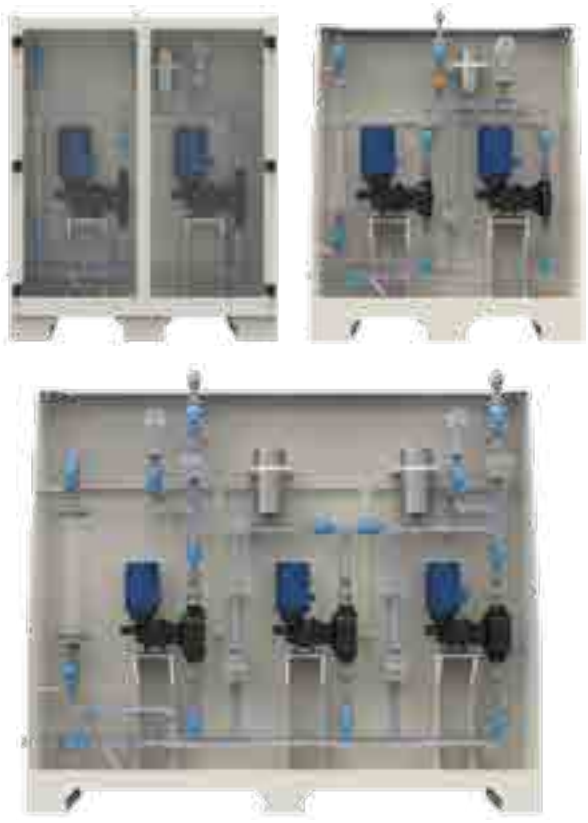
Specifications

Enclosure	Available in open cabinets or closed cabinets (with transparent PVC-U doors)
Nominal flow rate	20 - 500 l/h
Working pressure	3 - 10 bar
Overpressure valve set point	4 - 11 bar
Backpressure valve set point	0.5 – 10 bar
Pump nominal pressure	max 3 - 10 bar
Pump type	Spring MS1 series*
Pump Configuration	• 1 pump • 2 pumps • 2 pumps (1 active – 1 stand-by) • 3 pumps (2 active – 1 stand-by)
Inlets/Outlets Configurations	• 1 suction line/1 discharge line • 1 suction line/2 discharge lines
Environment temperature	5 - 40°C
Input/output pump connection	G ⅜" or G ¾" or G1" F depending on the selected model
Inlet/outlet skid connections	Socket union PVC-U DN 10 d16 or DN 25 d32**
Seals	Available with sealing made in FPM or EPDM
Working fluid	Compatible with PVC-U
Explosive environment	NonATEX

* Sold separately

** Solvent cement socket metric

Available configurations



Dosing Skids for Tekna/Tekba Series

Tekna/Tekba series configuration

1 Suction connection
2 Filter
3 Calibration pot
4 Tekna/Tekba (sold separately)
5 Multifunction valve (operates as backpressure and overpressure valve)
6 Pressure gauge with diaphragm seal
7 Open cabinet
8 Discharge connection

Specifications

Enclosure	Available in open cabinets or closed cabinets (with transparent PVC-U doors)
Nominal flow rate	0.4 - 35 l/h
Working pressure	0.1 - 20 bar
Multifunction valve - Overpressure set range:	0 - 18 bar
Multifunction valve - Backpressure set range:	0.5 – 5 bar
Pump nominal pressure	0.1 - 20 bar
Pump type	Tekna/Tekba series*
Pump Configuration	• 1 pump • 2 pumps • 2 pumps (1 active – 1 stand-by) • 3 pumps (2 active – 1 stand-by)
Inlets/Outlets Configurations	• 1 suction line/1 discharge line • 1 suction line/2 discharge lines
Environment temperature	5 - 40°C
Input/output pump connection	Flexible connection 4/6 or 8/12 mm
Inlet/outlet skid connections	Socket union PVC-U DN 10 d16*
Seals	Available with sealing made in FPM or EPDM
Working fluid	Compatible with PVC-U
Explosive environment	NonATEX

*Sold separately
**Solvent cement socket metric

Available configurations

PolyCendos

Effective polymer metering

Product Overview

		PolyCendos
		
Maturing time [l/h]	30 Minutes	1,000 - 16,000
	45 Minutes	750 - 12,000
	60 Minutes	500 - 8,000
	90 Minutes	333 - 5,333
	120 Minutes	250 - 4,000

PolyCendos

Effective polymer metering

The PolyCendos family offers a complete range of polymer preparation systems. Covering all the most common application needs where polymer solution preparation is required, PolyCendos offers ease of installation and maintain, with features designed to optimise costs throughout the process.

SEKO's PolyCendos Series has been specifically designed to provide effective solutions to the needs of water-treatment professionals

A complete range of polymer batching and metering systems

PolyCendos automatically prepares polymer solutions which are used as coagulants for the eventual removal of suspended particles in multiple water-treatment processes. These applications include swimming pool maintenance, oil recovery, colour removal, paper production, mineral processing and the various stages of wastewater treatment.

The PolyCendos family comprises four models offering up to 8,000 litres of polymer solution per hour. The range also comes with a variety of electrical control panels, mixers, diaphragm pumps and tank sizes to offer an optimal solution for every application. Its design also means that PolyCendos delivers flexible and compact footprint solutions to fit even confined spaces.

Features & benefits

Municipal Water Treatment

- Polymers enhance clarification and filtration in drinking and process water treatment
- They aggregate fine particles into removable flocs via sedimentation or filtration
- This improves water quality, reliability, and cost efficiency while meeting regulations

Wastewater Treatment

- Polymers and flocculants improve solid–liquid separation in industrial wastewater treatment
- They enhance settling and flotation to remove solids, organics, oils, and impurities
- This reduces environmental impact and improves compliance, efficiency, and energy use

Sludge Treatment

- Polymers enhance sludge conditioning and dewatering efficiency
- They improve water separation during centrifugation and filtration
- This produces drier sludge, lower disposal volumes, and reduced handling costs

Industrial Processes

- Paper industry: Improve fibre retention, drainage, and sheet formation to boost production efficiency.
- Process & mineral industries: Enhance solid–liquid separation, clarify process water, and improve recovery of valuable materials.
- Food & wastewater applications: Support water clarification and wastewater management to meet hygiene and environmental standards.

Construction characteristics

The following are the key elements used in the construction of the PolyCendos range.

- An automatic water supply system comprising a shut-off valve, filter, safety pressure switch, pressure gauge, pressure reducer valve, solenoid valve, water meter with pulses, control valve, flow meter (with flow switch for minimum level flow rate) and special dispensing nozzle (for units that work with powder polymers).
- Tanks made entirely in PPH, with inspection covers and emptying valves for each chamber.
- Customised mixers, optimised to ensure a homogeneous mixture, are made of stainless steel.
- Batching screw made entirely of stainless steel, with batching adjustment managed using a precise speed regulator.
- Electrical protection and control panel, with built-in buttons and controls or touchscreen panel, designed for manual/automatic operationand equipped with emergency stop and wiring to all system components.
- Conductivity level probes for high, low and very low levels with emergency light warning.
- Separate safety level switch for overflow levels (general fault alarm warning).

Optional equipment

The following are the key elements used in the construction of the PolyCendos range.

- Minimum level probe in the powder hopper
- Stirrer in the batching tank
- Vibrator for hopper
- Prefabricated post-dilution systems

Electrical control panel

Diaphragm dosing pumps, mixers and stirrers

Continuous flow system

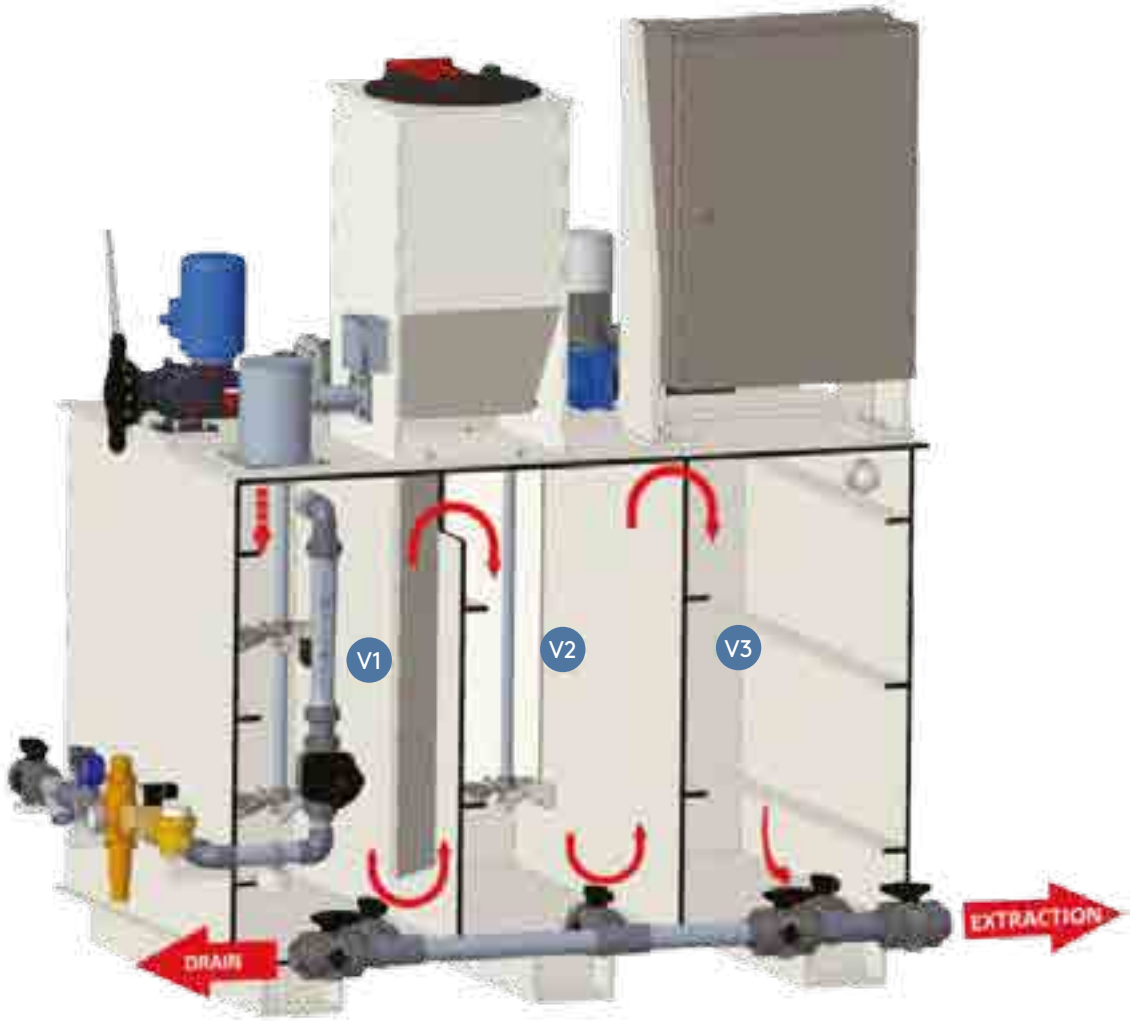
PolyCendos's triple continuous flow system is designed as a batch flocculation aid for the preparation of polymer solutions, featuring a storage tank subdivided into three chambers. Choose from four models to fit any application need.

- Processing of liquid polymer (0.05 – 0.5 %) and powdered polymers (0.05 – 1.0 %)
- Minimal product carry-over
- Polymer solution extraction and drainage of 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
- PLC Programable logic
- Version with terminal box available on request
- Extraction rate up to 4,000 l/h

Powder feeder

PolyCendos operation

The polymer preparation tank is divided into three chambers: **dissolving (V1), maturing (V2) and storage (V3),** interconnected by siphons that form a perfect flow between the sections, which is necessary for the formation of high-quality solutions.



The dosed polyelectrolyte comes into contact with water. The water/polyelectrolyte mixture then drops into the tank below where the dissolving phase begins. In this first chamber **V1,** a slow agitator keeps the contents of the tank moving ensuring thorough homogenisation of the solution. The siphon transfers the solution to the maturing chamber, **V2,** where another slow agitator keeps the solution uniform until maturing is complete. Then the solution is transferred to storage chamber **V3** from where it can be transferred for use.

The level switches installed in this final chamber control the automatic functions:

- **Max and normal level:** when the solution reaches the maximum level, this switch stops the powder dosing unit/liquid polymer dosing pump and closes the water inlet solenoid valve. Whilst level is normal, the switch enables the dosing unit to function and opens the water solenoid valve.
- **Minimum level:** when the solution falls to minimum levels and below, this switch stops the dosing pump and sets off an alarm indicator on the electrical control panel.
- **Overflow level:** when the solution reaches the overflow point, this switch stops the powder dosing unit/liquid polymer dosing pump and closes the water inlet solenoid valve, preventing delivery of mixed polymer solution to the drain.

PolyCendos key code

Model

PL PolyCendos

Size [l/h]	Maturing time:	30 Mins	45 Mins	60 Mins	90 Mins	120 Mins
05		1,000	750	500	333	250
10		2,000	1,500	1,000	667	500
20		4,000	3,000	2,000	1,333	1,000
40		8,000	6,000	4,000	2,667	2,000

Control Panel

- W Standard - Without control panel (Junction box)
- B Standard - Basic Plus - Buttons, lamps, PLC
- A Standard - Automatic - PLC and HMI

Type of Polyelectrolyte

- E Liquid polymers (Emulsion)
- D Dual (Powder and Emulsion polymers)

Construction

- P Standard - Polypropylene High Density - PPHD

Extra Storage Mixer

- 0 Standard - Without third mixer
- 1 Third mixer in storage tank

Hopper

- 0 Standard - Hopper 60 liters with heating
- 1 Optional - Powder feeder 100 liters with heating
- 2 Optional - Powder feeder 60 liters - low powder flow rate (250g - 1Kg)
- 3 Powder feeder 60 liters - low powder flow rate (250g - 1Kg)
- N Without Hopper (the unit work with liquid polymers)

Hopper Vibrator

- 0 Standard - Without hopper vibrator
- 1 With hopper vibrator
- N Without hopper vibrator (the unit works with liquid polymers)

Hopper Sensor Level

- 0 Standard - Without hopper sensor level
- 1 With hopper sensor level
- N Without hopper level sensor (the unit works with liquid polymers)

PL	20	B	D	P	0	0	0	0

Side Channel Blowers

Vacuum and blast air systems

Product Overview

	Single Impeller	Double Impeller	Triple Impeller
			
Connections	from 1" to 4"	from 1 ¼"to 5"	1 ¼"
Flow Rate	40 – 1,370 m^3/h	47 – 2,050 m^3/h	170 m^3/h
Pressure	70 – 480 mbar	240 – 820 mbar	1050 mbar
Vacuum	-60 – -340 mbar	-200 – -500 mbar	-340 mbar
Motor	Single or 3-Phase	Single or 3-Phase	3-Phase
Noise	46 – 71 dBA	58 – 84 dBA	72 dBA

Side Channel Blowers

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

Side channel blowers are the first choice in many automation projects for applications that require large volumes of clean, dry air to be moved with low pressures and voids. SEKO's product offering features ease of installation like our other products, with low operating noise levels and low energy consumption.

Side channel compressors and vacuum pumps

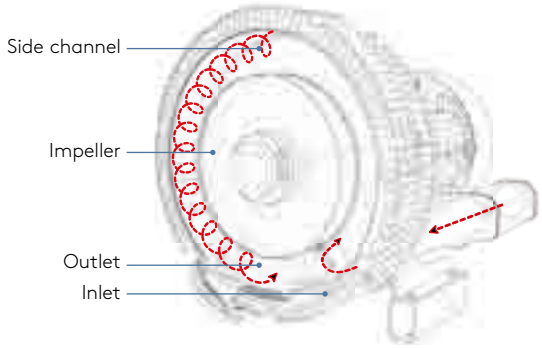
Side channel blowers work on the principle that lateral channels can operate both in suction and compression, and are designed to work in continuous service. The impeller is mounted directly on the motor shaft and this, together with a housing specially shaped to form the side channel, provides frictionless operation.

SEKO's side channel blowers are constructed of die-cast aluminium, guaranteeing maximum robustness and easy handling. Lubrication is not necessary because there is no contact between static and rotating parts.

The pumped medium is sucked in and compressed which makes it is possible to use a side channel blower to generate both a vacuum and blast air.

The rated power of the engine determines the maximum differential pressure of blower. The silencers installed on the sides of the supply and exhaust system ensures quiet operation. Maximum operational reliability, even with high differential is ensured by having the bearings outside the compression chamber.

Features & benefits

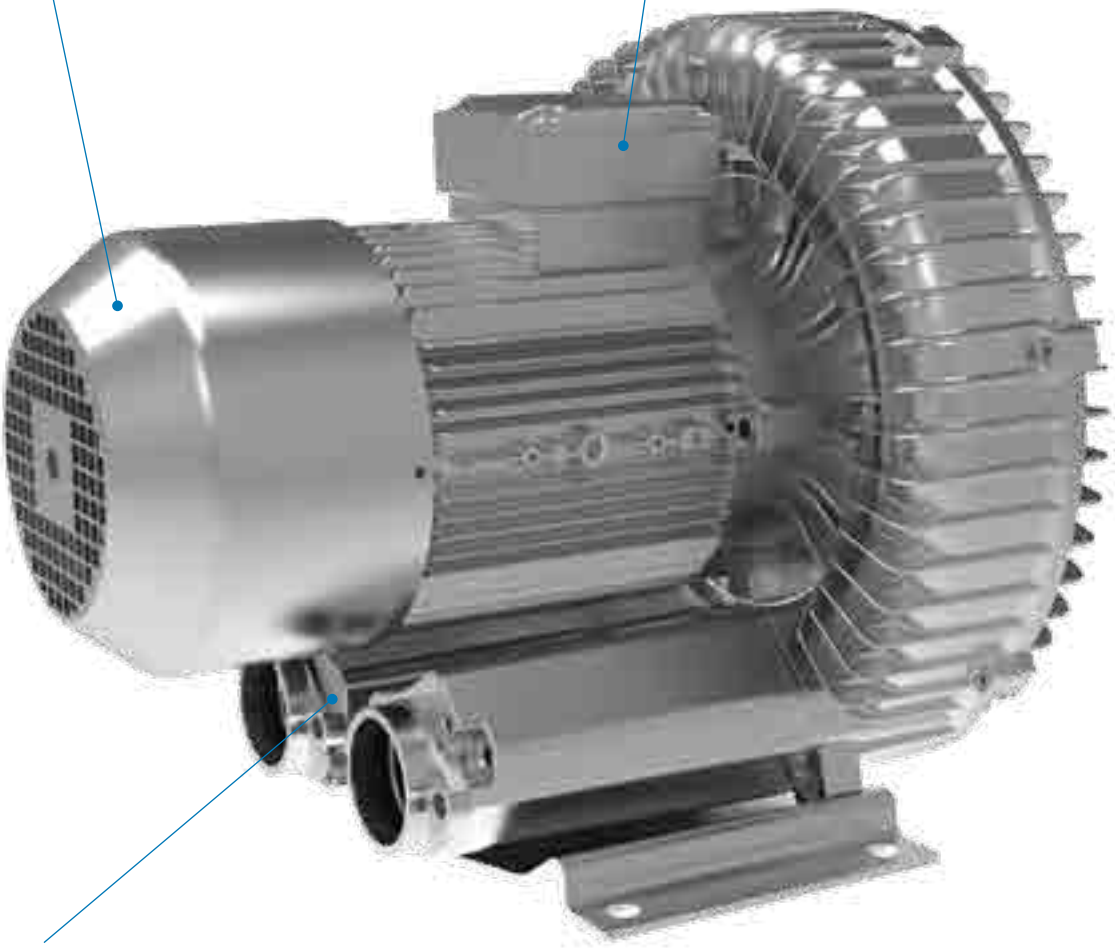


Motor advantages

All SEKO blowers use 2-pole motors with the range including both single-phase and three-phase motors. Dual frequency (50/60Hz) makes the devices usable in many regions of the world, while the design choice of placing the bearing outside of the compression chamber allows them to tolerate high working temperatures and improves the reliability and service life of the blower. The machines are suitable for operation with inverters.

Performance advantages

The precision machine tool cutting ensures the accuracy and quality of the blower and all products go through a strict mechanical and electrical performance test. By using PROE, UG, CAD and other computer-aided design software and motion simulations, designers can test and validate all features and performance of the devices prior to production commencing.



Product design advantages

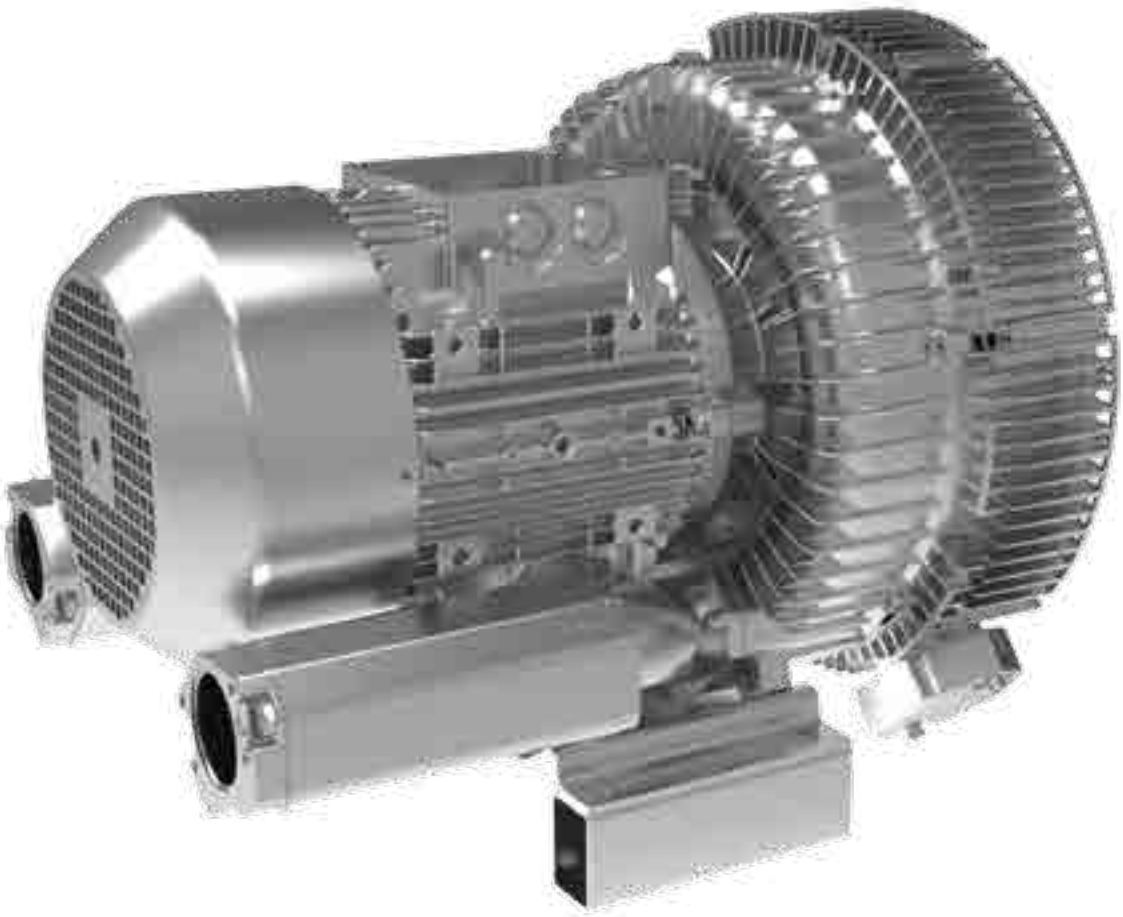
After moulding for die-casting of aluminium alloys, the machining of completed parts and the accurate cutting process guarantee an improvement in terms of precision compared to traditional technologies. The design of the impeller improves the overall performance of the machine, while its IP55 protection and class F electrical insulation make it suitable for hundreds of applications all over the world.

Operating principle

The impellers are mounted directly on the motor shaft for non-contact, frictionless compression. Maximum operational reliability, even at high differential, is ensured by the arrangement of the bearings outside the compression chamber.

The gas is taken in through the inlet. As it enters the side channel, the rotating impeller imparts velocity to the gas in the direction of rotation. Centrifugal force in the impeller blades accelerates the gas outward and pressure increases. Every rotation adds kinetic energy.

This results in the further increase of pressure along the side channel. The side channel narrows at the rotor, sweeping the gas off the impeller blades and discharging it though the outlet silencer where it exits the side channel blower.



Single Impeller

Technical data

Connection	from 1" to 4"
Flow rate	from 40 to 1,370 m³/h
Pressure	from 70 to 480 mbar
Vacuum	from -60 to -340 mbar
Motor	Single or 3-Phase
Noise	from 46 to 71 dB A

Double Impeller

Technical data

Connection	from 1 ¼"to 5"
Flow rate	from 47 to 2,050 m³/h
Pressure	from 240 to 820 mbar
Vacuum	from -200 to -500 mbar
Motor	Single or 3-Phase
Noise	from 58 to 84 dB A

Triple Impeller

Technical data

Connection	1 ¼"
Flow rate	170 m³/h
Pressure	1,050 mbar
Vacuum	-730 mbar
Motor	3-Phase
Noise	72 dB A

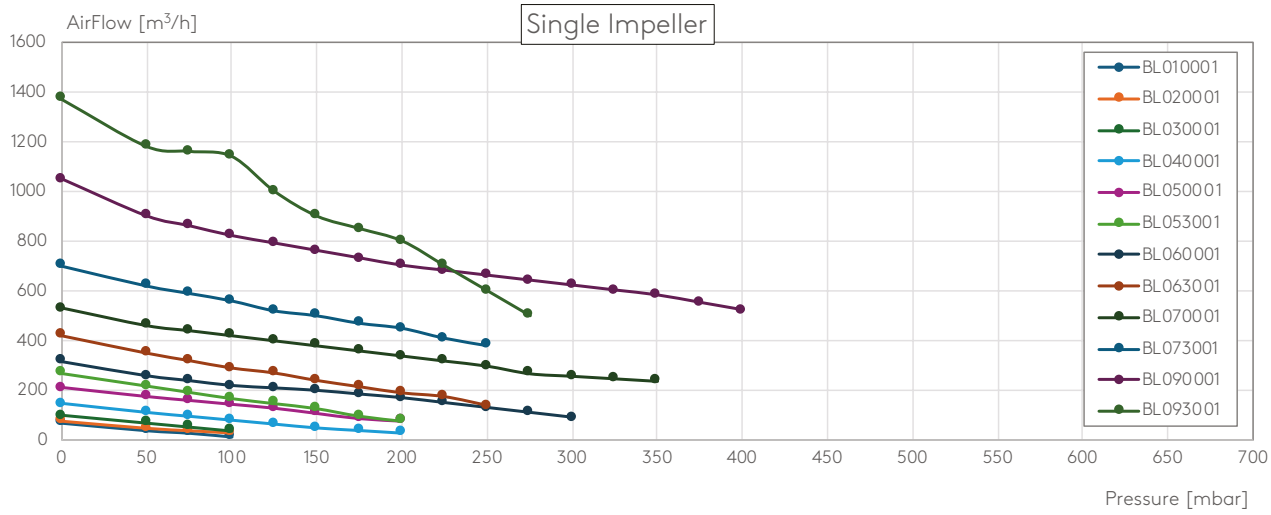
Blowers performance selection 3ph at 50 Hz (2,900 rpm)

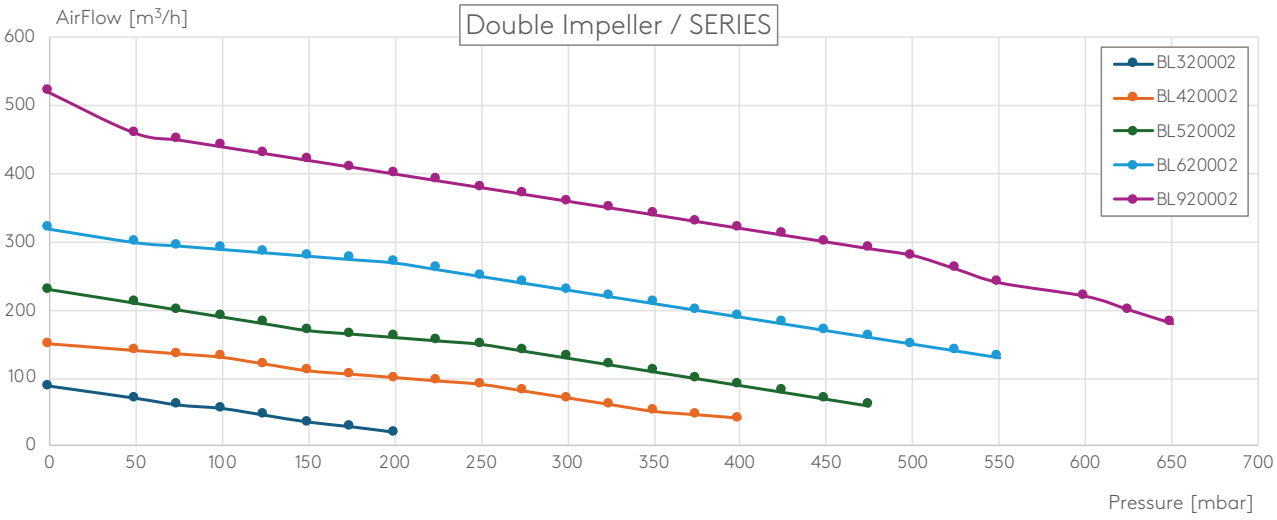
Single Impeller			Pressure (mbar)																										Noise dB (A)
			0	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	600	625	650	
1"	BL010001	kW	0.2	0.2	0.2	0.2																						48
		m³/h	70	40	30	15																						
1 ¼"	BL020001	kW	0.4	0.4	0.4	0.4																						53
		m³/h	80	50	40	30																						
	BL030001	kW	0.55	0.55	0.55	0.55																						57
		m³/h	100	70	55	40																						
1 ½"	BL040001	kW	0.85	0.85	0.85	0.85	1.3	1.3	1.3	1.3																		63
		m³/h	145	110	95	80	65	50	40	30																		
2"	BL050001	kW	1.3	1.3	1.3	1.3	1.3	1.3	1.5	2.2																		64
		m³/h	210	175	160	145	130	110	90	80																		
	BL053001	kW	1.3	1.3	1.3	1.3	1.3	1.3	2.2	2.2																		65
		m³/h	270	220	195	170	150	130	100	80																		
	BL060001	kW	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3	3	3	4														69
		m³/h	318	260	240	220	210	200	185	170	150	130	110	90														
	BL063001	kW	2.2	2.2	2.2	2.2	2.2	2.2	4	4	4	4																70
		m³/h	420	350	320	290	270	240	215	190	175	140																
2 ½"	BL070001	kW	4.3	4.3	4.3	4.3	4.3	4.3	5.5	5.5	5.5	5.5	5.5	5.5	7.5	7.5												70
		m³/h	530	460	440	420	400	380	360	340	320	300	270	260	250	240												
	BL073001	kW	4.3	4.3	4.3	4.3	4.3	5.5	5.5	7.5	7.5	7.5																70
		m³/h	700	620	590	560	520	500	470	450	410	380																
4"	BL090001	kW	8.5	8.5	8.5	8.5	8.5	8.5	8.5	12.5	12.5	12.5	15	15	15	15	18.5	18.5										74
		m³/h	1050	900	860	820	790	760	730	700	680	660	640	620	600	580	550	520										
	BL093001	kW	8.5	8.5	12.5	12.5	12.5	12.5	18.5	18.5	18.5	18.5	18.5															75
		m³/h	1370	1180	1160	1140	1000	900	850	800	700	600	500															

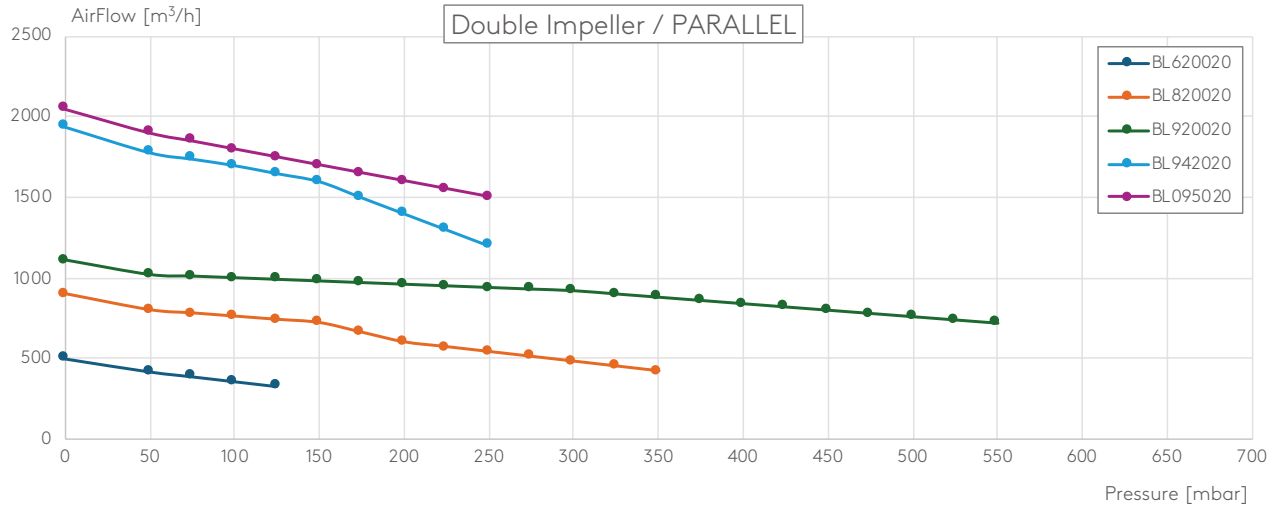
Double Impeller Series			Pressure (mbar)																										Noise dB (A)
			0	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	600	625	650	
1 ¼"	BL320002	kW	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7																		55
		m³/h	88	70	60	55	45	35	28	20																		
1 ½"	BL420002	kW	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.2	2.2	2.2	2.2	2.2	2.2	2.2										66
		m³/h	150	140	135	130	120	110	105	100	95	90	80	70	60	50	45	40										
2"	BL520002	kW	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4							72
		m³/h	230	210	200	190	180	170	165	160	155	150	140	130	120	110	100	90	80	70	60							
	BL620002	kW	4	4	4	4	4	4	4	4	4	4	4	4	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	7.5	7.5				73
		m³/h	320	300	295	290	285	280	275	270	260	250	240	230	220	210	200	190	180	170	160	150	140	130				
2 ½"	BL920002	kW	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11	11	11	11	11	74
		m³/h	520	460	450	440	430	420	410	400	390	380	370	360	350	340	330	320	310	300	290	280	260	240	220	200	180	

Double Impeller Parallel			Pressure (mbar)																										Noise dB (A)
			0	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	600	625	650	
2"	BL620020	kW	4	4	4	4	4																					74
		m³/h	500	420	390	360	330																					
2 ½"	BL820020	kW	7.5	7.5	7.5	7.5	7.5	7.5	7.5	11	11	11	11	11	11	11												74
		m³/h	900	800	780	760	740	720	660	600	570	540	510	480	450	420												
4"	BL920020	kW	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	20	20	20	20	20	20	25	25				74
		m³/h	1110	1020	1010	1000	990	980	970	960	950	940	930	920	900	880	860	840	820	800	780	760	740	720				
	BL942020	kW	15	15	15	15	20	20	20	20	25	25																75
		m³/h	1940	1780	1740	1700	1650	1600	1500	1400	1300	1200																
5"	BL095020	kW	15	15	15	15	15	15	20	20	20	25																75
		m³/h	2050	1900	1850	1800	1750	1700	1650	1600	1550	1500																

Blowers performance selection 3ph at 50 Hz (2,900 rpm)







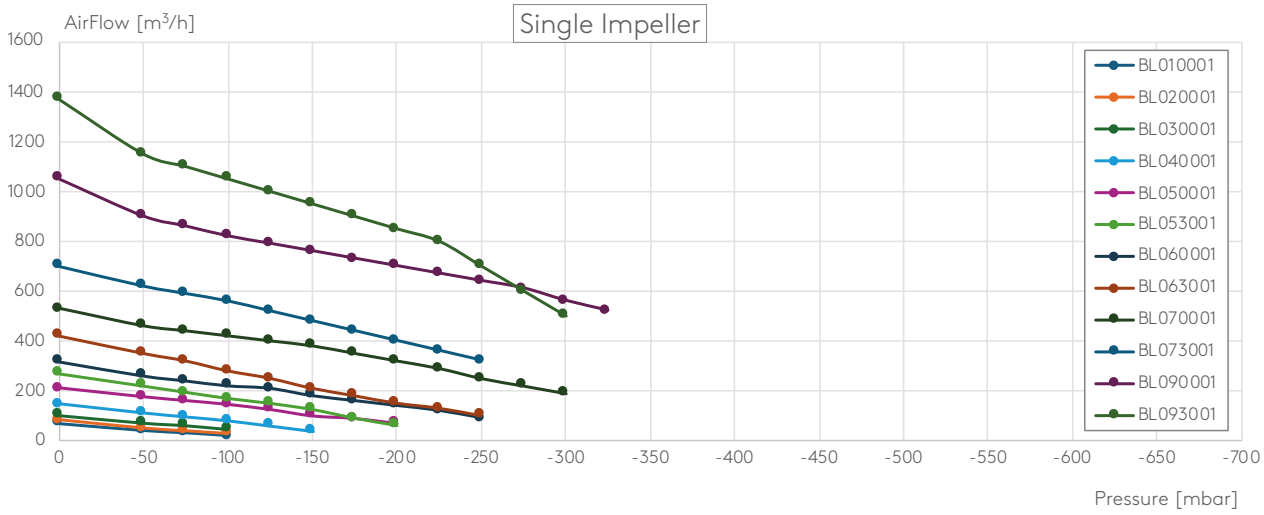
Exhausters performance selection 3ph at 50 Hz (2,900 rpm)

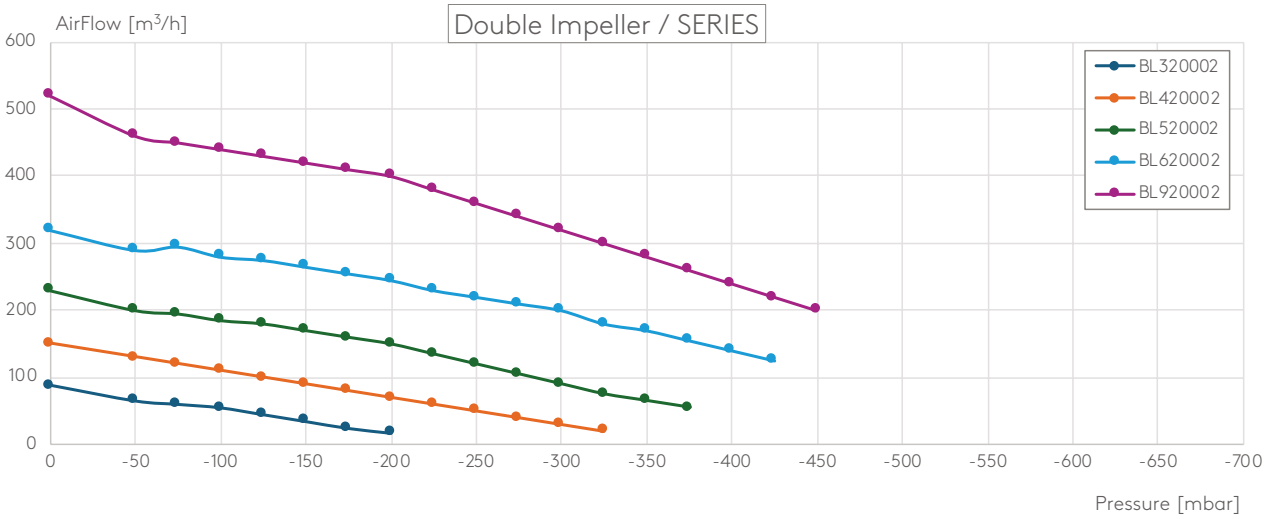
Single Impeller			Pressure (mbar)																									Noise dB (A)
			0	-50	-75	-100	-125	-150	-175	-200	-225	-250	-275	-300	-325	-350	-375	-400	-425	-450	-475	-500	-525	-550	-600	-625	-650	
1"	BL010001	kW	0.2	0.2	0.2	0.2																						48
		m³/h	70	40	30	18																						
1 ¼"	BL020001	kW	0.4	0.4	0.4	0.4																						53
		m³/h	80	50	40	30																						
	BL030001	kW	0,55	0,55	0,55	0,55																						57
		m³/h	100	70	60	45																						
1 ½"	BL040001	kW	0.85	0.85	0.85	0.85	0.85	0.85																				63
		m³/h	145	110	95	80	60	40																				
2"	BL050001	kW	1.3	1.3	1.3	1.3	1.3	1.3	1.5	1.5																		64
		m³/h	210	175	160	145	125	100	90	70																		
	BL053001	kW	1.5	1.5	1.5	1.5	1.5	1.5	2.2	2.2																		65
		m³/h	270	220	195	170	150	125	90	60																		
	BL060001	kW	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3	3																69
		m³/h	318	260	240	220	210	180	160	140	120	90																
	BL063001	kW	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3	4	4																70
		m³/h	420	350	320	280	250	210	180	150	130	100																
2 ½"	BL070001	kW	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	5.5	5.5	5.5	5.5														70
		m³/h	530	460	440	420	400	380	350	320	290	250	220	190														
	BL073001	kW	4	4	4	4	4	4	5.5	5.5	7.5	7.5																70
		m³/h	700	620	590	560	520	480	440	400	360	320																
4"	BL090001	kW	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.5	12.5	12.5	12.5	15	18.5													74
		m³/h	1050	900	860	820	790	760	730	700	670	640	610	560	520													
	BL093001	kW	8.5	8.5	8.5	8.5	12.5	12.5	12.5	12.5	18.5	18.5	18.5	18.5														75
		m³/h	1370	1150	1100	1050	1000	950	900	850	800	700	600	500														

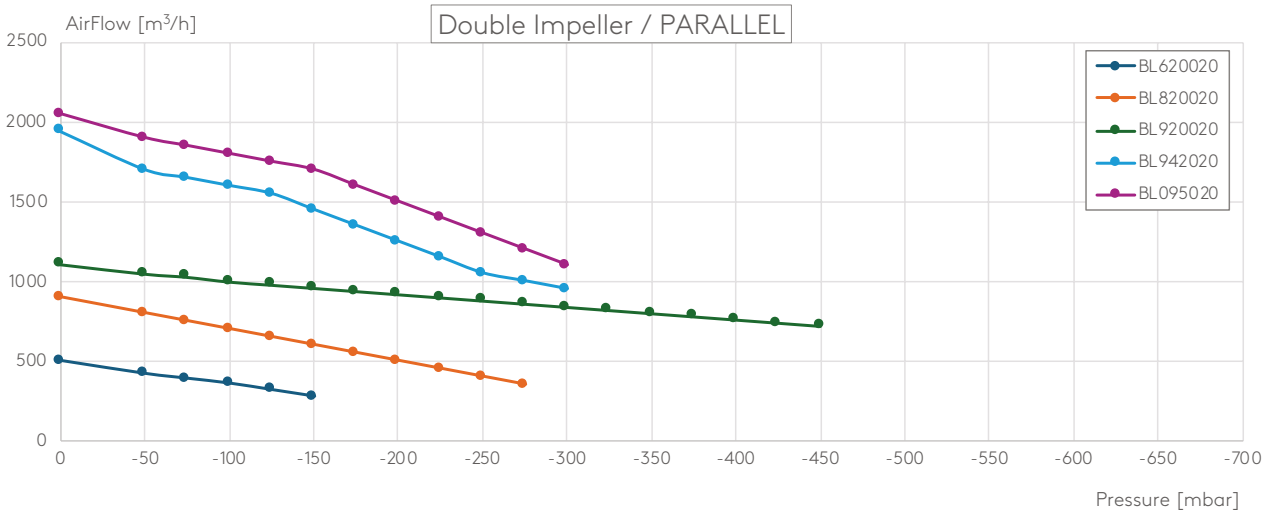
Double Impeller Series			Pressure (mbar)																									Noise dB (A)
			0	-50	-75	-100	-125	-150	-175	-200	-225	-250	-275	-300	-325	-350	-375	-400	-425	-450	-475	-500	-525	-550	-600	-625	-650	
1 ¼"	BL320002	kW	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7																		55
		m³/h	88	65	60	55	45	35	25	18																		
1 ½"	BL420002	kW	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	2.2	2.2													66
		m³/h	150	130	120	110	100	90	80	70	60	50	40	30	20													
2"	BL520002	kW	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4											72
		m³/h	230	200	195	185	180	170	160	150	135	120	105	90	75	65	55											
	BL620002	kW	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5.5	5.5	5.5									73
		m³/h	320	290	295	280	275	265	255	245	230	220	210	200	180	170	155	140	125									
2 ½"	BL920002	kW	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	11	15								74
		m³/h	520	460	450	440	430	420	410	400	380	360	340	320	300	280	260	240	220	200								

Double Impeller Parallel			Pressure (mbar)																									Noise dB (A)
			0	-50	-75	-100	-125	-150	-175	-200	-225	-250	-275	-300	-325	-350	-375	-400	-425	-450	-475	-500	-525	-550	-600	-625	-650	
2"	BL620020	kW	4	4	4	4	4	4																				74
		m³/h	500	420	390	360	320	280																				
2 ½"	BL820020	kW	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	11	11	11															74
		m³/h	900	800	750	700	650	600	550	500	450	400	350															
4"	BL920020	kW	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5	20	25								74
		m³/h	1110	1050	1030	1000	980	960	940	920	900	880	860	840	820	800	780	760	740	720								
	BL942020	kW	15	15	15	15	15	20	20	20	20	25	25	25														75
		m³/h	1940	1700	1650	1600	1550	1450	1350	1250	1150	1050	1000	950														
5"	BL095020	kW	15	15	15	15	15	15	20	20	20	20	25	25														75
		m³/h	2050	1900	1850	1800	1750	1700	1600	1500	1400	1300	1200	1100														

Exhausters performance selection 3ph at 50 Hz (2,900 rpm)







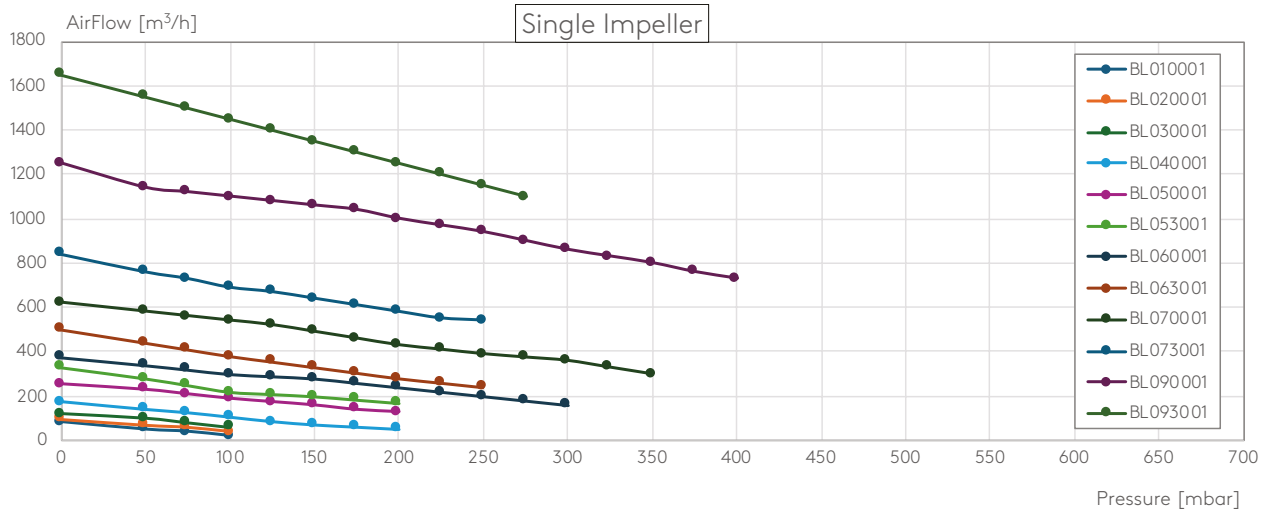
Blowers performance selection 3ph at 60 Hz (3,500 rpm)

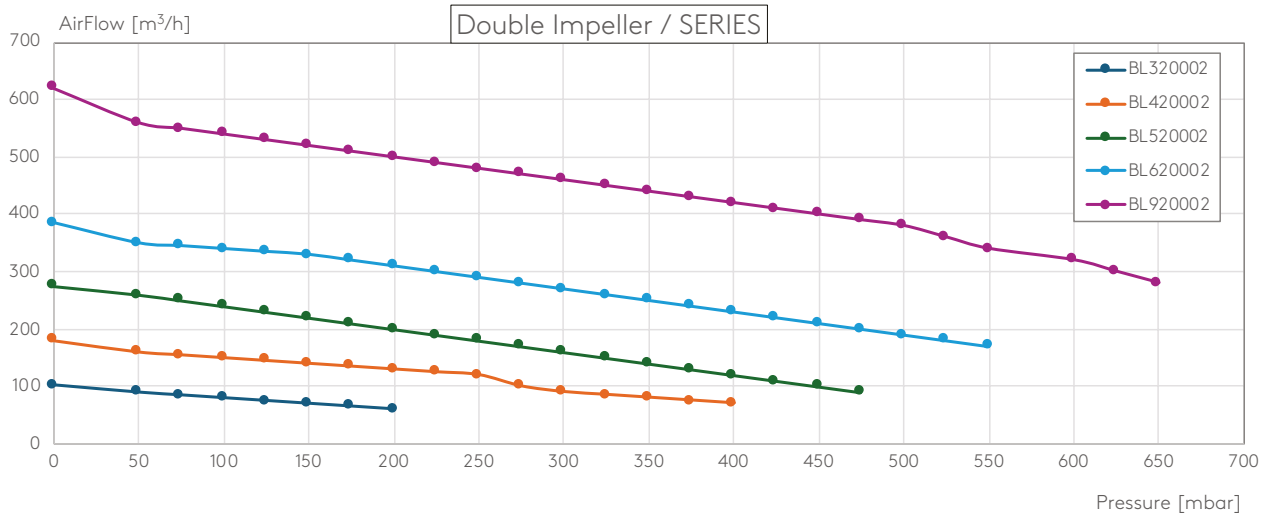
Single Impeller			Pressure (mbar)																										Noise dB (A)
			0	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	600	625	650	
1"	BL010001	kW	0.23	0.23	0.23	0.23																						50
		m³/h	85	50	40	20																						
1 ¼"	BL020001	kW	0.5	0.5	0.5	0.5																						56
		m³/h	98	70	60	40																						
	BL030001	kW	0.62	0.62	0.62	0.62																						60
		m³/h	120	100	80	60																						
1 ½"	BL040001	kW	0.95	0.95	0.95	0.95	1.5	1.5	1.5	1.5																		64
		m³/h	175	140	125	105	85	70	60	50																		
2"	BL050001	kW	1.5	1.5	1.5	1.5	1.5	1.5	2.1	2.55																		70
		m³/h	255	230	210	190	175	160	140	130																		
	BL053001	kW	2.05	2.05	2.05	2.05	2.05	2.05	2.55	2.55																		71
		m³/h	330	280	250	220	210	200	185	170																		
	BL060001	kW	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	3.45	3.45	3.45	4.6														72
		m³/h	376	340	320	300	290	280	260	240	220	200	180	160														
	BL063001	kW	2.55	2.55	2.55	2.55	2.55	2.55	4.6	4.6	4.6	4.6																73
		m³/h	500	440	410	380	355	330	305	280	260	240																
2 ½"	BL070001	kW	4.6	4.6	4.6	4.6	4.6	4.6	6.3	6.3	6.3	6.3	6.3	6.3	8.6	8.6												74
		m³/h	620	580	560	540	520	490	460	430	410	390	375	360	330	300												
	BL073001	kW	4.6	4.6	4.6	6.3	6.3	6.3	6.3	8.6	8.6	8.6																74
		m³/h	840	760	730	690	670	640	610	580	550	540																
4"	BL090001	kW	9.8	9.8	9.8	9.8	9.8	9.8	9.8	14.5	14.5	14.5	17.5	17.5	17.5	17.5	21.3	21.3										79
		m³/h	1250	1140	1120	1100	1080	1060	1040	1000	970	940	900	860	830	800	760	730										
	BL093001	kW	9.8	9.8	14.5	14.5	14.5	14.5	21.3	21.3	21.3	21.3	21.3															80
		m³/h	1650	1550	1500	1450	1400	1350	1300	1250	1200	1150	1100															

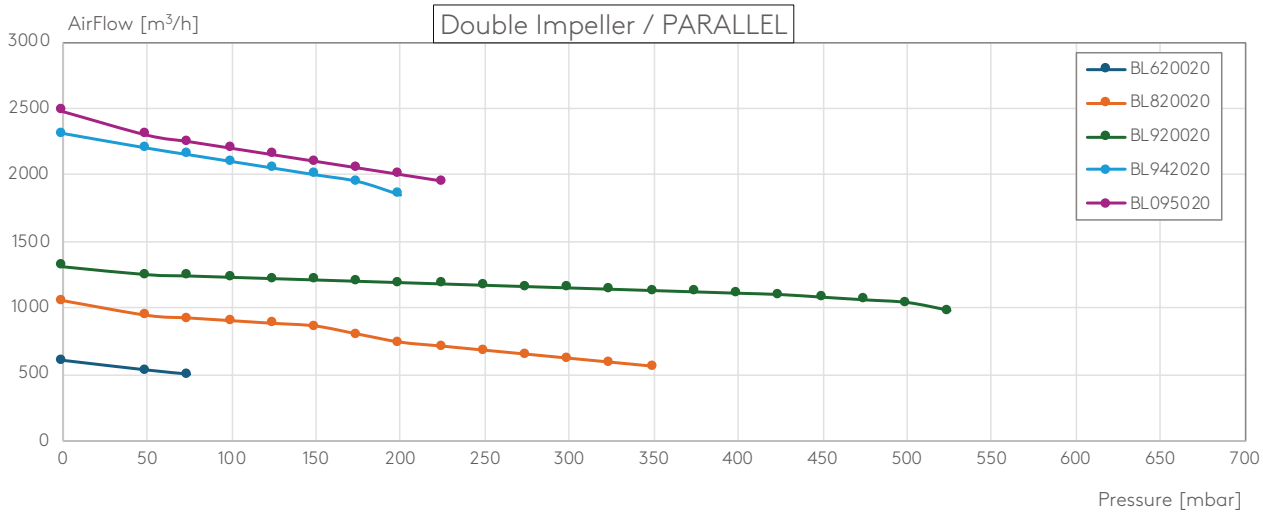
Double Impeller Series			Pressure (mbar)																										Noise dB (A)
			0	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	600	625	650	
1 ¼"	BL320002	kW	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83																		61
		m³/h	103	90	85	80	75	70	65	60																		
1 ½"	BL420002	kW	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.55	2.55	2.55	2.55	2.55	2.55										69
		m³/h	180	160	155	150	145	140	135	130	125	120	100	90	85	80	75	70										
2"	BL520002	kW	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	4.6	4.6	4.6	4.6	4.6							74
		m³/h	275	260	250	240	230	220	210	200	190	180	170	160	150	140	130	120	110	100	90							
	BL620002	kW	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	8.6	8.6				76
		m³/h	385	350	345	340	335	330	320	310	300	290	280	270	260	250	240	230	220	210	200	190	180	170				
2 ½"	BL920002	kW	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	17.3	17.3	78
		m³/h	620	560	550	540	530	520	510	500	490	480	470	460	450	440	430	420	410	400	390	380	360	340	320	300	280	

Double Impeller Parallel			Pressure (mbar)																										Noise dB (A)
			0	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	600	625	650	
2"	BL620020	kW	4.6	4.6	4.6																							78
		m³/h	600	530	500																							
2 ½"	BL820020	kW	8.6	8.6	8.6	8.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6												78
		m³/h	1050	940	920	900	880	860	800	740	710	680	650	620	590	560												
4"	BL920020	kW	19	19	19	19	19	19	19	19	19	19	19	19	23	23	23	23	23	29	29	29	29					78
		m³/h	1310	1250	1240	1230	1220	1210	1200	1190	1180	1170	1160	1150	1140	1130	1120	1110	1100	1080	1060	1040	980					
	BL942020	kW	17.5	23	23	23	29	29	29	29																		84
		m³/h	2310	2200	2150	2100	2050	2000	1950	1850																		
5"	BL095020	kW	17.5	17.5	17.5	17.5	23	23	23	29	29																	84
		m³/h	2480	2300	2250	2200	2150	2100	2050	2000	1950																	

Blowers performance selection 3ph at 60 Hz (3,500 rpm)







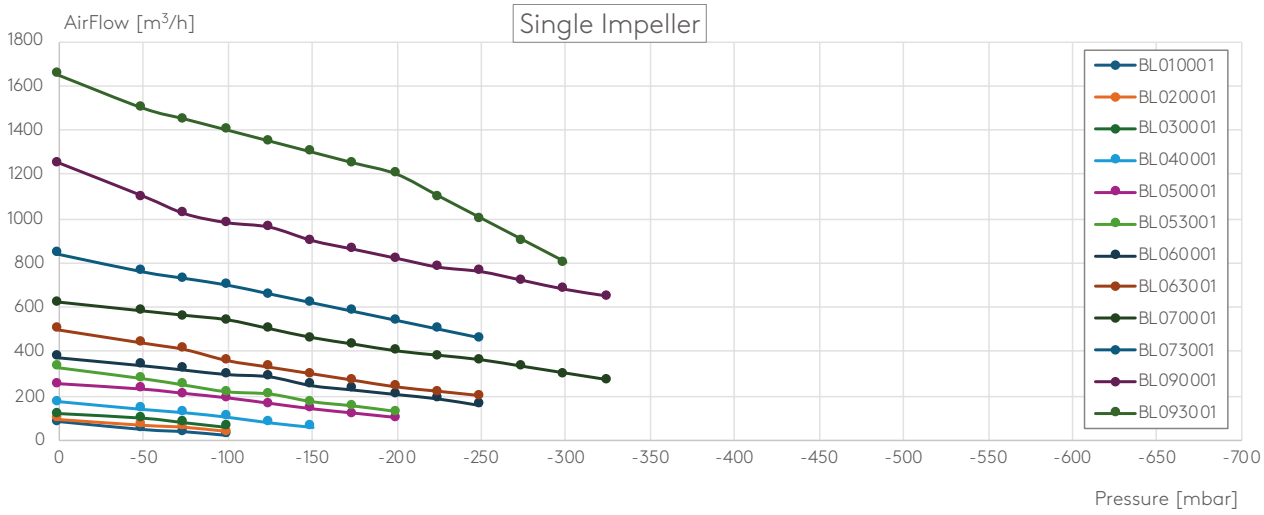
Exhausters performance selection 3ph at 60 Hz (3,500 rpm)

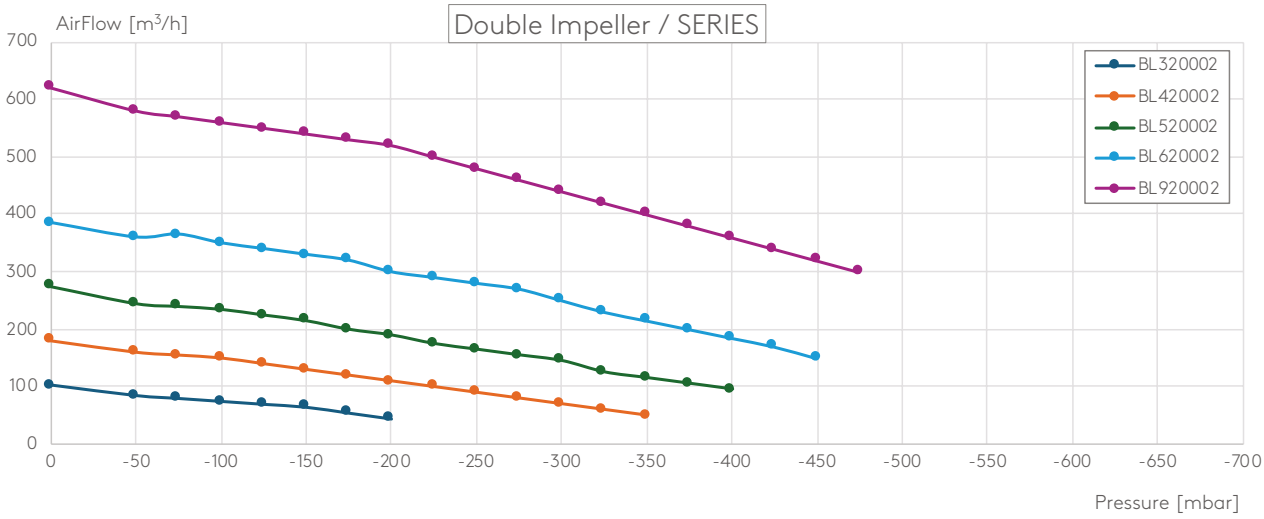
Single Impeller			Pressure (mbar)																									Noise dB (A)
			0	-50	-75	-100	-125	-150	-175	-200	-225	-250	-275	-300	-325	-350	-375	-400	-425	-450	-475	-500	-525	-550	-600	-625	-650	
1"	BL010001	kW	0.23	0.23	0.23	0.23																						50
		m³/h	85	50	40	24																						
1 ¼"	BL020001	kW	0.5	0.5	0.5	0.5																						56
		m³/h	98	70	60	40																						
	BL030001	kW	0.62	0.62	0.62	0.62																						60
		m³/h	120	100	80	60																						
1 ½"	BL040001	kW	0.95	0.95	0.95	0.95	0.95	0.95																				64
		m³/h	175	140	125	105	80	60																				
2"	BL050001	kW	1.5	1.5	1.5	1.5	1.5	1.5	2.1	2.1																		70
		m³/h	255	230	210	190	165	140	120	100																		
	BL053001	kW	2.05	2.05	2.05	2.05	2.05	2.05	2.55	2.55																		71
		m³/h	330	280	250	220	210	175	155	130																		
	BL060001	kW	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	3.45	3.45																72
		m³/h	376	340	320	300	290	250	230	210	190	160																
	BL063001	kW	2.55	2.55	2.55	2.55	2.55	2.55	3.45	3.45	4.6	4.6																73
		m³/h	500	440	410	360	330	300	270	240	220	200																
2 ½"	BL070001	kW	4.8	4.8	4.8	4.8	4.8	4.8	6.3	6.3	6.3	6.3	6.3	6.3	8.6													74
		m³/h	620	580	560	540	500	460	430	400	380	360	330	300	270													
	BL073001	kW	4.8	4.8	4.8	4.8	4.8	4.8	6.3	8.6	8.6	8.6																74
		m³/h	840	760	730	700	660	620	580	540	500	460																
4"	BL090001	kW	9.8	9.8	9.8	9.8	9.8	9.8	9.8	14.5	14.5	14.5	17.5	17.5	21.3													79
		m³/h	1250	1100	1020	980	960	900	860	820	780	760	720	680	650													
	BL093001	kW	9.8	9.8	9.8	14.5	14.5	14.5	21.3	21.3	21.3	21.3	21.3	21.3														80
		m³/h	1650	1500	1450	1400	1350	1300	1250	1200	1100	1000	900	800														

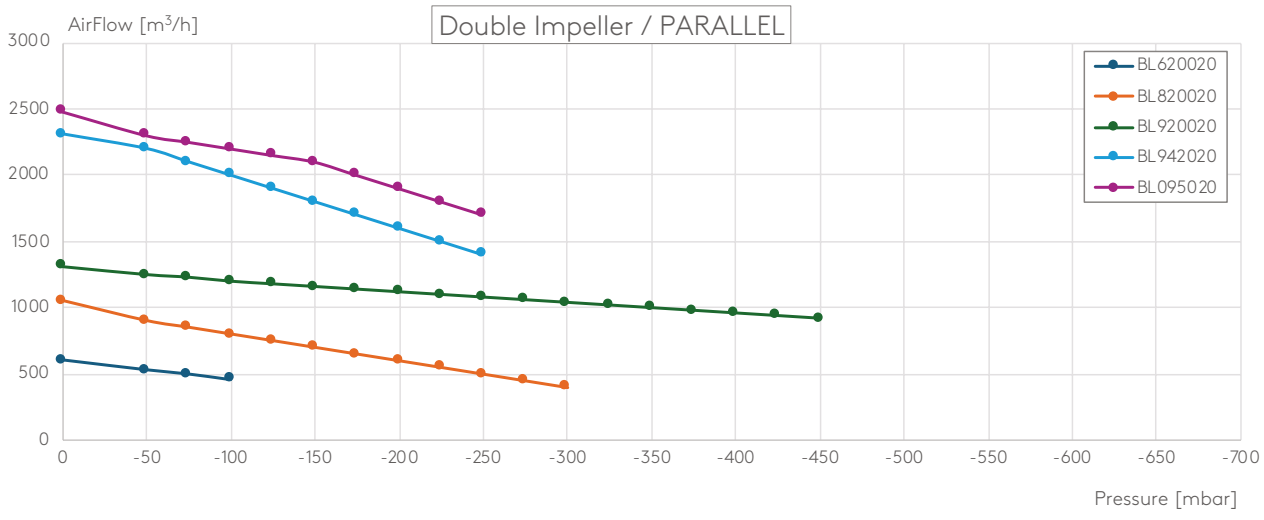
Double Impeller Series			Pressure (mbar)																									Noise dB (A)
			0	-50	-75	-100	-125	-150	-175	-200	-225	-250	-275	-300	-325	-350	-375	-400	-425	-450	-475	-500	-525	-550	-600	-625	-650	
1 ¼"	BL320002	kW	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83																		61
		m³/h	103	85	80	75	70	65	55	45																		
1 ½"	BL420002	kW	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.55	2.55												69
		m³/h	180	160	155	150	140	130	120	110	100	90	80	70	60	50												
2"	BL520002	kW	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	4.6	4.6										74
		m³/h	275	245	240	235	225	215	200	190	175	165	155	145	125	115	105	95										
	BL620002	kW	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	6.3	6.3	6.3	6.3	6.3								76
		m³/h	385	360	365	350	340	330	320	300	290	280	270	250	230	215	200	185	170	150								
2 ½"	BL920002	kW	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	12.6	12.6	12.6	12.6	17.3							78
		m³/h	620	580	570	560	550	540	530	520	500	480	460	440	420	400	380	360	340	320	300							

Double Impeller Parallel			Pressure (mbar)																									Noise dB (A)
			0	-50	-75	-100	-125	-150	-175	-200	-225	-250	-275	-300	-325	-350	-375	-400	-425	-450	-475	-500	-525	-550	-600	-625	-650	
2"	BL620020	kW	4.6	4.6	4.6	4.6																						78
		m³/h	600	530	500	460																						
2 ½"	BL820020	kW	8.6	8.6	8.6	8.6	8.6	8.6	12.6	12.6	12.6	12.6	12.6	12.6														78
		m³/h	1050	900	850	800	750	700	650	600	550	500	450	400														
4"	BL920020	kW	19	19	19	19	19	19	19	19	19	19	19	19	19	23	23	23	23	29								78
		m³/h	1310	1250	1230	1200	1180	1160	1140	1120	1100	1080	1060	1040	1020	1000	980	960	940	920								
	BL942020	kW	17.5	17.5	17.5	17.5	17.5	23	29	29	29	29																84
		m³/h	2310	2200	2100	2000	1900	1800	1700	1600	1500	1400																
5"	BL095020	kW	17.5	17.5	17.5	17.5	23	23	23	29	29	29																84
		m³/h	2480	2300	2250	2200	2150	2100	2000	1900	1800	1700																

Exhausters performance selection 3ph at 60 Hz (3,500 rpm)







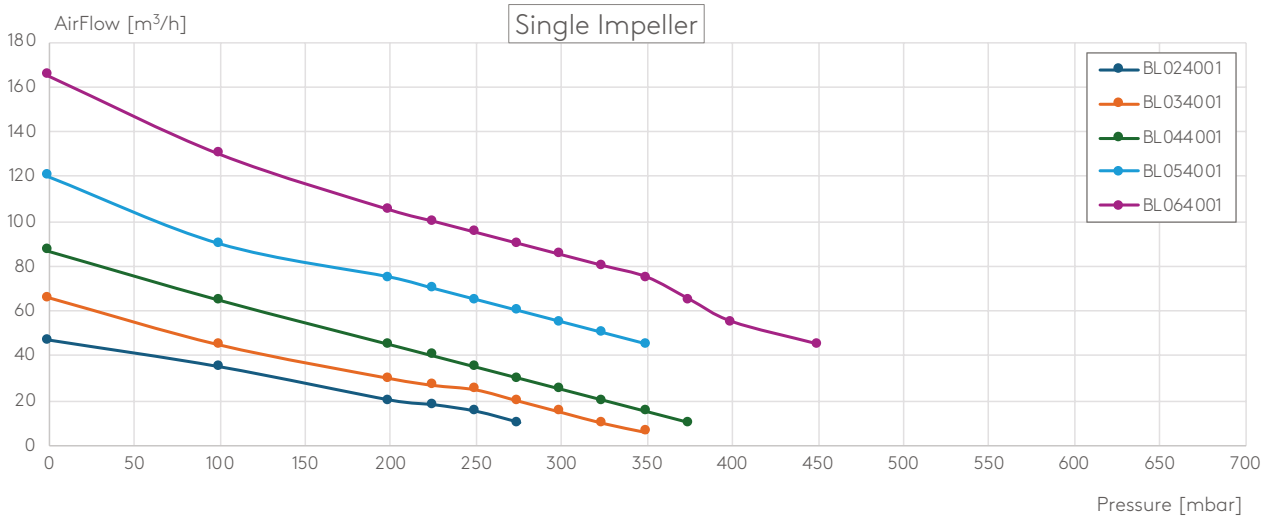
Blowers HP performance selection 3ph at 50 Hz (2,900 rpm)

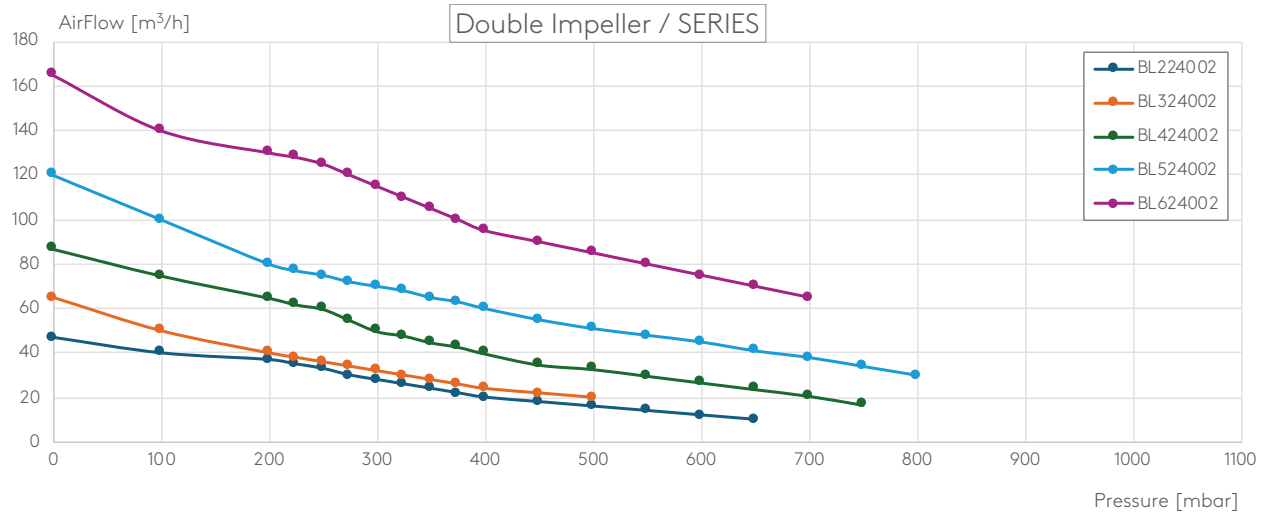
Single Impeller			Pressure (mbar)																									Noise dB (A)
			0	100	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	
1 ¼"	BL024001	kW	0.55	0.55	0.55	0.55	0.55	0.55																				57
		m³/h	47	35	20	18	15	10																				
	BL034001	kW	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81																	57
		m³/h	66	45	30	27	25	20	15	10	6																	
	BL044001	kW	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1																58
		m³/h	87	65	45	40	35	30	25	20	15	10																
	BL054001	kW	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6																	64
		m³/h	120	90	75	70	65	60	55	50	45																	
	BL064001	kW	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.3	3.3	3.3														65
		m³/h	165	130	105	100	95	90	85	80	75	65	55	45														

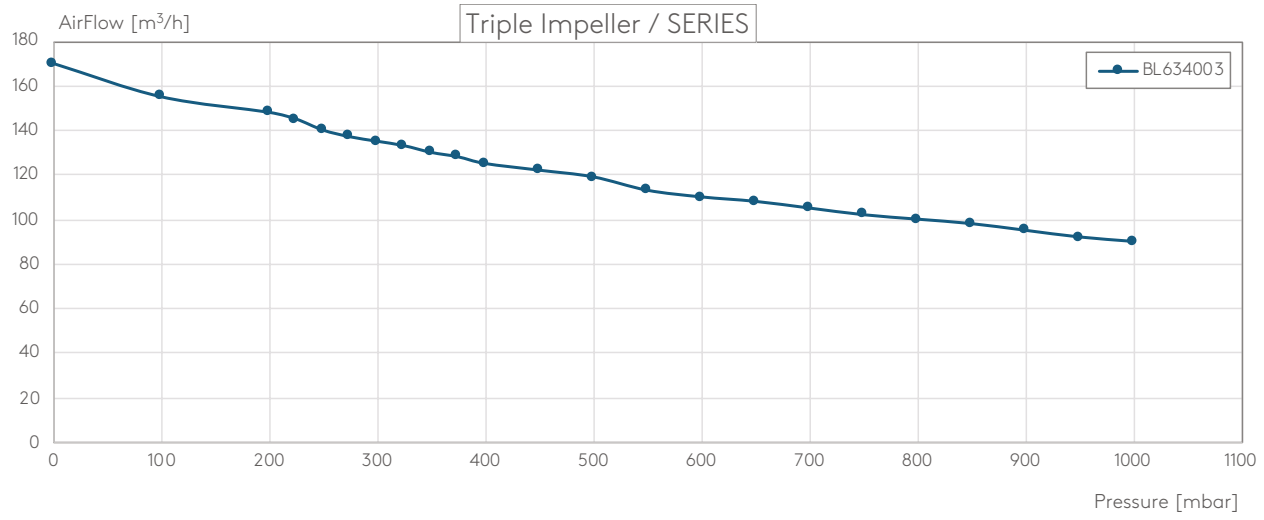
Double Impeller Series			Pressure (mbar)																									Noise dB (A)
			0	100	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	
1 ¼"	BL224002	kW	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	1.6	1.6	1.6	1.6										58
		m³/h	47	40	37	35	33	30	28	26	24	22	20	18	16	14	12	10										
	BL324002	kW	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.6													59
		m³/h	65	50	40	38	36	34	32	30	28	26	24	22	20													
	BL424002	kW	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.3	3.3	3.3	3.3	3.3	3.3								61
		m³/h	87	75	65	62	60	55	50	48	45	43	40	35	33	30	27	24	21	17								
	BL524002	kW	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	4.3	4.3	4.3	4.3	4.3	4.3	4.3							64
		m³/h	120	100	80	77	75	72	70	68	65	63	60	55	51	48	45	41	38	34	30							
	BL624002	kW	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	5.5	5.5	5.5									67
		m³/h	165	140	130	128	125	120	115	110	105	100	95	90	85	80	75	70	65									

Triple Impeller Series			Pressure (mbar)																									Noise dB (A)
			0	100	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	
1 ¼"	BL634003	kW	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5			72
		m³/h	170	155	148	145	140	137	135	133	130	128	125	122	119	113	110	108	105	102	100	98	95	92	90			

Blowers HP performance selection 3ph at 50 Hz (2,900 rpm)







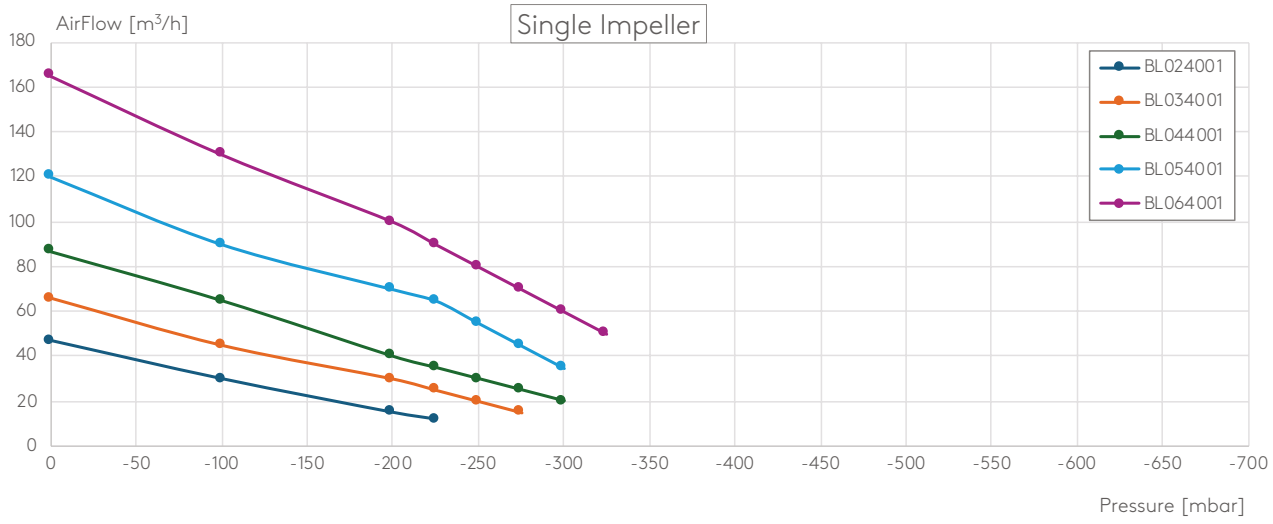
Exhausters HP performance selection 3ph at 50 Hz (2,900 rpm)

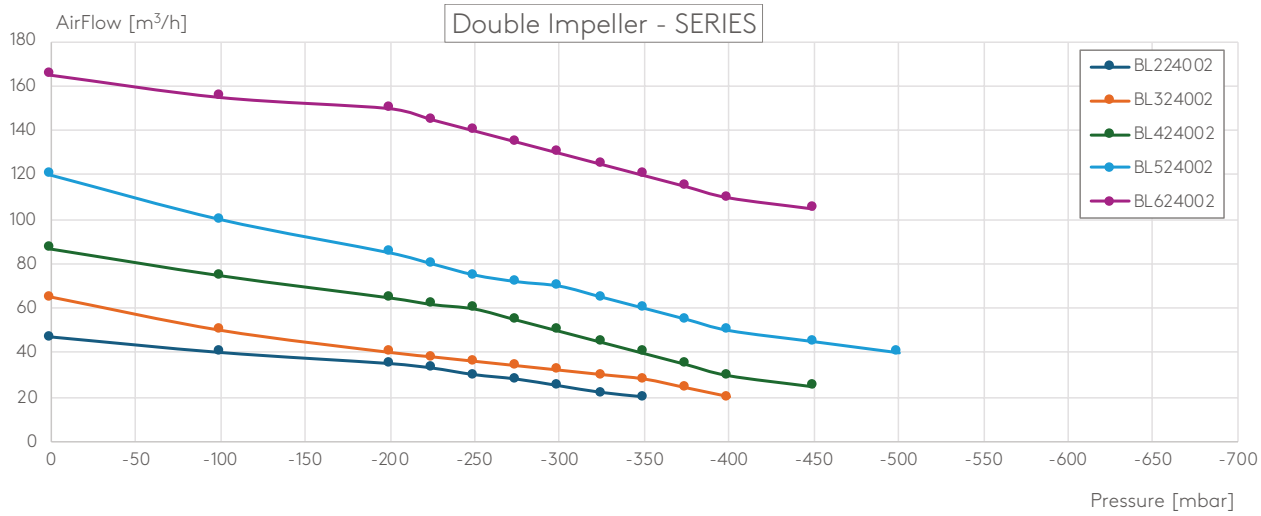
Single Impeller			Pressure (mbar)																									Noise
			0	-100	-200	-225	-250	-275	-300	-325	-350	-375	-400	-450	-500	-550	-600	-650	-700	-750	-800	-850	-900	-950	-1000	-1050	-1100	dB (A)
1 ¼"	BL024001	kW	0.55	0.55	0.55	0.55																						57
		m³/h	47	30	15	12																						
	BL034001	kW	0.81	0.81	0.81	0.81	0.81	0.81																				57
		m³/h	66	45	30	25	20	15																				
	BL044001	kW	1.1	1.1	1.1	1.1	1.1	1.1	1.1																			58
		m³/h	87	65	40	35	30	25	20																			
	BL054001	kW	1.6	1.6	1.6	1.6	1.6	1.6	1.6																			64
		m³/h	120	90	70	65	55	45	35																			
	BL064001	kW	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2																		65
		m³/h	165	130	100	90	80	70	60	50																		

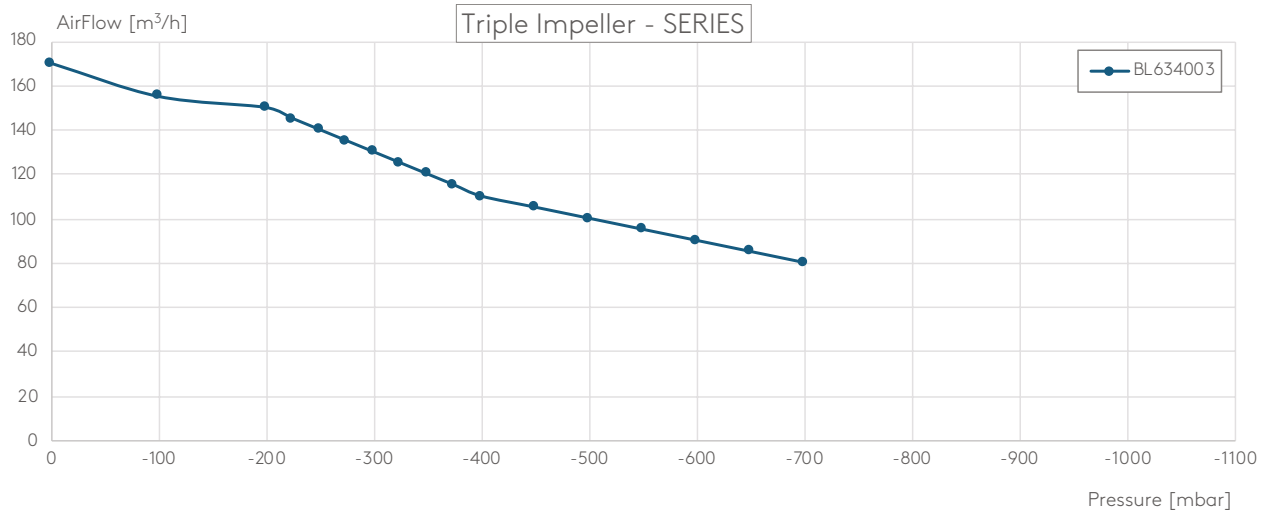
Double Impeller Series			Pressure (mbar)																									Noise
			0	-100	-200	-225	-250	-275	-300	-325	-350	-375	-400	-450	-500	-550	-600	-650	-700	-750	-800	-850	-900	-950	-1000	-1050	-1100	dB (A)
1 ¼"	BL224002	kW	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81																	58
		m³/h	47	40	35	33	30	28	25	22	20																	
	BL324002	kW	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1															59
		m³/h	65	50	40	38	36	34	32	30	28	24	20															
	BL424002	kW	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6														61
		m³/h	87	75	65	62	60	55	50	45	40	35	30	25														
	BL524002	kW	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	4.3													64
		m³/h	120	100	85	80	75	72	70	65	60	55	50	45	40													
	BL624002	kW	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3														67
		m³/h	165	155	150	145	140	135	130	125	120	115	110	105														

Triple Impeller Series			Pressure (mbar)																									Noise
			0	-100	-200	-225	-250	-275	-300	-325	-350	-375	-400	-450	-500	-550	-600	-650	-700	-750	-800	-850	-900	-950	-1000	-1050	-1100	dB (A)
1 ¼"	BL634003	kW	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5									72
		m³/h	170	155	150	145	140	135	130	125	120	115	110	105	100	95	90	85	80									

Exhausters HP performance selection 3ph at 50 Hz (2,900 rpm)







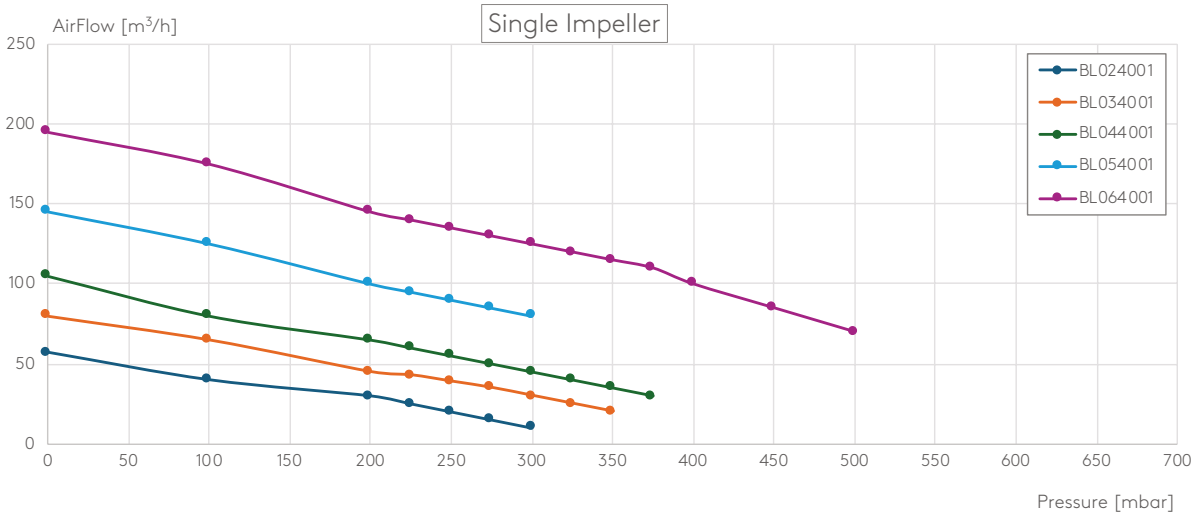
Blowers HP performance selection 3ph at 60 Hz (3,500 rpm)

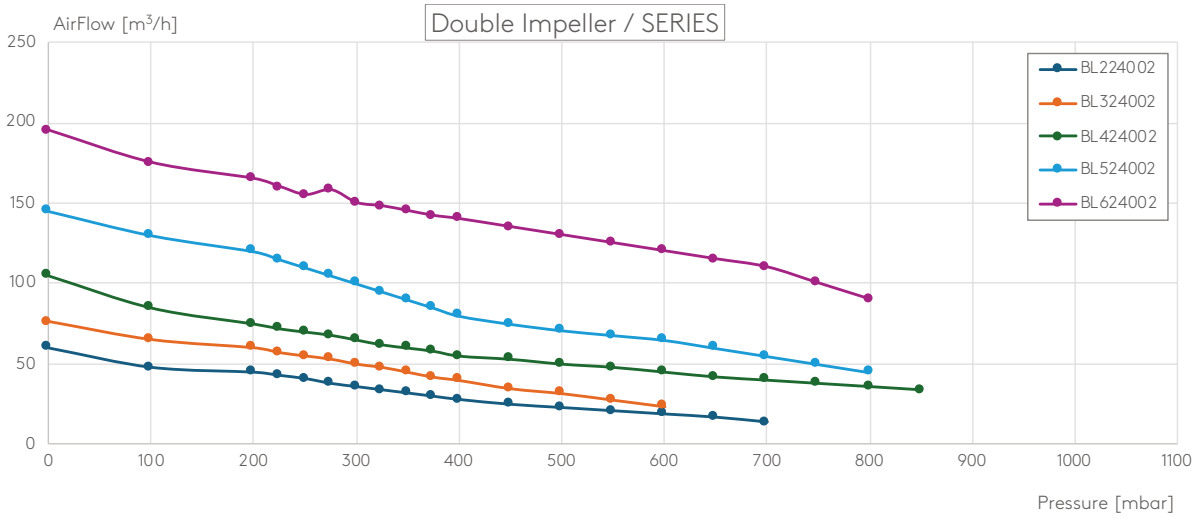
Single Impeller			Pressure (mbar)																									Noise dB (A)
			0	100	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	
1 ¼"	BL024001	kW	0.63	0.63	0.63	0.63	0.63	0.63	0.63																			62
		m³/h	57	40	30	25	20	15	10																			
	BL034001	kW	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94																	62
		m³/h	80	65	45	43	39	35	30	25	20																	
	BL044001	kW	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3																62
		m³/h	105	80	65	60	55	50	45	40	35	30																
	BL054001	kW	2.05	2.05	2.05	2.05	2.05	2.05	2.05																			68
		m³/h	145	125	100	95	90	85	80																			
	BL064001	kW	2.55	2.55	2.55	2.55	2.55	2.55	2.55	3.8	3.8	3.8	3.8	3.8	3.8													71
		m³/h	195	175	145	140	135	130	125	120	115	110	100	85	70													

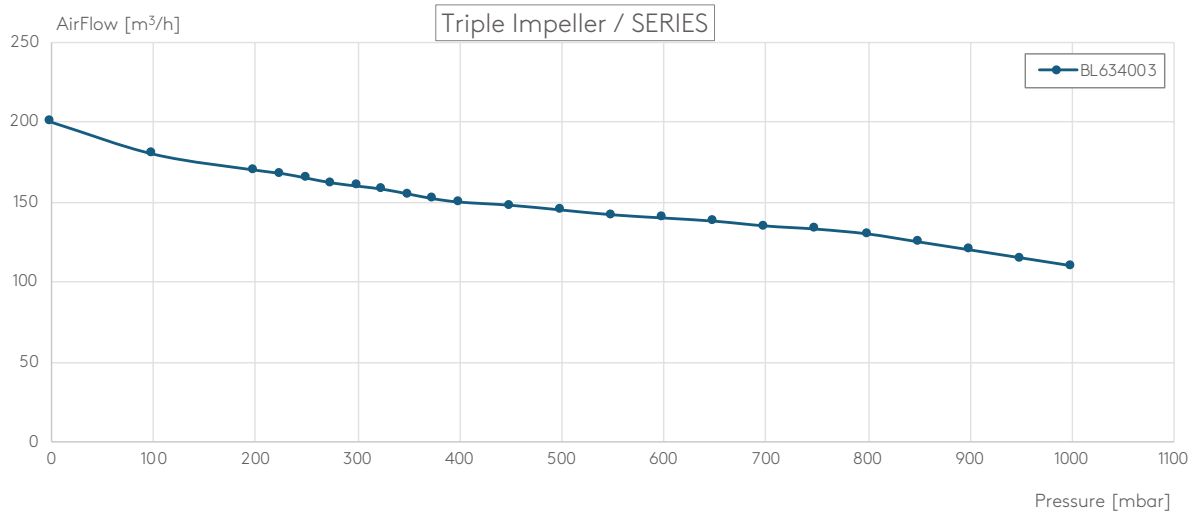
Double Impeller Series			Pressure (mbar)																									Noise dB (A)
			0	100	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	
1 ¼"	BL224002	kW	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	2.05	2.05	2.05	2.05	2.05									62
		m³/h	60	48	45	43	41	38	36	34	32	30	28	25	23	21	19	17	14									
	BL324002	kW	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.05	2.05	2.05											62
		m³/h	76	65	60	57	55	53	50	48	45	42	40	35	32	28	24											
	BL424002	kW	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8						66
		m³/h	105	85	75	72	70	68	65	62	60	58	55	53	50	48	45	42	40	38	36	34						
	BL524002	kW	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	4.8	4.8	4.8	4.8	4.8	4.8	4.8							70
		m³/h	145	130	120	115	110	105	100	95	90	85	80	75	71	68	65	60	55	50	45							
	BL624002	kW	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	6.3	6.3	6.3	6.3	6.3	6.3	6.3							72
		m³/h	195	175	165	160	155	158	150	148	145	142	140	135	130	125	120	115	110	100	90							

Triple Impeller Series			Pressure (mbar)																									Noise dB (A)
			0	100	200	225	250	275	300	325	350	375	400	450	500	550	600	650	700	750	800	850	900	950	1000	1050	1100	
1 ¼"	BL634003	kW	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6			76
		m³/h	200	180	170	168	165	162	160	158	155	152	150	148	145	142	140	138	135	133	130	125	120	115	110			

Blowers HP performance selection 3ph at 60 Hz (3,500 rpm)







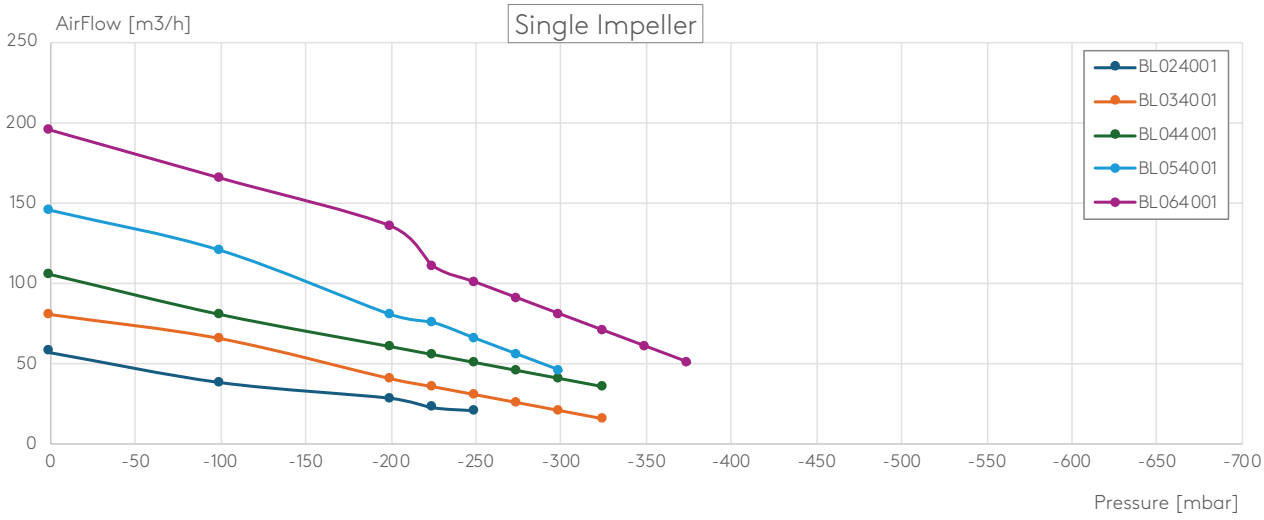
Exhausters HP performance selection 3ph at 60 Hz (3,500 rpm)

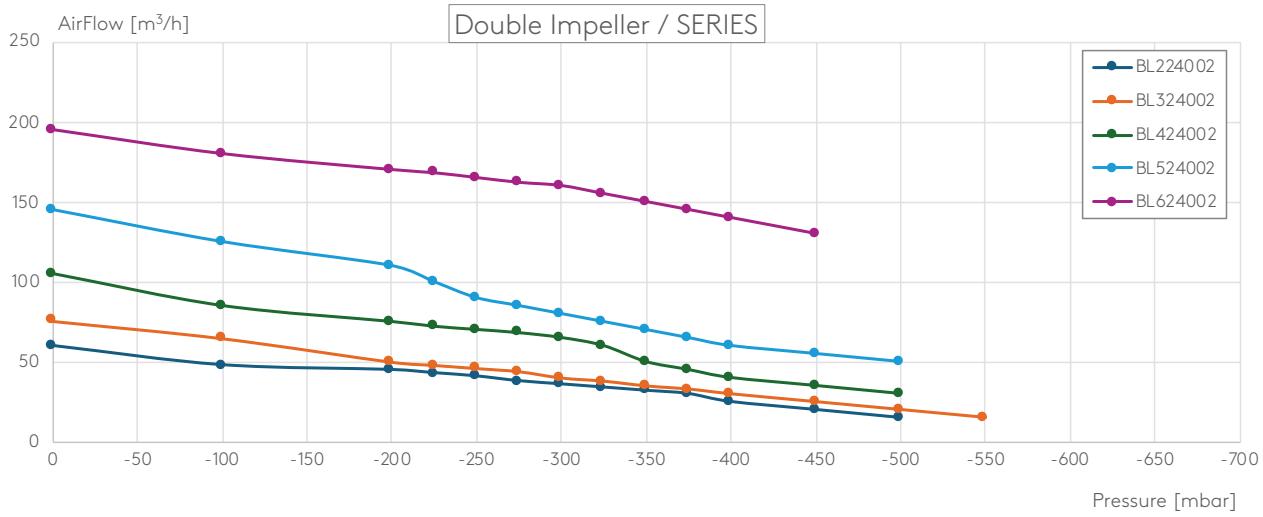
Single Impeller			Pressure (mbar)																										Noise
			0	-100	-200	-225	-250	-275	-300	-325	-350	-375	-400	-450	-500	-550	-600	-650	-700	-750	-800	-850	-900	-950	-1000	-1050	-1100	dB (A)
1 ¼"	BL024001	kW	0.63	0.63	0.63	0.63	0.63																						62
		m³/h	57	38	28	22	20																						
	BL034001	kW	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94																			62
		m³/h	80	65	40	35	30	25	20	15																			
	BL044001	kW	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3																			62
		m³/h	105	80	60	55	50	45	40	35																			
	BL054001	kW	2.05	2.05	2.05	2.05	2.05	2.05	2.05																				68
		m³/h	145	120	80	75	65	55	45																				
	BL064001	kW	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	3.8																	71
		m³/h	195	165	135	110	100	90	80	70	60	50																	

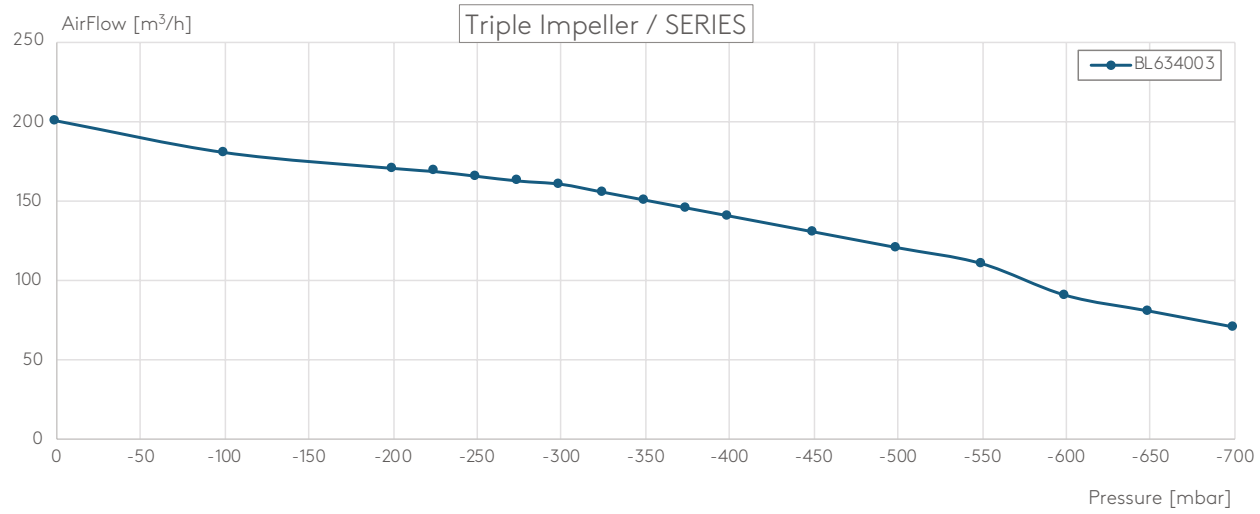
Double Impeller Series			Pressure (mbar)																										Noise
			0	-100	-200	-225	-250	-275	-300	-325	-350	-375	-400	-450	-500	-550	-600	-650	-700	-750	-800	-850	-900	-950	-1000	-1050	-1100	dB (A)
1 ¼"	BL224002	kW	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	2.05	2.05														62
		m³/h	60	48	45	43	41	38	36	34	32	30	25	20	15														
	BL324002	kW	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.05	2.05													63
		m³/h	76	65	50	48	46	44	40	38	35	33	30	25	20	15													
	BL424002	kW	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	2.05	3.8	3.8														66
		m³/h	105	85	75	72	70	68	65	60	50	45	40	35	30														
	BL524002	kW	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	2.55	4.8														70
		m³/h	145	125	110	100	90	85	80	75	70	65	60	55	50														
	BL624002	kW	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8															72
		m³/h	195	180	170	168	165	162	160	155	150	145	140	130															

Triple Impeller Series			Pressure (mbar)																										Noise
			0	-100	-200	-225	-250	-275	-300	-325	-350	-375	-400	-450	-500	-550	-600	-650	-700	-750	-800	-850	-900	-950	-1000	-1050	-1100	dB (A)
1 ¼"	BL634003	kW	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6										76
		m³/h	200	180	170	168	165	162	160	155	150	145	140	130	120	110	90	80	70										

Exhausters HP performance selection 3ph at 60 Hz (3,500 rpm)

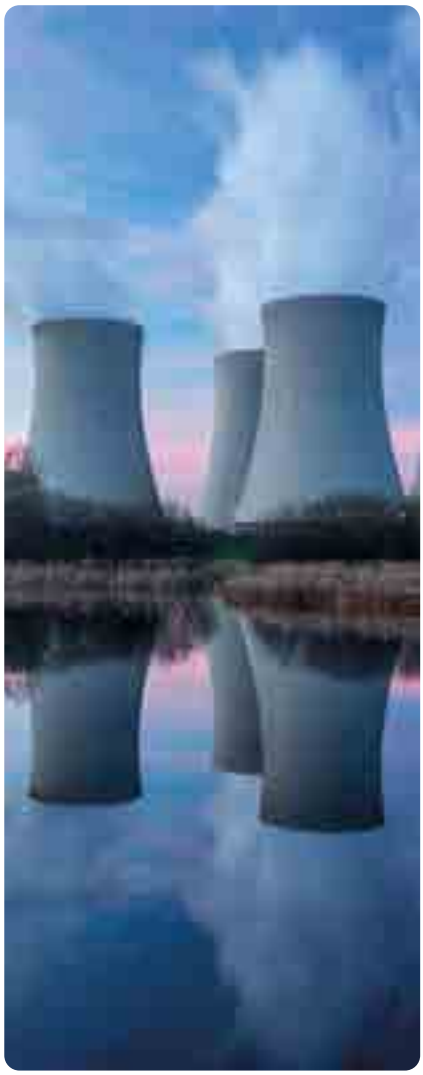






SMAG 103

Electromagnetic Flow Meter and Control unit



Product Overview

	SMAG 103 M	SMAG 103 S	SMAG 103 C
			
Dimension [mm]	DN15 - DN600	DN25 - DN80	DN6 - DN20
Nominal pressure [bar]	10 - 40	16	25

SMAG 103

Electromagnetic flow meter and control unit

SMAG 103 is a professional electromagnetic flow meter and controller that's ideal for measuring conductive fluids, wastewater and other liquids across multiple applications. Built with high-grade materials such as Hastelloy C4, carbon or stainless steel, rubber, PTFE and PFA, SMAG 103 withstands challenging conditions including liquids up to 170°C.

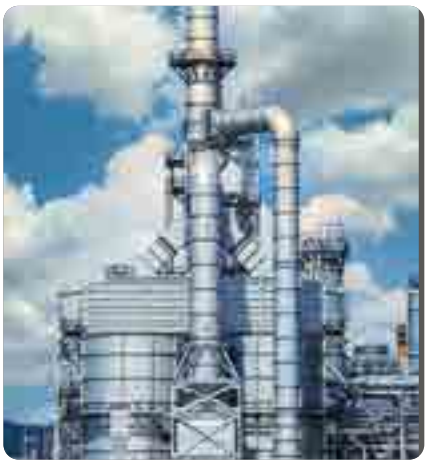
With application uses across water treatment, mining and refineries, food, energy generation, wastewater treatment and chemical production, SMAG 103 meets the needs of modern water management systems and represents one of SEKO's most versatile solutions for high-precision measurement.

The ATEX version has been designed with a robust construction, an all-stainless steel design and remote control without a display unit. This makes it an unbeatable flowmeter for any application that requires durability and longevity.

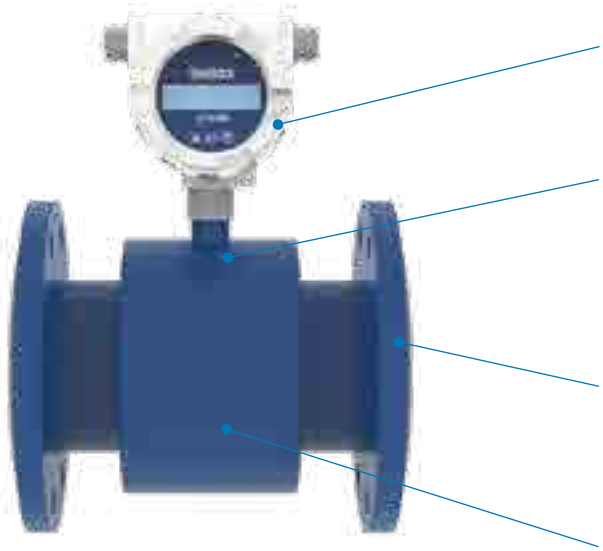
Applications

The versatile SMAG 103 is suited to multiple water-treatment applications, including:

- Water treatment
- Mining and refineries
- Energy generation
- Chemical production
- Wastewater treatment



Features & benefits



Municipal Water Treatment

- Sludge and water treatment

Industrial Processes

- Energy industry: generation and distribution
- Extraction industries: quarries and mines (ATEX Ex II 1G EX Mark)

Chemical Industry

- Control of civil and industrial wastes
- Chemical dosing control

Drinking Water

- Measurement of potable water

Specification

Power	230 VAC (50/60 Hz), 24 VAC/VDC with polarity reversal protection
Type of electronics	Head (H – standard), front (F), panel (P) versions
Design	Compact (up to Tmax 90 °C); Separated (standard cable length 3 m)
Diameter nominal	DN 10 ÷600
Lining material	Rubber, PTFE, PFA, ETFE
Electrode material	Hastelloy C4 (std), Titanium, Tantalum
Frame	All-welded
Sensor material	• Flanged using stainless steel (AISI304) and structural steel with polyurethane coating • Threaded, Sandwich, food grade using stainless steel
Process connections	• Flanged DIN (EN1092) – carbon or stainless steel • Sandwich • Threaded (EN ISO 228-1) • Food grade (DIN 11851 fitting, clamp)
Pressure	PN10, PN16, PN25, PN40
Min. conductivity of the measured fluid	20 µS/cm
Flow meter measuring range (Qmin/Qmax)	Bi-Directional for 0.2 - 12 m/s (1/60); 0.12 - 12 m/s (1/100); 0.06 - 12 m/s (1/200)
Flow meter accuracy	Accuracy up to 0.5 %, repeatability up to 0.2 %
Pressure loss	Negligible
Additional electrodes	Grounding and detection electrodes for empty piping
Empty piping detection	Yes
Display unit	LCD 2×16 characters; backlit
Controls/settings	• 2 × external button (viewing values) • 3 × internal button (viewing + parameter setting)
Outputs	• Impulse/flow switch (max. 400 Hz), 4-20 mA, Interface RS485 (protocols M-BUS/Mod-Bus) • (Impulse and current outputs are passive with a possibility of being powered from internal power supply of the meter)
Max. ambient temperature	55 °C
Protection degree	IP65, IP67, IP68 (std)

SMAG 103

Electromagnetic flow meter and controller

The SMAG 103 meter is based on measurement principle by Faraday's electromagnetic induction law according to which an electric voltage is induced during the flow of a conductive liquid through the flow meter magnetic field. This is picked up by two electrodes in direct contact with the measured medium and evaluated in the electronic unit. The SMAG 103 type of induction meters are suitable exclusively for measurement of volumetric flow of electrically conductive liquid substances with a minimum conductivity of 20 uS/cm (at a lower conductivity, upon agreement with the manufacturer). Meters are designed for flow measurement where the velocity of liquid is in the range of 0.01 - 12 m/s. The best measurement accuracy can be obtained in the range of 1 - 10 m/s.

SMAG 103 M

Size and connections	DN15 - DN600 (Flange EN 1092-1)
Nominal pressure	10 - 40 bar (64 bar on request)
Lining	PTFE and rubber
Body material	Carbon steel with electrodes in Hastelloy C4
Temperature of liquid	**Compact Design:** 70°C for rubber; 90°C for PTFE/ETFE **Remote Design:** 70°C for rubber; 140°C for PTFE/ETFE (170°C for High construction)

SMAG 103 S

Size and connections	DN25 - DN80 (Food thread DIN 11851)
Nominal pressure	16 bar
Lining	PFA
Body material	Carbon steel with electrodes in Hastelloy C4
Temperature of liquid	Compact Design: 90°C for PFA

SMAG 103 C

Size and connections	DN6 - DN20 (Thread ISO 228-1)
Nominal pressure	25 bar
Lining	PVDF
Body material	SS304 with electrodes in SS316L
Temperature of liquid	Compact Design: 70°C for PVDF

SMAG 103 key code

Type of electronics	
S3	S 103 - Head version (H-standard)
S4	S 104 - Panel version (P)
S5	S 105 - Front version (F)

Product	
M	Flow 38/Flow 45 (flanged)
S	Flow 38 (DIN11851)
D	Flow 38 MID Cert. (Logo COMAC CAL)
C	Flow 32 (EN ISO 228-1)
X	Flow 33 Ex (ATEX II 1G Ex ia IIC T6) - pending Certification

Design (A)	
Y	A1 = Compact @ 70°C
P	A2 = Separated @ tmax 140°C (cable length 3 - 30m)
F	A3 = Separated @ tmax 80°C (cable length 3 - 30m)

Diameter nominal	
0010	DN 10
0015	DN 15
0020	DN 20
0025	DN 25
0032	DN 32
0040	DN 40
0050	DN 50
0065	DN 65
0080	DN 80
0100	DN 100
0125	DN 125
0150	DN 150
0200	DN 200
0250	DN 250
0300	DN 300
0350	DN 350
0400	DN 400
0500	DN 500
0600	DN 600

Pressure	
A	C5 = PN64 DIN (64 bar)
B	C4 = PN40 DIN (40 bar)
C	C1 = PN10 DIN (10 bar)
D	C3 = PN25 DIN (25 bar)
E	C2 = PN16 DIN (16 bar)
F	C6 = PN100 DIN (100 bar)

Lining (D)	
1	D1 = Hard/Soft Rubber (ebonite)
2	D4 = PTFE
3	D5 = PFA (high-performance)

Connection (B)	
B	B1 = Flanged DIN (EN 1092)
E	B1 = Flanged DIN (ANSI 150)
F	B1 = Flanged DIN (ANSI 300)
H	B3 = Threaded (EN 10226-1)
C	B5 = Clamp (DIN 32676)
D	DIN 11851
G	UNI ISO 228/1 (Male GAS threaded)

Electrodes (E)	
1	E1 = Stainless Steel 316 Ti
2	E4 = Tantalum
3	E2 = Hastelloy C4
4	E3 = Titanium

Power Supply (H)	
A	H1 = 110 - 230 VAC (50/60 Hz)
B	H2 = 24 VAC/VDC
E	Battery pack 12/24 VAC/DC HIGH PERF.

Measuring Range -Qmin/Qmax (I)	
0	I1 = 1/60
1	I2 = 1/100
2	I3 = 1/200
V	For further use

Electrical Output	
0	G1 = Impulse/switch (standard)
A	G2 = Imp/sw + 4-20mA
B	G3 = Imp/sw + RS485
C	N.U.
D	G5 = Imp/sw + 4-20mA + HART
E	G4 = Imp/sw + 4-20mA + RS485
F	G6 = Imp/sw + 4-20mA + HART + RS485

IP grade (F)	
0	IP65
1	IP67
2	IP68 (3 m only remote version)

Cable Lenght/Others	
00	Not Present (only compact)
05	5 meters
10	10 meters
30	30 meters (maximum value)
EM	Mid Certification
XX	Others

S3	M	Y	0100	B	2	B	3	A	0	E	2	00

General Accessories

Common Accessories

The trouble-free operation of a pump depends on the correct pre-installation analysis specific to the intended application The choice of accessories and their sizing are critical for the correct performance of a reliable system.

Threaded Water Meter

Series	Size	Pulse/l
TC1	from ½" to 2"	0.1 1 4
TH1		1 4
TC0		No pulse launcher

Fast Mixers

Shaft	Material
600	SS316 PVC
800	
900	
1,100	
Propeller	**rpm**
90	1400

Slow Mixers

Shaft	Material
600	SS316 PVC
800	
900	
1,100	
Propeller	**rpm**
150	70 200
220	

Flanged Water Meter

Series	Size	Pulse/l
FC	from 2" to 6"	100 1,000

Tanks

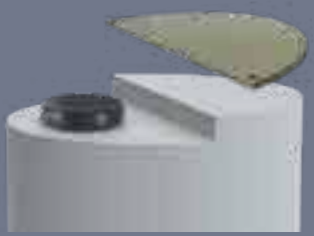
Type	Height [mm]	Diameter [Ø mm]
SER-50	465	410
SER-100	650	470
SER-250	870	610
SER-300	965	670
SER-500	1,195	760
SER-1000	1,223	1,085

Reinforcement Plate

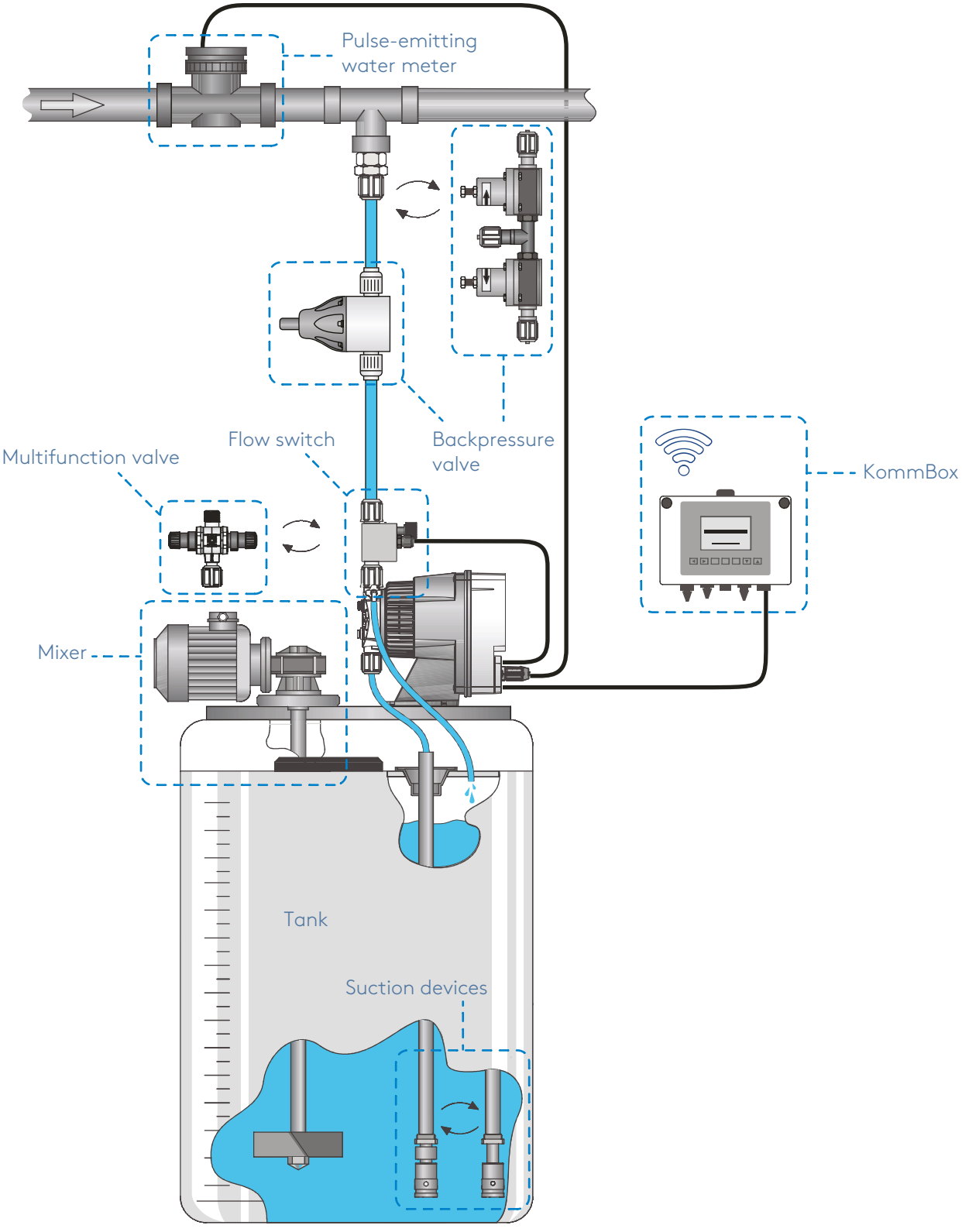
Type	for Tank
-	-
SML-100	SER-100
SML-250	SER-250
SML-300	SER-300
SML-500	SER-500
SML-1000	SER-1000

Containment Tanks

Type	Height [mm]	Diameter [Ø mm]
-	-	-
T-150	610	550
T-300	820	705
T-400	960	780
T-800	1,105	846
T-1500	1,255	1,235



Solenoid-Driven Pump Accessories



Solenoid-Driven Pump Accessories

Suction devices

Type	Length [mm]	Diameter [Ø mm]	Seals	Level sensor	for Tank
PVC suction lance	450	22 (for 4x6 tube)	FKM-B EPDM	YES NO	SER-50
	650				SER-100
	900				SER-250
	1,050	34 (for 8x12 tube)			SER-300
	1,250				SER-500/1000

Valves

Type	Pressure [bar]	Max flow rate [l/h]	Material	Seals	Tube
Backpressure	1.5 0.5 - 5	-	PVDF	FKM-B EPDM	4x6
Backpressure	1.5 0.5 - 10	-	PVC	FPM EPDM	4x6 8x12
Backpressure HYC	max 10	50	PVC	FPM EPDM	4x6 8x12
Safety HYS	max 10	50	PVC	FPM EPDM	4x6 8x12
Multiple HYM	max 10	50	PVC	FPM EPDM	4x6 8x12
Multifunction	0 - 18 (safety) 0 - 5 (backpressure)	-	PVDF (diaphragm PTFE)	FKM-B EPDM	4x6 8x12

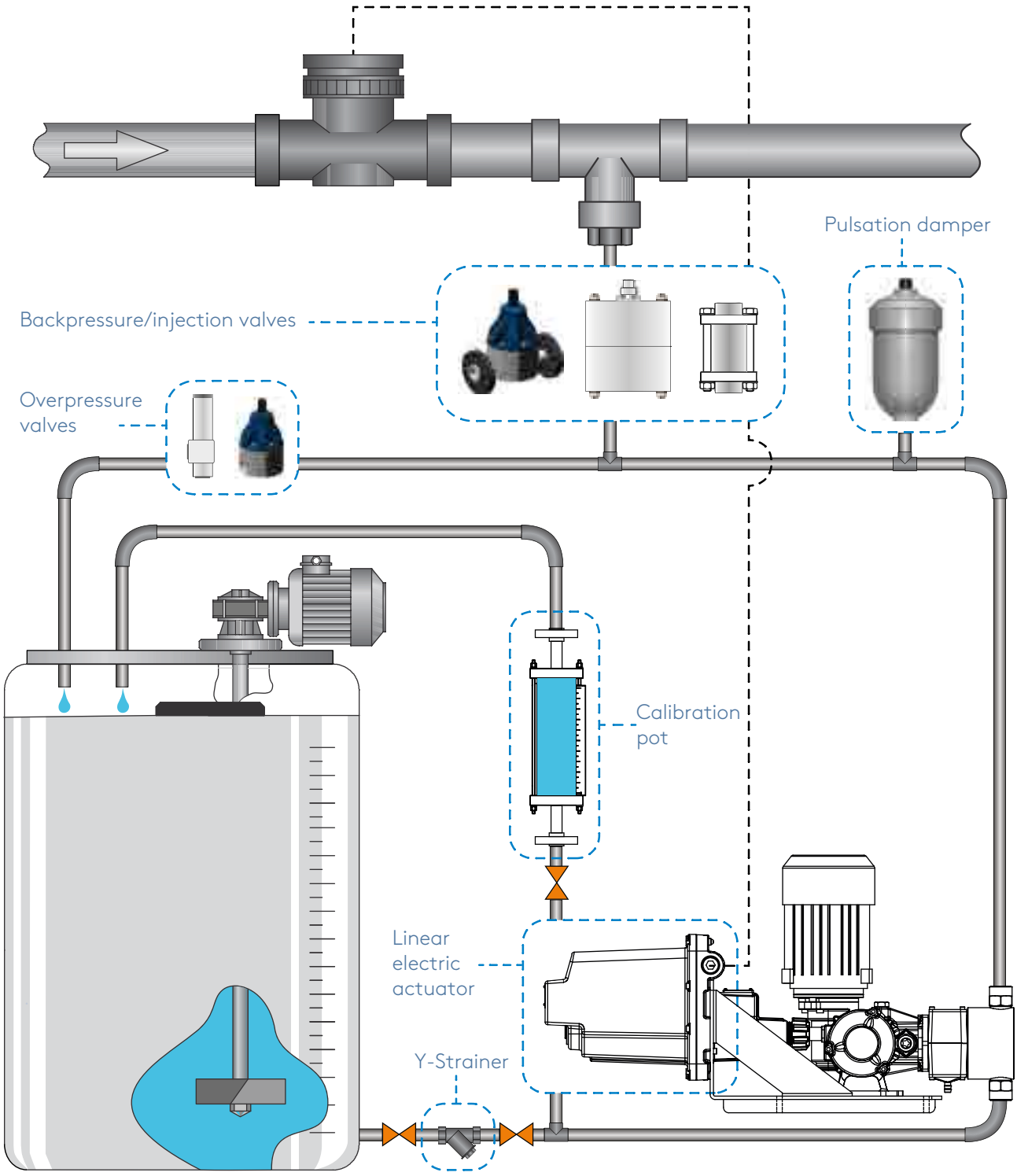
Communication device

Type	Power supply	Local channels	Manages up to	Network
KommBox	100 - 240 Vac 50/60Hz	CANBus Modbus RS485 RTU	10 units	Ethernet RJ45 Wi-Fi

Other accessories

Type	Pressure [bar]	Flow rate [l/h]	Material	Seals	Tube
Flow switch	1.5 0.5 - 5	-	PVC PVDF PMMA	FKM-B EPDM	4x6 8x12

Motor-Driven Pump Accessories



Motor-Driven Pump Accessories

Backpressure valve

Model	Max Flow Rate [l/h]	Setting Pressure [bar]	Code	Wetted parts
VSM-S (SS316L)	300	0 - 5	VSM1S03005_A	SS316L/ PTFE
	800		VSM2S08005_A	
	1,500		VSM3S15005_A	

Model	Max Flow Rate [l/h]	Setting Pressure [bar]	Code	Wetted parts
VSM-P (PVC)	300	0 - 5	VSM1P03005_A	PVC/PTFE
	800		VSM2P08005_A	
	1,500		VSM3P15005_A	

Backpressure / relief valve

Code	Material - xx SS316L FPM	SS316L EPDM	PVDF FPM	PVDF EPDM	Type - xx (Flanged / Threaded)	Max Flow Rate [l/h]	Pressure [bar]	Fittings
BV XX 103010 Y	21	24	41	44	F/T	300	0 - 10	DN10
BV XX 208010 Y					F/T	800		DN20
BV XX 408010 Y					F	800		ANSI ¾"
BV XX 315010 Y					F/T	1,500		DN25
BV XX 515010 Y					F	1,500		ANSI 1"

Injection valve

Model	Max Flow Rate [l/h]	Setting Pressure [bar]	Code	Wetted parts
VZX-S (SS316L)	80	2	VZX1S00502_A	SS316L
	100		VZX3S01002_A	
	200		VZX4S02002_A	
	420		VZX5S04202_A	
	800		VZX6S08002_A	
	1,650		VZX7S16502_A	

Overpressure valve

Model	Max Flow Rate [l/h]	Setting Pressure [bar] Min	Max	Std	Code	Wetted parts
VS1-S	250	0	19	10	VS1S250019_A	SS316L/PTFE
		20	45	20	VS1S250045_A	
		46	150	50	VS1S250150_A	

Model	Max Flow Rate [l/h]	Setting Pressure [bar] Min	Max	Std	Code	Wetted parts
VS2-S	650	0	13	10	VS2S2650013_A	SS316L/PTFE
		14	30	20	VS2S2650030_A	
		31	150	50	VS2S650100_A	

Pulsation Damper

Code	Material Body / Diaphragm	Max Pressure [bar]	Nitrogen Volume [l]	Max Precharge [bar]	Fittings
HSTX005_A	SS316L/NBR	210	0.05	150	⅜" BSP
HSTX01_A		150/210	0.12	105/150	½" BSP
HSTX035_A			0.35		
HSTX07_A			0.7		¾" BSP
HSTX08_A			0.8		
HSTX15_A			1.5		1" BSP
HSTX23_A			2.3		

Code	Material Body / Diaphragm	Max Pressure [bar]	Nitrogen Volume [l]	Max Precharge [bar]	Fittings
HSTPVC005_A	PVC/FPM	10	0.05	7	⅜" BSP
HSTPVC01_A			0.12		½" BSP
HSTPVC035_A			0.35		
HSTPVC07_A			0.7		
HSTPVC15_A			1.5		¾" BSP
HSTPVC15_A			2.3		

Calibration pot

Code SS316L	Code PVDF	Volume [l]	Suggested flow rate [l/h] to calibrate in 30" or more
CP0004B36AA1B	CP0004B96AA1B	0.04	0 - 4.6
CP0050B36CA1B	CP0050B96CA1B	0.5	4.6 - 57
CP0100B36CA0B	CP0100B96CA0B	1	57 - 114
CP0150B36CA0B	CP0150B96CA0B	1.5	114 - 171
CP0300B36EA0B	CP0300B96EA0B	3	228 - 342
CP0500B36EA0B	CP0500B96EA0B	5	342 - 570
CP1000B36FA0B	CP1000B96FA0B	10	570 - 1,140
CP2000B36FA0B	CP2000B96FA0B	20	1,710 - 2,280
CP2500B36FA0B	CP2500B96FA0B	25	2,280 - 2,850

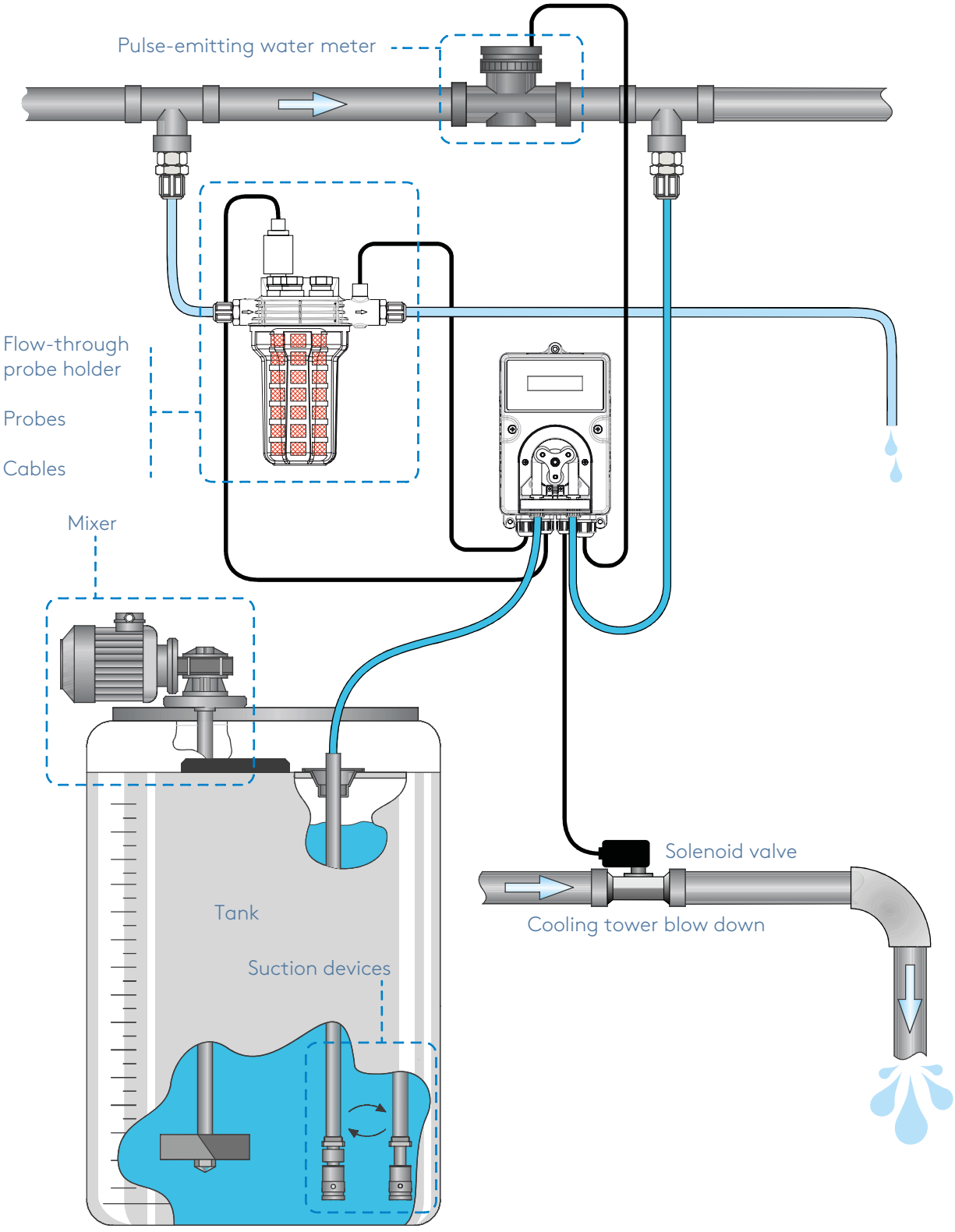
Aktua series - linear electric actuator

Code	Description	For Spring pumps series
SAL025M00000	Electric Actuator Aktua Series	All
SA99106004	Installation Interface for Aktua series	MS1A064/094
SA99106005		MS1B108
SA99106001		MS1C138/165
SA99106002		PS1
SA99106003		PS2

Y-Strainer

Code SS316L	Code PVDF	Connection
FYP3240200_A	FYS3240008_A	⅜" BSP
FYP3230040_A	FYS3240100_A	½" BSP
FYP3230060_A	FYS3240110_A	¾" BSP
FYP3230080_A	FYS3240120_A	1" BSP

Peristaltic Pump Accessories



Peristaltic Pump Accessories

Flow-through probe holder

Model	Temperature [°C]	Pressure [bar]	Body	Flow switch	Probes	Code
PSS7	40	6	Blue PP + transparent PMMA	Not included - Ø12	Not included	**9900103021**
PSS8-A		2	PP + transparent PMMA	Included - Ø12		**9900103087**
PSS8-A1			PP + black PP			**9900103088**
PSS8-A HP		5	PP + transparent PMMA			**9900103090**
PSS8-A1 HP			PP + black PP			**9900103091**

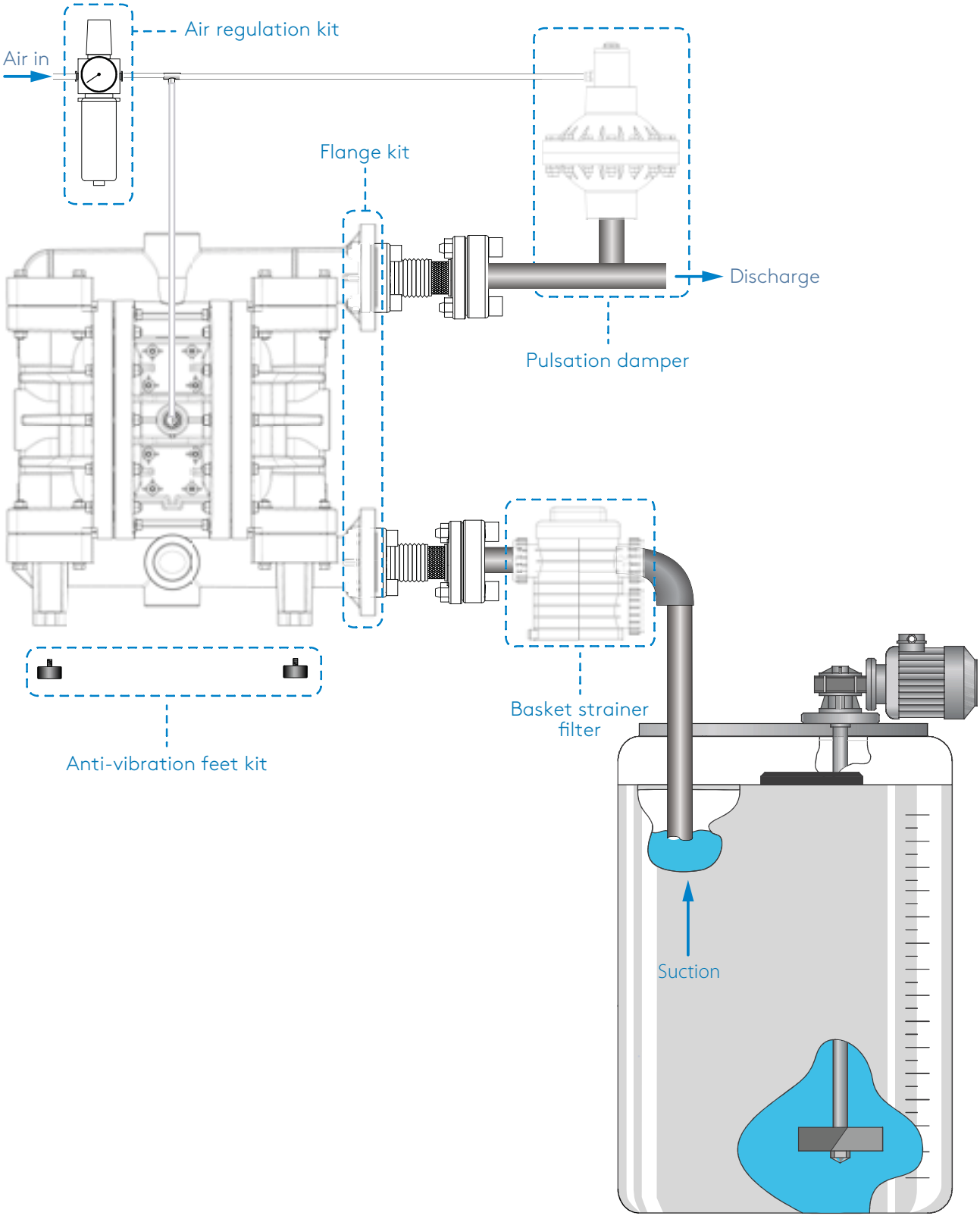
Probes

Model	Measurement range	Temp range [°C]	Pressure [bar]	Body	Membrane	Junction	Cable length [m]	Connection	Code
SPH1-WP-S1-1.5	2 - 12 pH	0 - 60	6	PC	Glass	Single	1.5	BNC	**9900105001**
SPH1-WP-S1-6	2 - 12 pH	0 - 60	6	PC	Glass	Single	6	BNC	**9900105096**
SPH1-WP-S1-DJ	2 - 12 pH	0 - 60	6	PC	Glass	Double	1.5	BNC	**9900105105**
SPH2-WP	2 - 12 pH	0 - 60	6	Epoxy	Glass	Single	-	PG 13.5 mm - S8	**9900105003**
SPH3-WW	0 - 14 pH	0 - 80	6	Glass	Glass	Double	-	PG 13.5 mm - S8	**9900105005**
SPH4-HP	0 - 14 pH	0 - 60	6	Glass	Glass	Double	-	PG 13.5 mm - S8	**9900105006**
SPH4-HT	0 - 14 pH	0 - 130	16 @ 25°C	Glass	Glass	Double	-	PG 13.5 mm - S8	**9900105007**
SPH4-LC	0 - 14 pH	10 - 40	0.5	Glass	Glass	Double	-	PG 13.5 mm - S7	**9900105008**
SPH4-CR	0 - 14 pH	0 - 60	2	Glass	Glass	Double	-	PG 13.5 mm - S8	**9900105016**
SPH4-HF	0 - 14 pH	10 - 100	16 @ 100°C	Glass	Glass	Double	1.5	PG 13.5 mm - S8	**9900105017**
SRH1-WP-SJ-1.5	±1,000 mV	0 - 60	6	PC	-	Single	1.5	BNC	**9900105031**
SRH1-WP-SJ-6	±1,000 mV	0 - 60	6	PC	-	Single	6	BNC	**9900105097**
SRH1-WP-DJ	±1,000 mV	0 - 60	6	PC	-	Double	6	BNC	**9900105104**
SRH1-WP-AU	±2,000 mV	0 - 60	6	PC	-	Single	6	BNC	**9900105103**
SRH2-WP	±1,000 mV	0 - 60	6	Epoxy	-	Single	6	BNC	**9900105083**
SRH3-WW	±1,000 mV	0 - 80	6	Glass	-	Double	-	PG 13.5 mm - S8	**9900105033**
SRH4-HT	±2,000 mV	0 - 130	16 @ 130°C	Glass	-	Double	-	PG 13.5 mm - S8	**9900105034**
PT100 3 wire 12mm	0±100°C	-	0±7	-	-	-	5 (3-wire)	12 mm	**9900105061**
PT100 3 wire PG 13.5	0±100°C	-	0±7	-	-	-	5 (3-wire)	PG 13.5 mm	**9900105062**

pH/ORP probes cable

Model	Connection	Preassembled BNC	Cable [Ø 5mm]	Cable length [m]	Code
CE-1	S7 and BNC	No	COAX RG58	1	**9900108001**
CE-5		No	COAX RG58	5	**9900108003**
CE-10		No	COAX RG58	10	**9900108004**
CE-20		No	COAX RG58	20	**9900108006**
CE-10-HT		No	Low Noise COAX	10	**9900110001**
CE-20-HT		No	Low Noise COAX	20	**9900110002**
CE-1-B		Yes	COAX RG58	1	**9900109001**
CE-5-B		Yes	COAX RG58	5	**9900109003**
CE-10-B		Yes	COAX RG58	10	**9900109004**
CE-20-B		Yes	COAX RG58	20	**9900109006**
CE-10-HT-B		Yes	Low Noise COAX	10	**9900110101**
CE-20_HT-B		Yes	Low Noise COAX	20	**9900110102**

Arkad AODD Accessories



Air regulation kit

Model	Connection	Use with pumps	Code
JAAK	6mm	from 007 to 030	JAAK03000
	¼"	060	JAAK06000
		from 090 to 120	JAAK12000
	½"	from 170 to 400	JAAK40000
	¾"	700 - 1K0	JAAK1K000

Ball valve

Model	Connection	Use with pumps	Code
JABV	6mm	from 007 to 030	JABV03000
	¼"	060	JABV06000
		from 090 to 120	JABV12000
	½"	from 170 to 400	JABV40000
	¾"	700 - 1K0	JABV1K000

Reinforced hose

Model	Size	Use with pumps	Code
JARH	½"	from 030 to 060	JARH06000
	¾"	090	JARH09000
	1"	120 - 170	JARH17000
	1 ¼"	250	JARH25000
	1 ½"	400	JARH40000
	2"	700	JARH70000
	3"	1K0	JARH1K000

Anti-vibration feet kit

Model	Thread	Use with pumps	Code
JAVK	M4	007	JAVK00700
	M5	018	JAVK01800
		030	JAVK03000
	M6	060	JAVK06000
		090 - 120	JAVK12000
		170 - 250	JAVK25000
	M10	400	JAVK40000
	M12	700	JAVK70000
		1K0	JAVK1K000

Pneumatic batch counter

Model	Note	Use with pumps	Code
JASS	See above	007	JASS00700
		018 - 030	JASS03000
		from 060 to 120	JASS12000
		170 - 250	JASS25000
		400	JASS40000
		700	JASS70000

Pneumatic valve - single way 3/2

Model	Connection	Use with pumps	Code
JAPV	⅛"	from 007 to 030	JAPV03000
	¼"	from 060 to 120	JAPV12000
	⅜"	170 - 250	JAPV25000
	½"	400 - 700	JAPV70000

Electronic batch counter

Model	Note	Use with pumps	Code
JAFC	See above	from 007 to 700	JAFC70000

Stroke counter

Model	Note	Use with pumps	Code
JASC	See above	007	JASC00700
		018 - 030	JASC03000
		from 060 to 120	JASC12000
		170 - 250	JASC25000
		400	JASC40000
		700	JASC70000

Solenoid valve - single way 3/2 - 24 VDC

Model	Connection	Use with pumps	Code
JASV	⅛"	from 007 to 030	JASV03000
	¼"	from 060 to 120	JASV12000
	⅜"	170 - 250	JASV25000
	½"	400 - 700	JASV70000

External control system

Model	Note	Use with pumps	Code
JAEC	See above	from 007 to 250	JAEC25000

Solenoid valve for accurate system 5/3 - 24VDC

Model	Connection	Use with pumps	Code
JASA	⅛"	from 007 to 030	JASA03000
	¼"	060	JASA06000
	⅜"	from 090 - 120	JASA12000
	½"	170 - 250	JASA25000

Basket strainer filter

Model	Connection	Use with pumps	Code
JABS	1"	120 - 170	JABS17000
	1 ½"	250 - 400	JABS40000
	2"	700	JABS70000
	3"	1K0	JABS1K000

Trolley

Model	Size	Use with pumps	Code
JATT		from 030 to 250	JATT25000
		400 - 700	JATT70000

Flanges kit

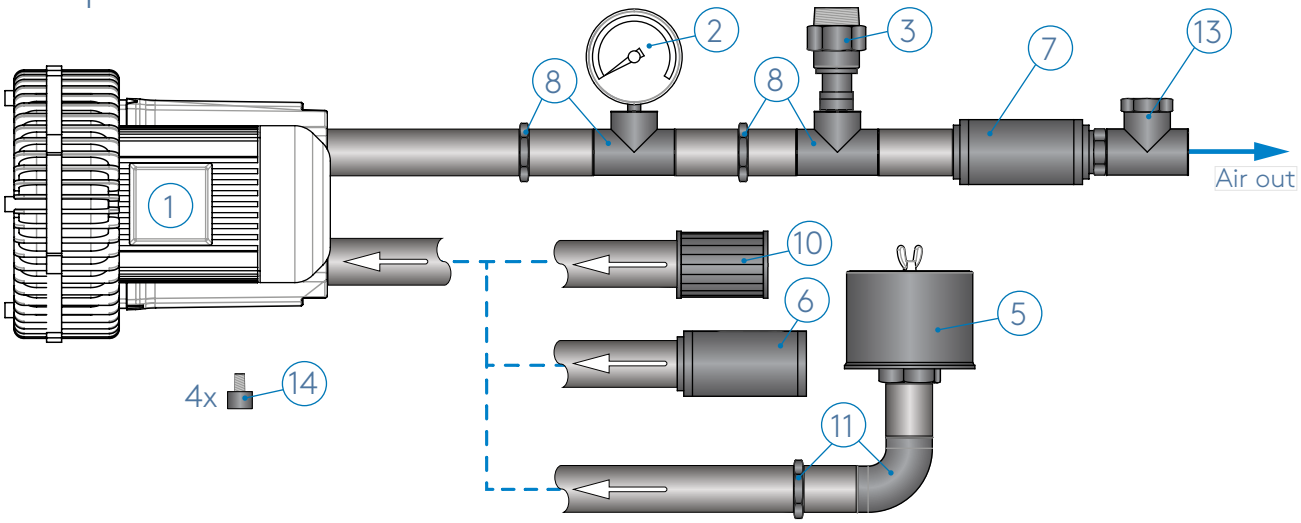
Material	Size	Use with pumps	Code
Polypropylene	½" - DN16	030 - 060	JAFK060P00
	¾" - DN20	090	JAFK090P00
	1" - DN25	120 - 170	JAFK170P00
	1 ¼" - DN32	250	JAFK250P00
	1 ½" - DN40	400	JAFK400P00
	2" - DN50	700	JAFK700P00
	3" - DN80	1K0	JAFK1K0P00
PVDF	½" - DN16	030 - 060	JAFK060P00
	¾" - DN20	090	JAFK090P00
	1" - DN25	120 - 170	JAFK170P00
	1 ¼" - DN32	250	JAFK250P00
	1 ½" - DN40	400	JAFK400P00
	2" - DN50	700	JAFK700P00
	3" - DN80	1K0	JAFK1K0P00
SS316	½" - DN16	030 - 060	JAFK060S00
	¾" - DN20	090	JAFK090S00
	1" - DN25	120 - 170	JAFK170S00
	2" - DN50	700	JAFK250S00
	3" - DN80	1K0	JAFK400S00

Arkad - Damper

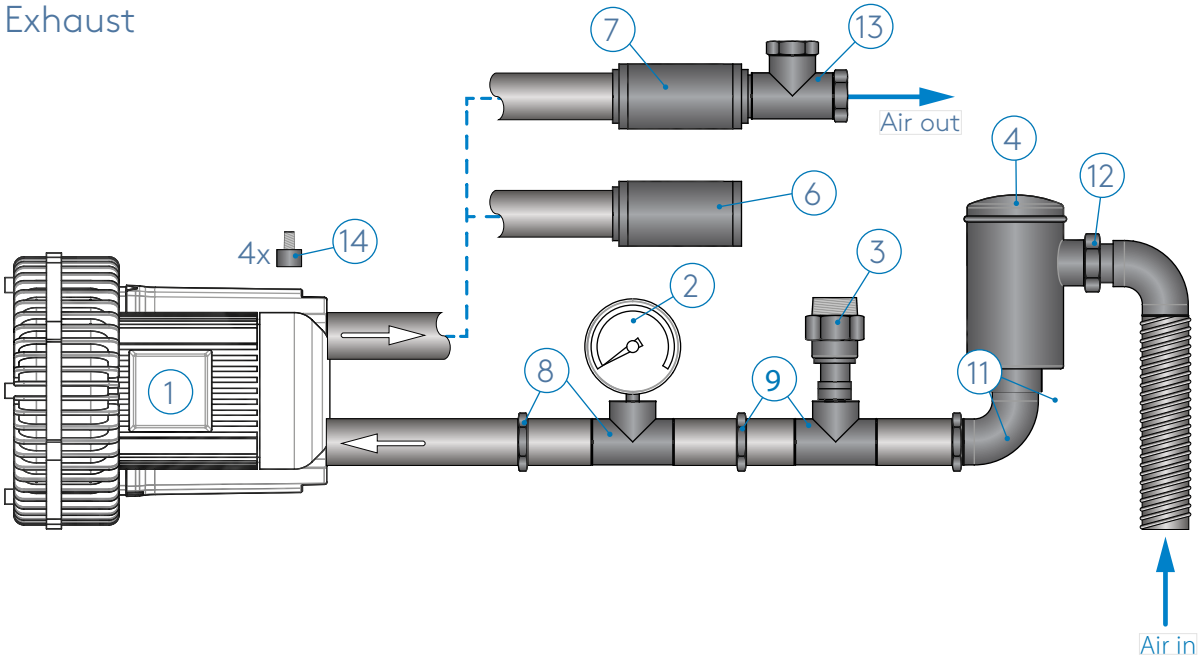
Model	Connections		Material	Diaphragm		Use with pumps	Code
	Air	Fluid	Body	Air	Fluid		
JAPD030	6mm	½"	P	H	PTFE	from 007 to 030	JAPD030PH0
			K	M			JAPD030KM0
			M	H			JAPD030MH0
			S				JAPD030SH0
JAPD120	6mm	1"	P	H	PTFE	from 060 to 120	JAPD120PH0
			K	M			JAPD120KM0
			M	H			JAPD120MH0
			S				JAPD120SH0
JAPD400	10mm	1 ½"	P	H	PTFE	from 170 to 400	JAPD400PH0
			K	M			JAPD400KM0
			M	H			JAPD400MH0
			S				JAPD400SH0
JAPD1K0	10mm	2"	P	H	PTFE	700 - 1K0	JAPD1K0PH0
			K	M			JAPD1K0KM0
			M	H			JAPD1K0MH0
			S				JAPD1K0SH0

Side Channel Blower Accessories

Compression



Exhaust



Parts Key

1 Side channel blower/exhauster
2 Vacuum/pressure gauge
3 Safety valve
4 In-line filter
5 Cartridge filter
6 Silencer
7 In-line silencer
8 Vacuum/pressure gauge kit
9 Safety valve installation kit
10 Metal network filter
11 Kit for cartridge filter
12 Kit sleeve + hose (1 m)
13 Check valve
14 Anti-vibration feet

Side Channel Blower Accessories

Safety valve

Model	Size	Setting Pressure [bar]	Material	Code
BLSV	¼" M	0 - 300	Aluminium	BLSV032AL03
		300 - 600		BLSV032AL36
	2" F	100 - 300		BLSV050AL13
		300 - 600		BLSV050AL36
	4" F	100 - 200		BLSV100AL12
		200 - 400		BLSV100AL24
		400 - 600		BLSV100AL36

Safety valve installation kit

Model	Blower Size	Model	Material	Code
BLKS	1 ¼"	1 ¼"M	Carbon Steel	BLKS032032C
	1 ½"			BLKS032040C
	2"			BLKS032050C
		2" F		BLKS05F050C
	2 ½"			BLKS05F065C
	3"	3" F		BLKS08F080C
	4"	4" F		BLKS10F100C
	5"			BLKS10F125C

In-line filter

Blower size	Size	Code	Material	Code
1 ¼"	Paper 5-7µm	BLIL032PA007	Polyester 25µm	BLIL032PO025
1 ½"		BLIL040PA007		BLIL040PO025
2"		BLIL050PA007		BLIL050PO025
2 ½"		BLIL065PA007		BLIL065PO025
3"		BLIL080PA007		BLIL080PO025
4" short		BLIL10SPA007		BLIL10SPO025
4"		BLIL100PA007		BLIL100PO025

Blower size	Size	Code	Material	Code
1 ¼"	Stainless Steel 30µm	BLIL032SS030	Stainless Steel 60µm	BLIL032SS060
1 ½"		BLIL040SS030		BLIL040SS060
2"		BLIL050SS030		BLIL050SS060
2 ½"		BLIL065SS030		BLIL065SS060
3"		BLIL080SS030		BLIL080SS060
4" short		BLIL10SSS030		BLIL10SSS060
4"		BLIL100SS030		BLIL100SS060

Cartridge filter

Blower size	Material	Code
1 ¼"	Paper 5-7µm	BLCF032PA007
1 ½"		BLCF040PA007
2"		BLCF050PA007
2 ½"		BLCF065PA007
3"		BLCF080PA007
4"		BLCF100PA007

Cartridge filter installation kit

Model	Code	Model	Code
Nipple 90 mm	BLKC032PN	Socket 150 mm	BLKC032PS
	BLKC040PN		BLKC040PS
	BLKC050PN		BLKC050PS
	BLKC065PN		BLKC065PS
	-		-
	BLKC100PN		BLKC100PS

Silencer

Blower size	Model	Code	Model	Code
1 ¼"	Final Silencer (internal mesh)	BLFS032ZPR	In-Line Silencer	BLIS032
1 ½"		BLFS040ZPR		BLIS040
2"		BLFS050ZPR		BLIS050
2 ½"		BLFS065ZPR		BLIS065
3"		BLFS080ZPR		BLIS080
4"		BLFS100ZPR		BLIS100

Diffuser

Type	Size	Model	Material	Code
DISC diffuser	9"	DISC 9	EPDM	BLDD09EN
			Silicon	BLDD09SN
	12.5"	DISC 12	EPDM	BLDD12EN
			Silicon	BLDD12SN
Easy fitting	¾" BSP	Easy fitting	EPDM	BLAR
TUBOLAR diffuser	300/350	TUBOLAR 300	EPDM	BLTD03EN
			Silicon	BLTD03SN
	500/550	TUBOLAR 500	EPDM	BLTD05EN
			Silicon	BLTD05SN
	800/850	TUBOLAR 800	EPDM	BLTD08EN
			Silicon	BLTD08SN
	1000/1050	TUBOLAR 1000	EPDM	BLTD10EN
			Silicon	BLTD10SN
NAPOW diff.	9"	NAPOW 9	EPDM	BLND09EN

Blower size	Check valve Code	Kit sleeve + hose (1 m) Code
1 ¼"	BLCV032BR	BLSH032
1 ½"	BLCV040BR	BLSH040
2"	BLCV050BR	BLSH050
2 ½"	BLCV065BR	BLSH065
4"	BLCV100BR	BLSH100

Anti-vibration feet

Size	Code
6 mm	BLAV06
8 mm	BLAV08
10 mm	BLAV10
12 mm	BLAV12

Indoor filter

Blower size	Material	Code
1 ¼"	Zinc Plated 100 µm	BLIF032ZP100
1 ½"		BLIF040ZP100
2"		BLIF050ZP100
2 ½"		BLIF065ZP100

Filter for valves

Size	Code
2" F	BLFV05F
3" F	BLFV08F
4" F	BLFV10F

Manifold for accessories

Size	Model	Code
2"	2" M - 2" F	BLAL05005F
2 ½"	2 ½"M - 2" F	BLAL06505F
4"	4" M - 4" F	BLAL10010F

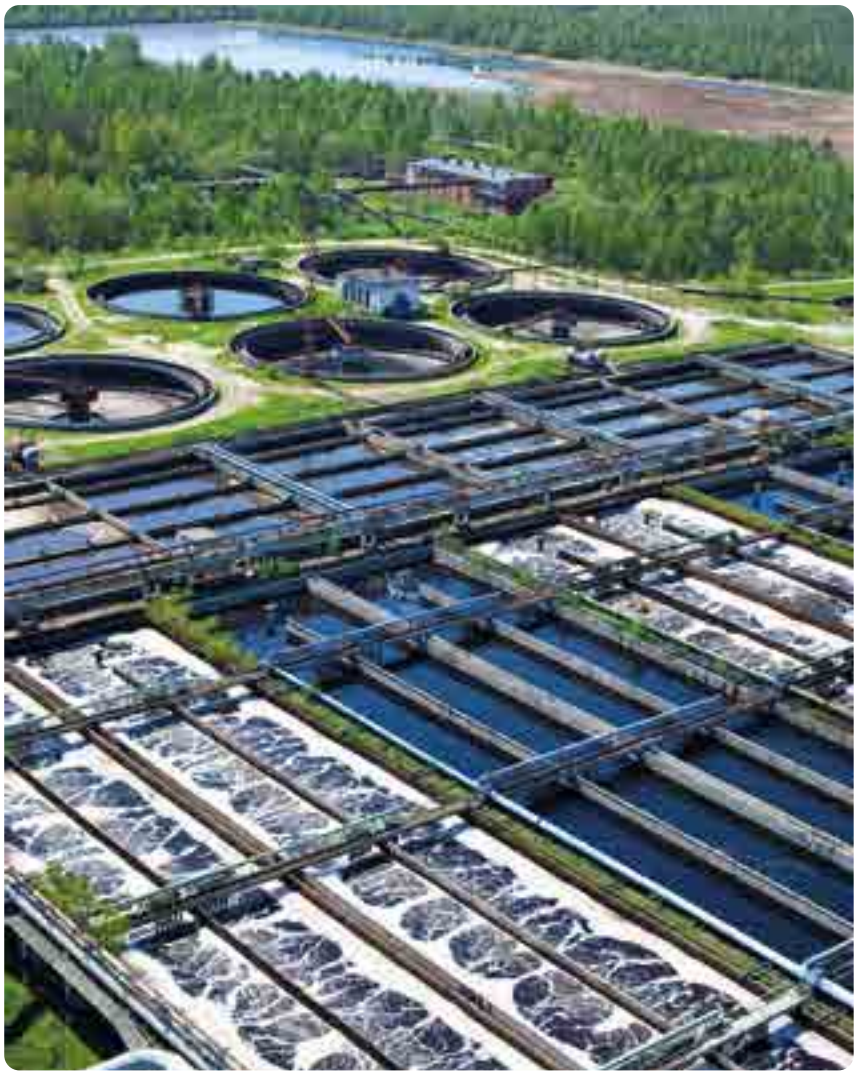
Pressure/vacuum gauge

Size	Model	Code
Ø 63 mm	Pressure	BLMN06306
	Vacuum	BLVG06306

Reverse flow valve

Model	Code
5w - 2p	BLRV52
5w - 3p	BLRV53

Controllers



Product Overview

		Kontrol 40	Kontrol 65	Kontrol 100	Kontrol 102	Kontrol 800	Kontrol 800 Tech
							
Parameter	Single	•	•	•			
	Double				•		
	Multi-parameter					•	•
Number of parameter connections	1	•	•	•			
	2				•		
	6					•	
	7						•
Mounting	DIN Rail	•					
	Panel	•	•	•	•		
	Wall	•	•	•	•	•	•
Connection	RS485			•	•	•	•
	Wi-Fi			•	•	•	•

Features & benefits

- The Kontrol range represents the most advanced solution proposed by SEKO for complete monitoring of industrial water-treatment processes. This is the result of SEKO's dedication to technological innovation and passion in developing measurement systems and solutions that meet the increasingly complex technical needs of the sector. The Kontrol Series also provides high levels of measurement accuracy and control, along with easy-to-use functionality and interfaces.
- The range allows the user to monitor the key parameters that cover every possible application: pH, ORP, conductivity, chlorine, oxygen, turbidity, suspended solids, peracetic acid, ozone, bromine, peroxide, flow rate and temperature. The range also offers the possibility to compensate the measurements in temperature, thus offering a further guarantee on the accuracy of repeatability of the measurements.

Parameter measurements

pH ORP EC DO FW CL PAA H_2O_2 Br O_3 TB SS °C°F

Monitoring exceeded value, displaying a parameter value or building a closed-loop control loop is extremely simple with our measurement sensors for a wide range of process applications. The measured values are provided in real time and can be flexibly taken from various points of the process under control, through bypass or immersion-type probe holders.

Our product line offers a wide range of sensors for different measurement purposes. Thanks to the scalability of these solutions, it is possible to cover all possible applications, from the simplest water treatment activities to the most complex industrial processes, which have more stringent requirements in terms of temperature, pressure, tolerance to contamination and chemical resistance.

Controllers range

Controller Model	K40D	K40Q	K40P	K40W	K65P	K65W
						
Dimensions (mm)	-	48 x 96	96 x 96	144 x 144	96 x 96	144 x 144
Mounting	DIN RAIL 6M53	Panel	Panel	Wall	Panel	Wall
Protection degree	IP40	IP40	IP65 Front Panel; IP20 Back	IP65	IP65 Front Panel; IP20 Back	IP65
Parameter	Single	Single	Single	Single	Single	Single
Measures	pH / Redox EC-Cond	pH / Redox EC-Cond	pH / Redox EC-Cond	pH / Redox EC-Cond	pH / Redox Conductivity Flow rate In 4 - 20 mA CL-Amp.	pH / Redox Conductivity Flow rate In4-20mA CL-Amp.
Number	1	1	1	1	1	1
Insulation	Advanced **	Advanced **	Advanced **	Advanced **	Advanced **	Advanced **
Accuracy (@pH)	± 0.1 pH	± 0.1 pH	± 0.1 pH	± 0.1 pH	± 0.1 pH	± 0.1 pH
Display/backlit display	LCD 16 x 2	LCD 16 x 2	LCD 16 x 2	LCD 16 x 2	Graphic 128 x 128 Pixel / White	Graphic 128 x 128 Pixel / White
Keyboard	Membrane (4 keys)	Membrane (4 keys)	Membrane (4 keys)	Membrane (4 keys)	Membrane (5 keys)	Membrane (5 keys)
Output relays	2	2	2	2	2	2
Output 4 - 20 mA	1	1	1	1	1	1
Output frequency					1 (400 p/m)	1 (400 p/m)
Digital input (Reed)	1	1	1	1	1	1
Vdc input (Hold)						
Power supply for sensor					18 Vdc @ 30mA	18 Vdc @ 30mA
Temperature probe input	Y	Y	Y	Y	Y	Y
RS485 serial port						
Hotspot/station Wi-Fi						
Data storage						
Datalogger function & graphs via SekoWeb						
PID function						
Probe washing					Y	Y
QR code						
Control panel	Y	Y	Y	Y	Y	Y
View mode					Y	Y
Internal clock						
Power supply Requirement	24 Vac, 115 Vac and 230 Vac	24 Vac, 115 Vac and 230 Vac	24 Vac, 115 Vac and 230 Vac	24 Vac, 115 Vac and 230 Vac	24 Vac, 115 Vac and 230 Vac	24 Vac, 115 Vac and 230 Vac
Certification	CE	CE	CE	CE	CE	CE
Manual download					Web link	Web link

(*) Basic Insulation: Insulation compliant with Class II requirements; suitable for most standard applications.

K100P	K100W	K102P	K102W	K800W	K800W Tech
					
96 x 96	144 x 144	96 x 96	220 x 144	280 x 290	280 x 290
Panel	Wall	Panel	Wall	Wall	Wall
IP65 Front Panel; IP20 Back	IP65	IP65 Front Panel; IP20 Back	IP65	IP65	IP65
Single	Single	Double	Double	Multi-parameter	Multi-parameter
pH/Redox Conductivity Flow rate In4-20mA	pH/Redox Conductivity Flow rate In4-20mA	pH/ORP-pH/ORP pH/ORP-In4-20mA pH/ORP-EC-Cond pH/ORP-CL-Amp In4-20mA-EC-Cond	pH/ORP-pH/ORP pH/ORP-In4-20mA pH/ORP-EC-Cond pH/ORP-CL-Amp In4-20mA-EC-Cond In4-20mA - In4-20mA	CL-A pH + Redox pH + CL-A pH + Redox + CL-A CL-Pot pH + CL-Pot	CL-A pH + Redox pH + CL-A pH + Redox + CL-A CL-Pot pH + CL-Pot
1	1	2	2	6	7
Advanced **	Advanced **	Advanced **	Advanced **	Advanced **	Advanced **
± 0.01 pH	± 0.01 pH	± 0.01 pH	± 0.01 pH	± 0.01 pH	± 0.01 pH
Graphic 128 x 128 Pixel White, green, orange and red	Graphic 128 x 128 Pixel White, green, orange and red	Graphic 128 x 128 Pixel White, green, orange and red	Graphic 240 x 128 Pixel White, green, orange and red	LCD 4 x 20	Graphic 240 x 128
Membrane (5 keys)	Membrane (5 keys)	Membrane (5 keys)	Membrane (5 keys)	Membrane (7 keys)	Membrane (7 keys)
2	2	4	4	6 (4 power+2 dry)	6 (4 power+2 dry)
2	2	2	2	2	4
2 (400 p/m)	2 (400 p/m)	2 (400 p/m)	2 (400 p/m)	2 (120 p/m)	4 (120 p/m)
1	1	1	1	1	1
12 - 32 Vdc	12 - 32 Vdc			15 - 30 Vdc	15 - 30 Vdc
18 Vdc @ 30mA	18 Vdc @ 30mA	24 Vdc @ 500mA	24 Vdc @ 500mA	24 Vdc @ 30mA	24 Vdc @ 30mA
Y	Y	Y	Y	Y	Y
Y	Y	Y	Y	Y	Y
Y	Y	Y	Y	Y	Y
					Y
Y	Y	Y	Y	Y	Y
Y	Y	Y	Y		
Y	Y	Y	Y		
Y	Y	Y	Y		Y
Y	Y	Y	Y	Y	Y
Y	Y	Y	Y	Y	Y
				Y	Y
100-240 Vac 24 Vac 12-32 Vdc - Class2	100-240 Vac 24 Vac 12-32 Vdc - Class2	100-240 Vac	100-240 Vac	100-240 Vac Class1	100-240 Vac Class1
CE	CE	CE	CE	CE	CE
QR code	QR code	QR code	QR code		QR code

(**) Advanced Insulation: Insulation above the requirements of Class II; this allows the device to reject the electrical noise present in heavy-industrial applications.

Kontrol 40

A simple, single-parameter control instrument characterised by isolated measurement and suitable for most water-treatment applications

Multiple enclosure

The Kontrol 40 range is designed to ensure maximum safety, user-friendliness and ease of installation for the end user; it is made so that the maintenance of the electronic circuits is as simple as possible without having to reconfigure all the electrical connections. The instruments are available in four different formats:

- For mounting on DIN BAR - IP40
- 48 x 96 mm format for panel mounting - IP40
- 96 x 96 mm format for panel mounting - Front IP65 / Rear IP20
- 144 x 144 mm format in airtight box for wall mounting - IP65

Analogue & relay outputs

All models have two normally-open relays that can be managed and activated when two independent thresholds are exceeded, as well as a programmable 4 - 20 mA analogue output.

Intuitive menu

A self-explanatory and easy-to-read menu guides the operator step by step in configuring the device, making programming quick and simple.

Statistical data

A statistical menu displays the number of activations performed by the two relays, as well as the number of alarm conditions encountered and the number of pause signals received (input reed signal).

Multi-method relay activation

The relays can be activated in three different ways: when a threshold value is exceeded, by time, in PWM mode (in ON / OFF mode with increasing OFF times as the threshold is approached).

Guided calibration

A guided calibration routine helps the user in the maintenance of the probe and in setting the operating parameters.

Control panel

The advanced menu allows the user to carry out self-diagnostics and display the status of relays, 4 - 20 mA output, calibration parameters and firmware version.

Available measures

pH ORP EC °C°F

Measure	Range	Nominal accuracy
pH	0 – 14 pH	± 0.1 pH
ORP	± 1,500 mV	± 5 mV
Electrical conductivity	0 – 200 ms (*)	± 5 %
Temperature	0 – 100°C	± 1°C

*Electrical conductivity range is dependant on the cell constant determination

Technical features

Features	Description	
Single measure	From the above list	Single channel
Calibration	Single or double point	Wizard calibration routine
Temperature measure	Compensation measure or activation outputs	PT100 sensor
Reed input	Hold function	Dry contact
Two-relay device	Normally-open status	10A 250V (dry contact)
One 4 - 20 mA channel	Output current analogue signal	500 ohm max load
Display	Alphanumeric with backlight	2x16 LCD
Power supply	24 Vac; 115 Vac; 230 Vac	CE Class II (no earth connection required)
Enclosure box	DIN bar (6 modules) 48 x 96 mm 96 x 96 mm 144 x 144 mm	DIN rail mounting: IP40 Panel mounting: IP40 Panel mounting: IP65 (front) Wall mounting: IP65

Kontrol 65

Single-parameter instrument characterised by isolated measurement and usable for most water-treatment applications

One large display and two formats

The instruments of the Kontrol 65 family are equipped with a large 128 x 128-pixel backlit graphic display, which makes viewing the measurement immediate and effective. The instruments are available in two formats:

- 96 x 96 mm for panel mounting, with front IP65 and rear IP20 protection
- 144 x 144 mm for wall mounting, with IP65 protection

Digital & analogue outputs

The Kontrol 65 instruments have two normally open relays, which can be associated with measurement, probe washing, temperature or alarm repetition; they also have a 4 - 20 mA output and a frequency output, easily programmable by the end user.

Probe washing

It is possible to programme one of the two relays to activate a probe washing cycle. The washing method is based on three phases: activation; waiting time for measurement stabilisation after washing; waiting before a new subsequent wash.

TDS function

The conductivity measurement can be also visualised in ppm (parts per million) for cooling tower treatment applications and ohms (resistivity) for reverse osmosis applications; this is due to the total dissolved solids function.

Multi-method relay activation

Relays can be programmed in three different modes: a) activation when a threshold value is exceeded; b) timed activation; c) in PWM mode (in ON / OFF mode with increasing OFF times as the threshold is approached).

Temperature measure function

One of the two relays, the frequency output or the 4 - 20 mA analogue output can be associated with temperature measurement.

Wizard calibration

A wizard calibration routine helps in the correct use of probe maintenance operations and in the setting of operating parameters.

Alarms

A list of alarm messages can be displayed on the instrument's large screen. The main alarms are activated when: temperature is out of range, probes are non-functioning, OFA overdose (setpoint not reached within the expected time) and errors due to insufficient flow.

Available measures

pH ORP EC DO FW AP CL PAA H_2O_2 Br O_3 °C°F

Measure	Range	Nominal accuracy
pH	0 – 14 pH	± 0.01 pH
ORP	± 2,000 mV	± 5 mV
Electrical conductivity	0.054 – 200,000 µS	± 5 %
Dissolved oxygen	0 – 20 ppm	± 2 %
Flow rate	0 – 99,999 l/s	± 0.5 Hz
Amperometric chlorine	0 – 5 ppm	± 0.1 ppm
Potentiostatic chlorine	0 – 200 ppm	± 0.01 ppm
Peracetic acid	0 – 99,000 ppm	± 0.01 ppm
Hydrogen peroxide	0 – 99,000 ppm	± 0.01 ppm
Bromine	0 – 99,000 ppm	± 0.01 ppm
Ozone	0 – 99,000 ppm	± 0.01 ppm
Temperature	0 – 100°C	± 1°C

Technical features

Features	Description	
Single measure	From the above list	Single channel
Calibration	Single or double point	Wizard calibration routine
Temperature measure	Compensation measure or activation outputs	PT100 sensor or PT1000
Reed input	Hold function	Dry contact
Two-relay device	Normally open status	5A - 250V (dry contact)
One solid state relay	Output frequency signal	1 - 400 pulses/minute
One 4 - 20 mA channel	Output current analogue signal	500 ohm max load
Display	Backlit graphic display	128 x 128 pixel
Power supply	24 Vac; 115 Vac; 230 Vac	CE Class II (no earth connection required)
Enclosure box	96 x 96 mm 144 x 144 mm	Panel mounting - IP65 (front) Wall mounting - IP65

Kontrol 100

Single-parameter instrument for high-precision applications and greater measurement accuracy

Maximum precision

The Kontrol 100 family is ideal for professional water-treatment applications that require accurate measurement of critical parameters. The devices feature a reinforced galvanic isolation and guarantee high-precision measurement.

PID algorithm

The Kontrol 100 series allows the user to programme outputs relating to the parameter detected according to a PID algorithm, widely used in industrial applications for process control.

One large display and two formats

The instruments of the Kontrol 100 family have a large 128 x 128-pixel high-contrast backlit graphic display that changes colour depending on the working condition of the device, to signal alarm situations or other operating conditions. The instruments are available in two formats:

- 96 x 96 mm for panel mounting, with front IP65 and rear IP20 protection
- 144 x 144 mm for wall mounting, with IP65 protection

RS485 Modbus RTU / ASCII serial port

The RS485 serial port, on which a standard Modbus RTU / ASCII communication protocol is installed, allows the device to be connected to the local network of an existing system. The same port can also be used to connect the device to a local SEKO hub to then be managed over the internet via the SekoWeb portal.

Digital & analogue outputs

Kontrol 100 units have two normally-open status relays, which can be associated with measurement, probe washing, temperature or alarm repetition; they also have two 4 - 20 mA outputs and two frequency outputs, easily programmable by the end user.

Probe washing

It is possible to programme one of the two relays to activate a probe washing cycle. The washing method is based on three phases: activation; waiting time for measurement stabilisation after washing; waiting before a new subsequent wash.

TDS function

The conductivity measurement can be also visualised in ppm (parts per million) for cooling tower treatment applications and ohms (resistivity) for reverse osmosis applications; this is due to the total dissolved solids function.

Temperature measure function

One of the two relays, one of the frequency outputs or one of the 4 - 20 mA analogue outputs can be associated with the temperature measure.

QR codes

These tools have a QR code that returns the current configuration of the device on a smartphone, including advanced settings and calibration values. This function is used for helping plant technicians identify incorrect settings or understand how to improve device performance.

Available measures

pH ORP EC DO FW CL PAA H_2O_2 Br O_3 TB °C°F

Measure	Range	Nominal accuracy
pH	0 – 14 pH	± 0.01 pH
ORP	± 2,000 mV	± 1 mV
Electrical conductivity	0.054 – 200,000 µS	± 2 %
Dissolved oxygen	0 – 20 ppm	± 2 %
Flow rate	0 – 99,999 l/s	± 0.5 Hz
Chlorine	0 – 200 ppm	± 0.01 ppm
Peracetic acid	0 – 99,000 ppm	± 0.01 ppm
Hydrogen peroxide	0 – 99,000 ppm	± 0.01 ppm
Bromine	0 – 99,000 ppm	± 0.01 ppm
Ozone	0 – 99,000 ppm	± 0.01 ppm
Turbidity	0 – 4,000 NTU	± 2 %
Temperature	-50 – 100°C	± 0.2°C

Technical features

Features	Description	
Single measure	From the above list	Single channel, high precision
Calibration	Single or double point	Wizard calibration routine
Temperature measure	Compensation measure or activation outputs	PT100 sensor or PT1000
Voltage input	Hold function	24 Vac
Reed input	Hold function	Dry contact
Serial port	RS485 protocol	Modbus RTU/ASCII
Two-relay device	Normally-open status	5A - 250V (dry contact)
Two solid state relays	Output frequency signal	1 - 400 pulses/minute
Two 4 - 20 mA channel	Output current analogue signal	500 ohm max load
Display	Graphic display with coloured backlight	128 x 128 high-contrast pixels
Power supply	12 - 32 Vdc/24 Vac or 100 - 240 Vac	CE Class II (no earth connection required)
Enclosure box	96 x 96 mm 144 x 144 mm	Panel mounting - IP65 (front) Wall mounting - IP65

Kontrol 102

Double-parameter control instrument for ultra-high-precision applications equipped with RS485 Modbus port

One large display and two formats

The control instruments of the Kontrol 102 family have large high-contrast backlit graphic displays that change colour depending on the working condition of the device. In the version for wall mounting, a new 240 x 128-pixel display is used which allows an effective simultaneous display of the two measurements under examination through the use of large characters. The two formats available are:

- 96 x 96 mm for panel mounting, with front IP65 and rear IP20 protection
- 220 x 144 mm for wall mounting, with IP65 protection

Digital & analogue outputs

Kontrol 102 instruments are equipped with four normally-open status relays, which can be associated with measure, probe washing, temperature or signal repetition; they also have two 4 - 20 mA outputs and two frequency outputs, easily programmable by the end user.

PID algorithm

The Kontrol 102 series allows the user to programme the outputs according to the parameters detected according to a PID algorithm, widely used in industrial applications for process control.

RS485 Modbus RTU/ ASCII serial port

The RS485 serial port, on which a standard Modbus RTU/ASCII communication protocol is installed, allows the device to be connected to the local network of an existing system. The same port can also be used to connect the device to a local SEKO hub to then be managed over the internet via the SekoWeb portal.

Double measurement

Kontrol 102 allows the simultaneous measurement of two parameters and this makes the instrument ideal for professional water-treatment applications that require reliability, precision and accuracy.

TDS function

The conductivity measurement can be also visualised in ppm (parts per million) for cooling tower treatment applications and ohms (resistivity) for reverse osmosis applications; this is due to the total dissolved solids function.

Probe washing

It is possible to programme one of the two relays to activate a probe washing cycle. The washing method is based on three phases: activation; waiting time for measurement stabilisation after washing; waiting before a new subsequent wash.

Temperature measure function

The output relays, the frequency outputs and the 4 - 20 mA analogue outputs can be associated with the temperature measure.

Available measures

pH ORP EC DO CL PAA H_2O_2 Br O_3 TB SS °C°F

Measure	Range	Nominal accuracy
pH	0 – 14 pH	± 0.01 pH
ORP	± 2,000 mV	± 1 mV
Electrical conductivity	0.054 – 200,000 µS	± 1 %
Dissolved oxygen	0 – 20 ppm	± 1 %
Flow rate	0 – 99,999 l/s, l/m, l/h, m3/h, GPM	± 0.5 Hz
Chlorine	0 – 200 ppm	± 0.01 ppm
Peracetic acid	0 – 99,000 ppm	± 0.01 ppm
Hydrogen peroxide	0 – 99,000 ppm	± 0.01 ppm
Bromine	0 – 99,000 ppm	± 0.01 ppm
Ozone	0 – 99,000 ppm	± 0.01 ppm
Turbidity	0 – 4,000 NTU	± 1 %
Suspended solids	0 – 30 g	± 1 %
Temperature	-50 – 150°C	± 0.1°C

Technical features

Features	Description	
Double measure	Combination from the above list	Double channel, high precision
Calibration	Single or double point	Wizard calibration routine
Temperature measure	Compensation measure or activation outputs	PT100 sensor or PT1000
Reed input	Hold function	Dry contact
Serial port	RS485 protocol	Modbus RTU/ASCII
Four-relay device	Normally open status	5A - 250V (dry contact)
Two solid state relays	Output frequency signal	1 - 400 pulses/minute
Two 4 - 20 mA channel	Output current analogue signal	800 ohm max load
Display	Display graphic with colour backlight	128 x 128 high-contrast pixels 240 x 128 high-contrast pixels
Power supply	100 - 240 Vac	CE Class II (no earth connection required)
Enclosure box	96 x 96 mm 220 x 144 mm	Panel mounting - IP65 (front) Wall mounting - IP65

Kontrol 800

Multi-parameter control instrument with isolated measurement for both simple and complex water-treatment applications

Format and display

Kontrol 800 is housed in a 280 x 290 mm IP65 enclosure and is equipped with a 4-line, 20-character LCD display.

Multi-parametric

Kontrol 800 is a multi-parametric control instrument capable up to six simultaneous measurements for professional water-treatment applications.

Statistical data

By activating the statistics function, the user can view the details of the acquired measurements or reset the stored statistics.

Serial port RS485 Modbus RTU/ASCII

The RS485 serial port, on which a standard Modbus RTU/ASCII communication protocol is installed, allows the device to be connected to the local network of an existing system. The same port can also be used to connect the device to a local SEKO hub to manage it via the internet through the SekoWeb portal.

Multi-method relay activation

The relays can be programmed in three different modes: a) activation when a threshold value is exceeded; b) timed activation; c) in PWM mode (in ON/OFF mode with increasing OFF times as the threshold is approached).

Control panel

The advanced menu allows the user to carry out self-diagnostics and view the status of relays, 4 - 20 mA outputs, calibration parameters and firmware version.

Digital & analogue outputs

Kontrol 800 is equipped up to four powered relays - normally-open status - which can be associated with measure, probe washing, temperature or alarm repetition. In addition, two other dry contact relays with two 4 - 20 mA outputs and two frequency outputs, easily programmable by the user.

Available measures

pH ORP EC DO FW CL PAA H_2O_2 BR O_3 °C°F

Measure	Range	Nominal accuracy
pH	0 – 14 pH	± 0.01 pH
ORP	± 2,000 mV	± 1 mV
Electrical conductivity	0.054 – 200,000 µS	± 2 %
Dissolved oxygen	0 – 20 ppm	± 2 %
Flow rate	0 – 99,999 l/s	± 0.5 Hz
Chlorine	0 – 200 ppm	± 0.01 ppm
Peracetic acid	0 – 99,000 ppm	± 0.01 ppm
Hydrogen peroxide	0 – 99,000 ppm	± 0.01 ppm
Bromine	0 – 10 ppm	± 0.01 ppm
Ozone	0 – 99,000 ppm	± 0.01 ppm
Temperature	0 – 100°C	± 0.2°C

Technical features

Features	Description	
Multiple measure	Combination from the above list	Multiple measurement channel
Calibration	Single or double point	Wizard calibration routine
Temperature measure	Compensation of measurements or activation of an output	PT100 sensor
Voltage input	Hold function	24 Vac
Reed input	Hold function	Dry contact
Serial port	RS485 protocol	Modbus RTU/ASCII
Six output relays	Normally-open status	Up to 4 are powered 10A - 250 Vac 2 are dry contact 10A - 250 Vac
Two solid state relays	Output frequency signal	1 - 120 pulses/minute
Two 4 - 20 mA channel	Output current analogue signal	500 ohm max load
Display	Alphanumeric display	4 x 20 LCD
Power supply	100 - 240 Vac	CE Class I (earth connection required)
Enclosure box	278 x 285 x 140 mm	Wall mounting with bracket - IP65

Kontrol 800 Tech

Multi-parametric control instrument with isolated measurement and graphic display suitable for complex water-treatment applications

Format and display

Kontrol 800 Tech is housed in a 280 x 290mm IP65 enclosure and is equipped with a 240 x 128-pixel backlit LCD graphic display.

Multi-parametric

Kontrol 800 Tech is a multi-parametric control instrument capable up to seven simultaneous measurements for professional water-treatment applications.

Statistical data

By activating the statistics function, the user can view details of acquired measurements or reset stored statistics, both in table and graphic format.

Serial port RS485 Modbus RTU/ASCII

The RS485 serial port, on which a standard Modbus RTU / ASCII communication protocol is attested, allows the device to be connected to the local network of an existing system. The same port can also be used to connect the device to a local SEKO hub to also be able to manage it via the internet through the SekoWeb portal.

Multi-method relay activation

Relays can be programmed in three different modes: a) activation when a threshold value is exceeded; b) timed activation; c) in PWM mode (in ON / OFF mode with increasing OFF times as the threshold is approached).

Control panel

The advanced menu allows the user to carry out self-diagnostics and view the status of relays, 4 - 20 mA outputs, calibration parameters and firmware version.

Digital & analogue outputs

Kontrol 800 Tech is equipped with four powered relays - normally-open status - which can be associated with measure, probe washing, temperature or alarm repetition. In addition, two other dry contact relays with reed and general alarm purposes, with four 4 - 20 mA outputs and four frequency outputs, easily programmable by the user

"Full Mode" version with pre-installed configurations

The Kontrol 800 Tech "Full Mode" version features pre-installed system configurations adapted for process applications such as irrigation, industrial water treatment and swimming pools. The "Full Mode" operating version, thanks to a large graphic display, provides the end user with a complete range of options for configuring each measurement.

Available measures

pH ORP EC DO FW CL PAA H_2O_2 Br O_3 TB °C°F

Measure	Range	Nominal accuracy
pH	0 – 14 pH	± 0.01 pH
ORP	± 2,000 mV	± 1 mV
Electrical conductivity	0.054 – 200,000 µS	± 2 %
Dissolved oxygen	0 – 20 ppm	± 2 %
Flow rate	0 – 99,999 l/s	± 0.5 Hz
Chlorine	0 – 200 ppm	± 0.01 ppm
Peracetic acid	0 – 99,000 ppm	± 0.01 ppm
Hydrogen peroxide	0 – 99,000 ppm	± 0.01 ppm
Bromine	0 – 10 ppm	± 0.01 ppm
Ozone	0 – 99,000 ppm	± 0.01 ppm
Turbidity	0 – 4,000 NTU	± 2 %
Temperature	0 – 100°C	± 0.2°C

Technical features

Features	Description	
Multiple measure	Combination from the above list	Multiple measurement channel
Calibration	Single or double point	Wizard calibration routine
Temperature measure	Compensation of Measurements or activation of an output	PT100 sensor
Voltage input	Hold function	24 Vac
Reed input	Hold function	Dry contact
Serial port	RS485 protocol	Modbus RTU/ASCII
Six output relays	Normally-open status	4 are powered 10A - 250 Vac| 2 are dry contact 10A - 250 Vac
Four solid state relays	Output frequency signal	1 - 120 pulses/minute
Four 4 - 20 mA outputs	Output current analogue signal	500 ohm max load
Display	Backlit LCD graphic display	240 x128 pixels (White background/blue font)
Power supply	100 - 240 Vac	CE Class I (earth connection required)
Enclosure box	278 x 285 x 140 mm	Wall mounting with bracket - IP65

Multi-Parameter Photometric Analysers

Product Overview

		Photometer EL	Photometer System
			
Parameter	Single		•
	Multi-parameter	•	•
Interface and display	Keypad	•	•
	LCD graphic display	128 x 64-pixel	128 x 64-pixel

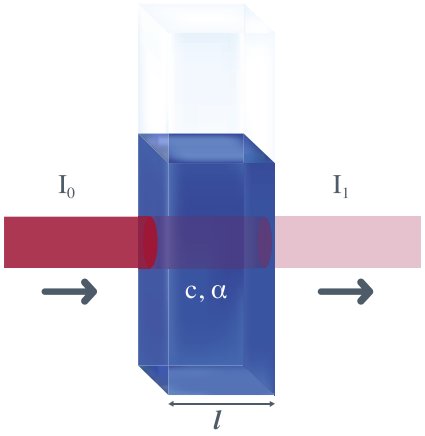
Features & benefits

- SEKO multi-parametric devices provide real-time measurement of free chlorine with the photometric method; moreover, they provide pH, ORP and temperature values with exceptional measurement precision.
- The systems are equipped with a divided graphic display that enables simultaneous display of all available measures. In addition to a photometric camera for high-precision chlorine measurement, features also include an integrated datalogger and an RS485 serial port on which a standard Modbus RTU/ASCII protocol is installed.

Photometric measurement technology

Photometric measurement, or photometry, is a technique that can be used to measure the concentration of organic or inorganic compounds in solution, determining the absorbance of specific wavelengths of light

- Photometry instruments are used for water quality analysis; they allow end users to develop a chemical profile of the sample being analysed rather than simply detecting a chemical compound.
- Most of the organic and inorganic compounds present in water are colourless and undetectable to the human eye. Photometry instruments introduce chemical reagents and a light source capable of making these otherwise invisible compounds visible.



Photometers are designed to measure the concentration of multiple types of ions and are therefore equipped with filters capable of isolating certain wavelengths of light. By exploiting different wavelengths, photometers therefore work in a very similar way to colourimeters. Test samples are combined with certain reagents; subsequently, some wavelengths of light are passed through the sample under test where part of the light is absorbed, depending on the ions present and their concentration. In conclusion, the light that can pass through the solution is measured by a photocell which allows an exact concentration measurement. This is because the amount of light absorbed by each substance dissolved in solution is directly proportional to the concentration of the sample.

Available in powder, liquid and tablet form, DPD is a reagent used to measure chlorine, ozone or bromine present in swimming pools and other water-treatment applications. All forms of DPD react with water containing chlorine, colouring the sample in various shades of pink: the deeper the colour, the greater the concentration of sanitiser.

The DPD method, like other colourimetric analysers, measures the intensity of the colours produced by the reaction between the reagents with the disinfectants present in the water. The “manual” colourimetric techniques allow the user to translate the intensity of the sample colour into concentration values by visually comparing it with reference tables. However, photometers provide more accurate readings as they can digitally analyse the colour of the sample and generate precise concentration values by referencing the calibration data stored in the instrument’s memory.

Photometer EL

A four-parameter control instrument combined with a sampler for chlorine measurement

The SEKO Photometer EL is a reference instrument for checking and measuring chlorine and is based on sampling with the photometric method (DPD). Real-time measurement of parameters ensures maximum accuracy from this miniature analysis laboratory, suitable for drinking water, basket washing, chlorine dioxide stations, swimming pools, anti-legionella disinfection, boilers and irrigation.

Available measures

Free chlorine, pH, ORP and temperature.

Interface and display

An interface consisting of a four-button keypad and 128 x 64-pixel backlit LCD graphic display clearly provides the status of the device, the parameters under control and the sampling status.

DPD pump

Reagent consumption is optimised courtesy of a two-roller peristaltic pump, with 3 x 5 mm silicone tube, which delivers exactly 0.07cc of reagent at each dosage. In this way 1 litre of DPD is sufficient for 48 days assuming a sampling time of 5 minutes.

Software functionality

Photometer EL is equipped with a circular (F.I.F.O.) or filling data-logger, with an internal 4Mbit flash memory, equal to 16,000 records, with a recording interval from 1 to 99 minutes. It has an RS485 serial port, on which a standard Modbus RTU / ASCII protocol is installed, which can be used to connect the device to a local SEKO hub to by managed via the internet through the SekoWeb portal. It also has a digital input that allows dosages to be disabled.

Available measures pH ORP CL °C°F

Measure	Range	Nominal accuracy
pH	0 – 14 pH	± 0.01 pH
ORP	± 1,500 mV	± 1 mV
Chlorine (*)	0 – 5 ppm	± 0.01 ppm
Temperature	0 – 50°C	± 0.1°C

(*) Free chlorine, in photometric chamber, with DPD method, with pH between 6.2 and 8.2 for swimming pool applications.

Photometer System

The SEKO Photometer System offers professional parameter setting and proportional dosage

Models available

Single parameter

for **free chlorine**
for **total chlorine**

Multi parameter

for **free chlorine and pH**
for **free chlorine, pH and ORP**
for **pH, ORP and free, total & combined chlorine**

The SEKO Photometer System is a professional instrument for measuring chlorine, based on sampling with the photometric method (DPD). Real-time measurement of parameters ensures the highest accuracy in professional water-treatment applications.

The Photometer System allows users to monitor up to six parameters: three parameters with the photometric sampling method and three parameters using external probes.

Interface and display

The instrument interface consists of a four-button keypad 128x64-pixel backlit LCD graphic display that displays device status, parameters under control and sampling status.

Pumps for DPD

The consumption of reagents is optimised thanks to the use of two four-roller peristaltic pumps with 3 x 5 mm silicone tubing, delivering exactly 0.15cc of reagent during each dosage. This means that 1 litre of DPD is sufficient for 24 days assuming a sampling period of 5 minutes.

DPD reagents

Level probes continuously monitor the presence of the reagents; the DPD reagent is supplied in powder form and must be diluted before use: an excellent solution for safely storing the product anywhere.

Applications

The Photometer System is used in many sectors for industrial applications including the analysis of potable water and wastewater along with food, pharmaceutical and chemical products.

Stages of the measurement cycle

Sample entry into the measuring cell for washing / priming.

First measurement of the sample (Photometric zero).

Addition of reagent by peristaltic pump.

Development of the reaction by stirring.

New sample measurement: following the absorbance, this new reading will be different from the previous one and the differential measurement between the photometric zero and this new acquisition is processed by the electronic processor and converted into a concentration value, using specific correlation tables developed in our laboratories.

The instrument displays the concentration of the substance in mg/l and determines whether or not to activate the dosing devices provided in the system to correct it. Activation can be programmed proportionally to reduce the dosage as the measurement approaches the set threshold.

The operating and maintenance costs are very low as the calibration of the system is performed automatically at each measurement cycle.

Software functions

Data-logger with circular (F.I.F.O.) or filling structure, with 4 Mbit internal flash memory, equal to 16,000 records, with recording interval from 1 to 99 minutes.

The Photometer System has an RS485 serial port, on which a standard Modbus RTU / ASCII protocol is installed, which can be used to connect the device to a local SEKO hub in order to manage it via the internet through the SekoWeb portal. The digital input allows you to disable the dosages.

Available measures

pH ORP CL °C°F

Measure	Range	Nominal accuracy
pH	0 – 14 pH	± 0.01 pH
ORP	± 1,500 mV	± 1 mV
Chlorine (*)	0 – 5 ppm	± 0.01 ppm
Temperature	0 – 50°C	± 0.1°C

(*) Free chlorine, total or combined, in photometric chamber, with DPD method, with pH between 0 and 14 pH

Measuring cell

The photometric measuring cell is made of PVC, plexiglass and glass. It includes an electronic board with RS485 interface used to communicate with the control instrument, and guarantees a high-precision chlorine measurement with optimal performance, thanks to a 520 nm sensor and LED light.

The system then has a gravity drain for clean or polluted water, a probe holder for pH, ORP, temperature and flow probes. The cell is designed to manage a hydraulic power supply of 60 l/h, at a maximum pressure of 1 bar.

Probes & Sensors

Product Overview

	pH	ORP	EC	DO	FW	CL	PAA	H_2O_2	Br	O_3	TB	SS	°C°F
Parameter	pH	ORP	Conductivity	Dissolved Oxygen	Flow-rate	Chlorine	Peracetic Acid	Hydrogen Peroxide	Bromine	Ozone	Turbidity	Suspended Solids	Temperature
Modular probe holder	•	•	•	•		•	•	•	•	•			•
Flow-through probe holders	•	•	•	•		•	•	•	•	•	•	•	•
In-line probe holders	•	•	•		•								•
Immersion probe holders	•	•	•	•							•	•	•

Features & benefits

- Monitoring a limit, a value or building a closed control circuit is effortless with our sensors. Using our sensors, it is simple and also very professional to build a measurement chain that takes into account a control system, one or more probes, a probe holder and some other accessories. The measured values are delivered in real time and can be flexibly connected to the different 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.

Complete overview of probes and probe holders for specific applications

Parameters	pH								ORP				EC													
Probes	SPH1-WP-SJ/DJ	SPH2-WP-SJ	SPH3-WW-DJ	SPH4-HP-DJ	SPH4-HT-DJ	SPH4-LC-DJ	SPH4 CR-DJ	SPH4 HF-DJ	SRH1 WP-SJ/DJ	SRH1/2 WP-AU/PT	SRH3 WW-DJ	SRH4 HT-DJ	CK-1-SS-PP	CK-5-SS-PP	CK-10-SS-PP	CTK-1-SS-PP	CTK-5-SS-PP	CTK-10-SS-PP	CTK-1-SS-PF	CTK-100-SS-SS	CTK-1-GR-PP	CTK-1-GR-EX	CK-1-PT-GL	CTK-0.1-PT-EX	CTK-10-PT-EX	CTK-0.1-GR-EX
Applications																										
Wastewater			•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•
Drinking water		•	•	•	•		•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•		•	•
Cooling towers		•	•	•	•		•	•	•	•	•		•	•	•	•	•	•	•		•	•	•		•	•
Swimming pools	•	•							•	•	•		•	•	•	•	•	•	•		•	•	•			•
Reverse osmosis			•	•	•	•			•	•	•		•	•	•	•	•	•	•	•	•	•	•		•	•
Water for boilers			•	•	•		•				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Clean in place					•		•					•	•	•	•	•	•	•	•	•	•	•	•			•
Disinfection			•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			•
Irrigation	•	•	•	•			•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Plating	•	•	•	•			•			•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•
Sludge treatment			•	•			•				•	•	•			•			•		•	•	•	•		•
Modular probe holder with open amperometric cell for chlorine measurement																										
PSS Plexi	•	•	•	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Flow-through probe holders																										
PSS7 Single	•	•	•	•	•	•	•	•	•	•	•	•										•	•	•	•	•
PSS8 A/A HP	•	•	•	•	•	•	•	•	•	•	•	•										•	•	•	•	•
PSS8 A1/A1 HP	•	•	•	•	•	•	•	•	•	•	•	•										•	•	•	•	•
PSS8 B1 HP																										
PSS8 C																										
In-line probe holders																										
PSS3 S	•	•	•	•	•	•	•	•	•	•	•	•										•	•	•	•	•
PSS3	•	•	•	•	•	•	•	•	•	•	•	•										•	•	•	•	•
SPP/SPP FIL	•	•	•	•	•	•	•	•	•	•	•	•										•	•	•	•	•
PSS EC																•	•	•								
Clamp saddles																										
Immersion probe holders																										
PI	•	•	•	•	•	•	•	•	•	•	•	•										•	•	•	•	•
PIR - PIR2	•	•	•	•	•	•	•	•	•	•	•	•										•	•	•	•	•
PCIR																	•	•	•							
PI G	•	•	•	•	•	•	•	•	•	•	•	•										•	•	•	•	•
PI A	•	•	•	•	•	•	•	•	•	•	•	•										•	•	•	•	•
S315 O																										
S315 F																										

DO	FW			CL			PAA	H_2O_2	Br	O_3	TB						SS	°C°F	
S423C OPT PVC/AISI	SFWE	SFW PVC-C	SFW SS	FCL/FCL HP/KP FCL	DCL/DCL HP/KP DCL	TCL/KP TCL	PAA	H_2O_2	KP BR	O_3	S462-PW	S461-LT	S461-LT-SS	S461-MT	S461-ST	S461-HT	S461 S	PT100 NUT	PT100 V/VPG
•	•			•	•	•					•	•	•	•	•	•	•	•	•
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pH probes

For high-precision pH measurement

pH

The knowledge of pH, which represents a classic measure of the acidity or alkalinity of water, is essential in many applications that involve chemical laboratory analysis. pH meters are used to control water quality in situations such as the water supply of cities, swimming pools, environmental remediation, food and beverage production processes and many other applications.

Electronic pH meters measure the potential difference between two electrodes present in the probe immersed in the solution and display the corresponding value, converted into pH. The probe has a special glass membrane, permeable to the hydrogen ion H+ which allows it to reach the measuring electrodes; the quality of the glass determines the quality of the probe in terms of sensitivity, response speed and mechanical resistance.

Technical features

Features	SPH1-WP-SJ	SPH1-WP-DJ	SPH2 -WP-SJ	SPH3-WW-DJ	SPH4-HP-DJ	SPH4-HT-DJ	SPH4-LC-DJ	SPH4-CR-DJ	SPH4-HF-DJ
Measurement range	pH 2 – 12	pH 2 – 12	pH 2 – 12	pH 0 – 14	pH 0 – 14	pH 0 – 14	pH 0 – 14	pH 0 – 14	pH 0 – 14
Working temperatures	0 – 60°C	0 – 60°C	0 – 60°C	0 – 80°C	-10 – 60°C	0 – 130°C	-10 – 40°C	0 – 60°C	-10 – 100°C
Max pressure	6 bar	6 bar	6 bar	6 bar	6 bar	0–6 bar @ 130°C; 0–16 bar @ 25°C	0.5 bar	2 bar	16 bar @ 100°C
Probe body material	Polycarbonate	Polycarbonate	Epoxy	Glass	Glass	Glass	Glass	Glass	Glass
Membrane material	Glass	Glass	Glass	Glass	Glass	Glass	Glass	Glass	Glass
Type of diaphragm	Pellon PTFE	Pellon PTFE	Pellon PTFE	Open hole diaphragm	Double diaphragm with open hole	Triple ceramic diaphragm	Sleeve type diaphragm	Ceramic diaphragm	Double diaphragm with open hole
Junction type	Single	Double	Single	Double	Double	Double	Double	Double	Double
Electrolyte	KCL Gel	KCL Gel	KCL Gel	KCL Gel	KCL Gel	Blue 3M KCL Pharma	3M KCL Gel	KCL Gel	Polisolve
Mechanical connection	Ø 12 mm	Ø 12 mm	Thread PG 13.5 mm	Thread PG 13.5 mm	Thread PG 13.5 mm	Thread PG 13.5 mm	Thread PG 13.5 mm	Thread PG 13.5 mm	Thread PG 13.5 mm
Electrical connection	BNC (Blue)	BNC (Blue)	S8	S8	S8	S8	S7	S8	S8
Cable	1.5m or 6 m	6 m	Not included	Not included	Not included	Not included	Not included	Not included	Not included
Dimensions	Ø 12 mm; L=120 mm								

Kontrol Series Probe Compatibility

pH Probes	Kontrol 40	Kontrol 42	Kontrol 65	Kontrol 100	Kontrol 102	Kontrol 800	Kontrol 800 Tech
SPH1-WP-SJ	•	•	•	•	•	•	•
SPH1-WP-DJ	•	•	•	•	•	•	•
SPH2 -WP-SJ	•	•	•	•	•	•	•
SPH3-WW-DJ	•	•	•	•	•	•	•
SPH4-HP-DJ	•	•	•	•	•	•	•
SPH4-HT-DJ	•	•	•	•	•	•	•
SPH4-LC-DJ	•	•	•	•	•	•	•
SPH4-CR-DJ	•	•	•	•	•	•	•
SPH4-HF-DJ	•	•	•	•	•	•	•

SPH1-WP-SJ

Single-junction polycarbonate-body pH probe. Suitable for general laboratory, swimming pool and water monitoring applications.

Technical features

Measurement range 2 – 12 pH ; **Operating temp** 0 – 60°C

Maximum pressure 6 bar

Body material PP ; **Membrane material** Glass

Diaphragm type Pellon PTFE ; **Junction type** Single

Electrolyte KCL Gel ; **Mechanical connection** Ø 12 mm

Electrical connection BNC ; **Cable** 1.5 or 6 m

SPH1-WP-DJ

Double-junction polycarbonate body pH probe. Suitable for general laboratory, swimming pool and water monitoring applications.

Technical features

Measurement range 2 – 12 pH ; **Operating temp** 0 – 60°C
Maximum pressure 6 bar
Body material PP ; **Membrane material** Glass
Diaphragm type Pellon PTFE ; **Junction type** Double
Electrolyte KCL Gel ; **Mechanical connection** Ø 12 mm
Electrical connection BNC ; **Cable** 6 m

SPH2-WP-SJ

Single-junction epoxy body pH probe. Suitable for general laboratory, swimming pool and water-monitoring applications.

Technical features

Measurement range 2 – 12 pH ; **Operating temp** 0 – 60°C
Maximum pressure 6 bar
Body material Epoxy ; **Membrane material** Glass
Diaphragm type Pellon PTFE ; **Junction type** Single
Electrolyte KCL Gel
Mechanical connection Thread PG 13.5 mm
Electrical connection S8 ; **Cable** not included

SPH3-WW-DJ

Double-junction glass body pH probe. Suitable for fish farming, galvanic processes and wastewater, drinking water and cooling water treatment.

Technical features

Measurement range 0 – 14 pH ; **Operating temp** 0 – 80°C
Maximum pressure 6 bar
Body material Glass ; **Membrane material** Glass
Diaphragm type Open hole ; **Junction type** Double
Electrolyte KCL Gel
Mechanical connection Thread PG 13.5 mm
Electrical connection S8 ; **Cable** not included

SPH4-HP-DJ

Double-junction glass reinforced pH probe. Suitable for fish farming, galvanic processes and wastewater, drinking water and cooling water treatment.

Technical features

Measurement range 0 – 14 pH ; **Operating temp** -10 – 60°C
Maximum pressure 6 bar
Body material Reinforced glass ; **Membrane material** Glass
Diaphragm type 2 open hole diaphragms
Junction type Double
Electrolyte KCL Gel
Mechanical connection Thread PG 13.5 mm
Electrical connection S8 ; **Cable** not included

SPH4-HT-DJ

Double-junction, high-temperature, triple-ceramic diaphragm pH probe with reinforced glass body. Suitable for ammonia, chrome plating, reverse osmosis, galvanic processes and bisulfite applications.

Technical features

Measurement range 0 – 14 pH ; **Operating temp** 0 – 130°C
Maximum pressure 6 bar @ 130°C; 16 bar @ 25°C
Body material Glass ; **Membrane material** Glass
Diaphragm type Triple ceramic diaphragm ;
Junction type Double
Electrolyte Blue 3M KCL Pharma
Mechanical connection Thread PG 13.5 mm
Electrical connection S8 ; **Cable** not included

SPH4-LC-DJ

Double-junction pH probe with reinforced-glass body. Suitable for fish farming, galvanic processes and wastewater, drinking water and cooling water treatment.

Technical features

Measurement range 0 – 14 pH
Operating temp -10 – 40°C
Maximum pressure 0.5 bar
Body material Reinforced glass
Membrane material Glass
Diaphragm type Sleeve
Junction type Double
Electrolyte 3M KCL Gel
Mechanical connection Thread PG 13.5 mm
Electrical connection S7 ; **Cable** not included

SPH4-CR-DJ

Double-junction pH probe with reinforced-glass body and single ceramic diaphragm. Suitable for ammonia, chrome plating, reverse osmosis, galvanic processes and bisulfite applications.

Technical features

Measurement range 0 – 14 pH
Operating temp 0 – 60°C
Maximum pressure 2 bar
Body material Reinforced glass
Membrane material Glass
Diaphragm type 1 ceramic diaphragm
Junction type Double
Electrolyte KCL Gel
Mechanical connection Thread PG 13.5 mm
Electrical connection S8 ; **Cable** not included

SPH4-HF-DJ

Double-junction pH probe with reinforced-glass body, resistant to fluorides. Suitable for wastewater, drinking water, fish farming, well water and galvanic processes.

Technical features

Measurement range 0 – 14 pH
Operating temp -10 – 100°C
Maximum pressure 16 bar @ 100°C
Body material Reinforced glass
Membrane material Glass
Diaphragm type 2 open hole diaphragms
Junction type Double
Electrolyte Polisolve
Mechanical connection Thread PG 13.5 mm
Electrical connection S8 ; **Cable** not included

ORP probes

Advanced probes for ORP measurement

ORP

In aqueous solutions, ORP is a good measure of the effectiveness of disinfectants present in the water. In a swimming pool, the higher the oxidation potential, the more efficient the disinfectant. In water monitoring, the ORP value therefore provides the operator with a quick indication of the effectiveness of the disinfectant present in the water. This allows the operator to evaluate if the current situation is adequate or if it is instead necessary to dose additional disinfectant. An ORP probe consists of a measuring electrode in contact with the solution and a reference electrode with stable potential.

Technical features

Features	SRH1-WP-SJ	SRH1-WP-DJ	SRH1-WP-AU	SRH2-WP-AU	SRH2-WP-PT	SRH3-WW-DJ	SRH4-HT-DJ
Measurement range	±1,000 mV	±1,000 mV	± 2,000 mV	± 2,000 mV	± 2,000 mV	±1,000 mV	± 2,000 mV
Operating temperature	0 – 60°C	0 – 60°C	0 – 60°C	0 – 60°C	0 – 60°C	0 – 80°C	0 – 130°C
Maximum pressure	6	6	6	6	6	6	6 bar @ 130°C; 16 bar @ 25°C
Electrode material	Platinum	Platinum	Gold	Gold	Platinum	Platinum	Platinum
Body material	Polycarbonate	Polycarbonate	Polycarbonate	Epoxy	Polycarbonate	Glass	Reinforced glass
Diaphragm type	Pellon PTFE	Pellon PTFE	Pellon PTFE	Pellon PTFE	Pellon PTFE	1 open hole	3 open hole
Junction type	Single	Double	Single	Single	Single	Double	Double
Electrolyte	KCL Gel	KCL Gel	KCL Gel	KCL Gel	KCL Gel	KCL Gel	KCL Gel
Mechanical connection	Ø 12 mm	Ø 12 mm	Ø 12 mm	Ø 12 mm	Ø 12 mm	Thread PG 13.5mm	Thread PG 13.5mm
Electrical connection	BNC (yellow)	BNC (yellow)	BNC (yellow)	BNC (yellow)	BNC (yellow)	S8	S8
Cable	1.5 m or 6 m	6 m	6 m	6 m	6 m	Not included	Not included

Kontrol Series Probe Compatibility

ORP Probes	Kontrol 40	Kontrol 42	Kontrol 65	Kontrol 100	Kontrol 102	Kontrol 800	Kontrol 800 Tech
SRH1-WP-SJ	•	•	•	•	•	•	•
SRH1-WP-DJ	•	•	•	•	•	•	•
SRH1-WP-SJ-AU	•	•	•	•	•	•	•
SRH2-WP-SJ-AU	•	•	•	•	•	•	•
SRH2-WP-PT	•	•	•	•	•	•	•
SRH3-WW-DJ	•	•	•	•	•	•	•
SRH4-HT-DJ	•	•	•	•	•	•	•

SRH1-WP-SJ

Single-junction polycarbonate-body ORP probe with platinum electrode. Suitable for general laboratory, swimming pool and water-monitoring applications.

Technical features

Measurement range ±1,000 mV
Operating temp 0 – 60°C
Maximum pressure 6 bar
Electrode material Platinum
Body material PP
Diaphragm type Pellon PTFE
Junction type Single
Electrolyte KCL Gel
Mechanical connection Ø 12 mm
Electrical connection BNC (yellow) ; **Cable** 1.5 or 6 m

SRH1-WP-DJ

ORP probe with polycarbonate body, double junction and platinum electrode. Suitable for general laboratory, swimming pool and water-monitoring applications.

Technical features

Measurement range ±1,000 mV
Operating temp 0 – 60°C
Maximum pressure 6 bar
Electrode material Platinum
Body material PP
Diaphragm type Pellon PTFE
Junction type Double
Electrolyte KCL Gel
Mechanical connection Ø 12 mm
Electrical connection BNC (yellow) ; **Cable** 6 m

SRH1-WP-AU

ORP probe with single-junction polycarbonate body and gold electrode. Suitable for general laboratory, swimming pool and water-monitoring applications.

Technical features

Measurement range ±2,000 mV ; **Operating temp** 0 – 60°C
Maximum pressure 6 bar
Electrode material Gold ; **Body material** PP
Diaphragm type Pellon PTFE ; **Junction type** Single
Electrolyte KCL Gel ; **Mechanical connection** Ø 12 mm
Electrical connection BNC (yellow) ; **Cable** 6 m

SRH2-WP-AU

Single-junction epoxy-body ORP probe with gold electrode. Suitable for general laboratory, swimming pool and water-monitoring applications.

Technical features

Measurement range ±2,000 mV ; **Operating temp** 0 – 60°C
Maximum pressure 6 bar
Electrode material Gold ; **Body material** Epoxy
Diaphragm type Pellon PTFE ; **Junction type** Single
Electrolyte KCL Gel ; **Mechanical connection** Ø 12 mm
Electrical connection BNC (yellow) ; **Cable** 6 m

SRH2-WP-PT

ORP probe with single-junction polycarbonate body and platinum electrode. Suitable for general laboratory, swimming pool and water-monitoring applications.

Technical features

Measurement range ±2,000 mV ; **Operating temp** 0 – 60°C
Maximum pressure 6 bar
Electrode material Platinum ; **Body material** PP
Diaphragm type Pellon PTFE ; **Junction type** Single
Electrolyte KCL Gel ; **Mechanical connection** Ø 12 mm
Electrical connection BNC (yellow) ; **Cable** 6 m

SRH3-WW-DJ

Double-junction glass-body ORP probe with platinum electrode. Suitable for wastewater, anti-legionella disinfection, drinking water and galvanic processes.

Technical features

Measurement range ±1,000 mV ; **Operating temp** 0 – 80°C
Maximum pressure 6 bar
Electrode material Platinum ; **Body material** Glass
Diaphragm type 1 open hole diaphragm ;
Junction type Double
Electrolyte KCL Gel
Mechanical connection Thread PG 13.5 mm
Electrical connection S8 ; **Cable** not included

SRH4-HT-DJ

ORP probe with reinforced-glass body, double junction and platinum electrode. Suitable for ammonia, chrome plating, reverse osmosis, galvanic processes and bisulfite applications.

Technical features

Measurement range ±2,000 mV ; **Operating temp** 0 – 130°C
Maximum pressure 6 bar @ 130°C ; 16 bar @ 25°C
Electrode material Platinum ; **Body material** Reinforced glass
Diaphragm type Triple diaphragm with open hole ;
Junction type Double
Electrolyte KCL Gel
Mechanical connection Thread PG 13.5 mm
Electrical connection S8 ; Cable not included

Conductivity probes

State-of-the-art probes for ultra-accurate conductivity measurement

EC

Conductivity represents one of the fundamental parameters in determining the quality of water and liquids in general because it is linked to the concentration of ions responsible for electrical conduction in a solution. Electrical conductivity is the reciprocal of electrical resistivity and measures the ability of a solution to conduct an electric current when an alternating voltage is applied to a measuring cell made up of two or four electrodes. To compensate for the geometry of the cell, each probe is characterised by a constant that can be expressed in two ways which are the inverse of one another and are indicated with the letters K and C, the first expressed in cm and the second in cm^{-1}. The conductivity of a solution is generally expressed in µS/cm.

Technical features

Features	CK-1-SS-PP	CK-5-SS-PP	CK-10-SS-PP	CTK-1-SS-PP	CTK-5-SS-PP	CTK-10-SS-PP	CTK-1-SS-PF	CTK-100-SS-SS	CTK-1-GR-PP	CTK-1-GR-EX	CK-1-PT-GL	CTK-01-PT-EX	CTK-10-PT-EX	CTK-0.1-GR-EX
Measurement range	0.5 - 5,000 µS	0.1 - 1.000 µS	0.1 - 500 µS	0.5 - 5,000 µS	0.1 - 2,000 µS	0.05 - 500 µS	0.5 - 20,000 µS	0.01 - 20 µS	0.5 - 50,000 µS	0.5 - 20,000 µS	0.5 - 20,000 µS	5 - 200,000 µS	0.05 - 500 µS	0 - 500,000 µS
K [cell constant]	1 cm	5 cm	10 cm	1 cm	5 cm	10 cm	1 cm	100 cm	1 cm	1 cm	1 cm	0.1 cm	10 cm	0.1 cm
C [cell constant]	1 cm^{-1}	0.2 cm^{-1}	0.1 cm^{-1}	1 cm^{-1}	0.2 cm^{-1}	0.1 cm^{-1}	1 cm^{-1}	0.01 cm^{-1}	1 cm^{-1}	1 cm^{-1}	1 cm^{-1}	10 cm^{-1}	0.1 cm^{-1}	10 cm^{-1}
Operating temperature	0 – 60°C	0 – 60°C	0 – 60°C	0 – 80°C	0 – 80°C	0 – 80°C	0 – 100°C	-20 – 130°C	5 – 100°C	0 – 70°C	0 – 130°C	0 – 70°C	0 – 70°C	0 – 100°C
Maximum pressure	6 bar	6 bar	6 bar	6 bar	6 bar	6 bar	2 bar	16 bar @ 130°C	5 bar	7.5 bar	6 bar	7.5 bar	7.5 bar	10 bar
Body material	PP	PP	PP	PP	PP	PP	PTFE	SS 316L	PP	Epoxy	Glass	Epoxy	Epoxy	Epoxy
Electrode material	SS 316L	SS 316L	SS 316L	SS 316L	SS 316L	SS 316L	SS 316L	SS 316L	Graphite	Graphite	Platinum	Platinum	Platinum	Graphite
Mechanical connection	½" GAS M	½" GAS M	½" GAS M	¾" GAS M	¾" GAS M	¾" GAS M	1 " GAS M	½" NPT	½" GAS M	12 mm	12 mm	12 mm	12 mm	12 mm
Electrical connection	5m cable	5m cable	5m cable	Cable not included	Cable not included	Cable not included	Cable from 5m or 10m	5m cable	Cable from 5m or 10m	6m cable	6m cable	6m cable	6m cable	6m cable
Temperature sensor	-	-	-	PT100	PT100	PT100	PT100	PT100	PT100	PT100	-	PT100	PT100	PT100

Kontrol Series Probe Compatibility

EC Probes	Kontrol 40	Kontrol 42	Kontrol 65	Kontrol 100	Kontrol 102	Kontrol 800	Kontrol 800 Tech
CK-1-SS-PP	•	•	•	•	•	•	•
CK-5-SS-PP	•	•	•	•	•	•	•
CK-10-SS-PP	•	•	•	•	•	•	•
CTK-1-SS-PP	•	•	•	•	•	•	•
CTK-5-SS-PP	•	•	•	•	•	•	•
CTK-10-SS-PP	•	•	•	•	•	•	•
CTK-1-SS-PF	•	•	•	•	•	•	•
CTK-100-SS-SS	•	•	•	•	•	•	•
CTK-1-GR-PP	•	•	•	•	•	•	•
CTK-1-GR-EX	•	•	•	•	•	•	•
CK-1-PT-GL	•	•	•	•	•	•	•
CTK-0.1-PT-EX	•	•	•	•	•	•	•
CTK-10-PT-EX	•	•	•	•	•	•	•
CTK-0.1-GR-EX	•	•	•	•	•	•	•

CK-1-SS-PP

Medium conductivity probe, with steel electrodes and PP body without temperature sensor. Suitable for reverse osmosis, irrigation, wastewater, drinking water and cooling-tower water treatment.

Technical features

Measurement range 1 – 5,000 µS

Cell constant K 1 cm ; **Cell constant** C 1 cm-1

Operating temperature 0 – 60°C ; **Maximum pressure** 6 bar

Body material PP ; **Electrode material** SS316 L

Mechanical connection ½" GAS M

Electrical connection 5m cable

Temperature sensor Not present

CK-5-SS-PP

Probe for medium-low conductivity, with steel electrodes and PP body without temperature sensor. Suitable for reverse osmosis, irrigation, wastewater, drinking water and cooling-tower water treatment.

Technical features

Measurement range 0.1 – 1,000 µS
Cell constant K 5 cm ; **Cell constant C** 0.2 cm^{-1}
Operating temperature 0 – 60°C ; **Maximum pressure** 6 bar
Body material PP ; **Electrode material** SS316 L
Mechanical connection ½" GAS M
Electrical connection 5m cable
Temperature sensor Not present

CK-10-SS-PP

Low-conductivity probe, with steel electrodes and PP body without temperature sensor. Suitable for reverse osmosis and fish farming.

Technical features

Measurement range 0.1 – 500 µS
Cell constant K 10 cm ; **Cell constant C** 0.1 cm^{-1}
Operating temperature 0 – 60°C ; **Maximum pressure** 6 bar
Body material PP ; **Electrode material** SS316 L
Mechanical connection ½" GAS M
Electrical connection 5m cable
Temperature sensor Not present

CTK-1-SS-PP

Medium-conductivity probe, with steel electrodes, PP body and temperature sensor. Suitable for irrigation, wastewater, drinking water and cooling water.

Technical features

Measurement range 5 – 5,000 µS
Cell constant K 1 cm ; **Cell constant C** 1 cm^{-1}
Operating temperature 0 – 80°C
Maximum pressure 6 bar
Body material PP ; **Electrode material** SS316 L
Mechanical connection ¾" GAS M
Electrical connection Removable connector
Temperature sensor PT100

CTK-5-SS-PP

Probe for medium-low conductivity, with steel electrodes, PP body and temperature sensor. Suitable for irrigation, drinking water and cooling water.

Technical features

Measurement range 0.5 – 2,000 µS
Cell constant K 5 cm ; **Cell constant C** 0.2 cm^{-1}
Operating temperature 0 – 80°C
Maximum pressure 6 bar
Body material PP ; **Electrode material** SS316 L
Mechanical connection ¾" GAS M
Electrical connection Removable connector
Temperature sensor PT100

CTK-10-SS-PP

Low-conductivity probe, with steel electrodes, PP body and temperature sensor. Suitable for reverse osmosis and fish farming.

Technical features

Measurement range 0.01 – 500 µS
Cell constant K 10 cm ; **Cell constant C** 0.1 cm^{-1}
Operating temperature 0 – 80°C
Maximum pressure 6 bar
Body material PP ; **Electrode material** SS316 L
Mechanical connection ¾" GAS M
Electrical connection Removable connector
Temperature sensor PT100

CTK-1-SS-PF

Probe for medium-high conductivity, with steel electrodes, body in PTFE and temperature sensor. Suitable for reverse osmosis, irrigation, wastewater, drinking water and cooling water.

Technical features

Measurement range 0 – 20,000 µS
Cell constant K 1 cm ; **Cell constant C** 1 cm^{-1}
Operating temperature 0 – 100°C
Maximum pressure 2 bar
Body material PTFE ; **Electrode material** SS316 L
Mechanical connection 1" GAS M
Electrical connection 5m or 10m cable
Temperature sensor PT100

CTK-100-SS-SS

Probe for extra-low-conductivity values, with steel electrodes, steel body and temperature sensor. Mainly suitable for reverse osmosis applications.

Technical features

Measurement range 0.04 – 20 µS
Cell constant K 100 cm ; **Cell constant C** 0.01 cm^{-1}
Operating temperature -20 – 130°C
Maximum pressure 16 bar @ 130°C
Body material SS316 L ; **Electrode material** SS316 L
Mechanical connection ½" NPT
Electrical connection 5m cable
Temperature sensor PT100

CTK-1-GR-PP

Probe for medium-high conductivity, with graphite electrodes and PP body loaded with graphite and temperature sensor. Suitable for drinking water, industrial processes, boilers, wastewater and salt water.

Technical features

Measurement range 0 – 50,000 µS
Cell constant K 1 cm ; **Cell constant C** 1 cm^{-1}
Operating temperature 5 – 100°C
Maximum pressure 5 bar
Body material PP + 30% Graphite ;
Electrode material Graphite
Mechanical connection ½" GAS M
Electrical connection 5m or 10m cable
Temperature sensor PT100

CTK-1-GR-EX

Probe for medium-high conductivity, with graphite electrodes, epoxy body and temperature sensor. Suitable for irrigation, wastewater, drinking water and cooling water.

Technical features

Measurement range 5 – 20,000 µS
Cell constant K 1 cm ; **Cell constant C** 1 cm^{-1}
Operating temperature 0 – 70°C
Maximum pressure 7.5 bar
Body material Epoxy ; **Electrode material** Graphite
Mechanical connection 12 mm
Electrical connection 6m cable
Temperature sensor PT100

CK-1-PT-GL

Probe for medium-high conductivity with platinum electrodes and glass body without temperature sensor. Suitable for reverse osmosis and fish farming.

Technical features

Measurement range 1 – 20,000 µS
Cell constant K 1 cm ; **Cell constant C** 1 cm^{-1}
Operating temperature 0 – 130°C
Maximum pressure 6 bar
Body material Glass ; **Electrode material** Platinum
Mechanical connection 12 mm
Electrical connection 6m cable
Temperature sensor Not present

CTK-01-PT-EX

High-conductivity probe with platinum electrodes, epoxy body and temperature sensor. Suitable for wastewater and salt water.

Technical features

Measurement range 100 – 200,000 µS
Cell constant K 0.1 cm ; **Cell constant C** 10 cm^{-1}
Operating temperature 0 – 70°C
Maximum pressure 7.5 bar
Body material Epoxy ; **Electrode material** Platinum
Mechanical connection 12 mm
Electrical connection 6m cable
Temperature sensor PT100

CTK-10-PT-EX

Extra-low-conductivity probe with platinum electrodes, epoxy body and temperature sensor. Suitable for irrigation, wastewater, drinking water and cooling water.

Technical features

Measurement range 0.1 – 500 µS
Cell constant K 10 cm ; **Cell constant C** 0.1 cm^{-1}
Operating temperature 0 – 70°C
Maximum pressure 7.5 bar
Body material Epoxy ; **Electrode material** Platinum
Mechanical connection 12 mm
Electrical connection 6m cable
Temperature sensor PT100

CTK-0.1-GR-EX

Probe for high conductivity, with graphite electrodes, epoxy body and temperature sensor. Suitable for irrigation, wastewater, drinking water and cooling water.

Technical features

Measurement range 0 – 500,000 µS
Cell constant K 0.1 cm ; **Cell constant C** 10 cm^{-1}
Operating temperature 0 – 100°C
Maximum pressure 10 bar
Body material Epoxy ; **Electrode material** Graphite
Mechanical connection 12 mm
Electrical connection 6m cable
Temperature sensor PT100

Dissolved oxygen probes

For precise measurement of dissolved oxygen

DO

Dissolved oxygen (DO) is a measure of the concentration of free oxygen molecules present in water. The concentration of DO is an important indicator of the health of an aquatic ecosystem and fundamental for almost all forms of life. Dissolved oxygen in water comes from two main sources: the atmosphere and photosynthesis. The main factors that affect its concentration are temperature, altitude, salinity and the water's degree of stagnation or movement.

The correct DO level depends on the intended use of the system. In industrial applications, the make-up water must have low DO levels to avoid corrosion and the formation of limescale in the pipes. A high DO level improves the taste of drinking water; however, should this become excessive it can increase corrosion in pipes and transport lines. If the DO level falls too low, for example in aquaculture applications, fish will suffocate. In similar situations, in a purification plant, the bacteria that feed the decomposition process will die and the plant will stop. For these reasons, monitoring the content of dissolved oxygen is important to ensure the efficiency of many processes. For the measurement of dissolved oxygen, SEKO proposes the following probe:

Kontrol Series Probe Compatibility

DO Probes	Kontrol 40	Kontrol 42	Kontrol 65	Kontrol 100	Kontrol 102	Kontrol 800	Kontrol 800 Tech
S423C OPT PVC	-	-	•*	•*	•	-	•*
S423C OPT AISI	-	-	•*	•*	•	-	•*

*Requested an external power supply

S423C OPT PVC

Optical measurement using the luminescence method; high precision and short response time; 4 - 20 mA output. Suitable for wastewater, sludge treatment, fish farming and biological treatments.

Technical features

Measurement range 0 – 20 ppm

Nominal accuracy ± 1% ; ± 0.2 mg/l for DO <5 mg/l ; ± 0.3 mg/l for DO >5 mg/l

Response time 90% of the value in less than 60 seconds

Operating temperature 0 – 50°C

Maximum pressure 5 bar ; **Body material** PVC

Electrode material Special glass for optical applications

Mechanical protection IP68 (sensor + Cable)

Mechanical connection ¾" BSP (Ø 36 mm)

Power supply 12 – 24 Vdc

Electrical connection 10 m cable

Electric output 4 – 20 mA

S423C OPT AISI

Optical measurement using the luminescence method; high precision and short response time; 4 - 20 mA output. Suitable for wastewater, sludge treatment, fish farming and biological treatments.

Technical features

Measurement range 0 – 20 ppm

Nominal accuracy ± 1% ; ± 0.2 mg/l for DO <5 mg/l ; ± 0.3 mg/l for DO >5 mg/l

Response time 90% of the value in less than 60 seconds

Operating temperature 0 – 50°C

Maximum pressure 5 bar ; **Body material** AISI

Electrode material Special glass for optical applications

Mechanical protection IP68 (sensor + Cable)

Mechanical connection ¾" BSP (Ø 36 mm)

Power supply 12 – 24 Vdc

Electrical connection 10 m cable

Electric output 4 – 20 mA

Flow-rate sensors

FW

Guaranteeing accurate, repeatable results in flow-rate measurement

The flow can be expressed as volumetric flow rate, mass flow rate or in terms of volume or total displaced mass. The measurement is obtained using two devices: one, primary, which is placed in direct contact with the fluid and which generates a signal and one, secondary, which translates this signal into a movement or a signal to indicate, record, control or calculate the flow. Other devices indicate or calculate the flow directly through the interaction of the fluid flowing in the pipeline and the measuring device which is placed directly or indirectly in contact with the fluid.

In magnetic instruments, the voltage induced by a magnet in a conductive liquid flowing in a pipe is proportional to the velocity of the fluid. This magnetic induction principle is used in the SFWE series sensors; they have no moving parts. All flow rate meters without moving mechanical parts can also be used for the measurement of dirty liquids, as long as they are conductive and homogeneous.

The paddle wheel sensors of the SFW series use a different principle. They have a paddle wheel that rotates according to the flow rate, in whose blades small magnets are inserted. These, passing in front of a Hall sensor, generate a series of pulses whose frequency is proportional to the speed of the liquid which, multiplied by the area of the pipe section, gives the flow rate.

The 4 - 20 mA output allows the transmission of flow rate information even over a long distance. The specific design allows accurate measurement in a wide range of pipes, from DN15 (0.5 ") up to DN600 (24"). Suitable for **wastewater, sludge treatment, fish farming and biological treatment.**

Kontrol Series Probe Compatibility

FW Probes	Kontrol 40	Kontrol 42	Kontrol 65	Kontrol 100	Kontrol 102	Kontrol 800	Kontrol 800 Tech
SFW PVC-C	-	-	•	•	-	•	•
SFW SS	-	-	•	•	-	•	•
SFWE	-	-	•*	•*	•	-	•*

*Requested an external power supply

Simple and reliable paddle wheel flow sensor designed for use with any type of liquid without suspended solids

Simple and reliable paddle wheel flow sensor designed for use with any type of liquid without suspended solids. The paddle wheel flow sensor has a square wave output via NPN open collector transistor that allows connection to any type of digital input of the instrument. A specially designed family of fittings guarantees quick and easy installation for all types of pipes, of any material, in sizes from DN15 to DN600 (from 0.5 "to 24"). Suitable for **drinking water, fish farming, cooling water treatment, swimming pools and the textile industry.**

SFWE

Technical features

Measurement range 0.15 – 8 m/s
Pipe size range DN15 – DN600
Pressure / Operating temperature
16 bar at 25°C ; 8.6 bar at 70°C
Enclosure material ABS
Degree of protection IP65
Body material SS 316L / PVDF
Seals FPM
Electrode materials SS 316L
Electrical connection Cable not included
Mechanical connection Insertion in probe holder
Power supply 5 – 24 Vdc
Frequency output 0 – 500 Hz
Analogue output 4 – 20 mA

SFW PVC-C

Technical features

Measurement range 0.15 – 8 m/s
Pipe size range DN15 – DN600
Pressure / Operating temperature
up to 10 bar at 25°C ;
up to 1.5 bar at 80°C
Body material C-PVC
Seals EPDM or FPM
Rotor ECTFE (Halar®)
Shaft and bearings Ceramic
Electrical connection Cable not included
Mechanical connection Insertion in probe holder
Power supply 5 – 24 Vdc
Frequency output 45 Hz per m/s (nominal)

SFW SS

Technical features

Measurement range 0.15 – 8 m/s
Pipe size range DN15 – DN600
Pressure / Operating temperature
up to 25 bar at 120°C
Body material SS 316L
Seals EPDM or FPM
Rotor ECTFE (Halar®)
Shaft and bearings Ceramic
Electrical connection Cable not included
Mechanical connection Insertion in probe holder
Power supply 5 – 24 Vdc
Frequency output 45 Hz per m/s (nominal)

Chlorine probes

Ensuring consistently accurate chlorine measurement

CL

Chlorine is a compound used directly or indirectly in various sectors such as paper, antiseptics, dyes, food, insecticides, paints, petroleum products, plastics, medicines, fabrics, solvents and many other consumer products. It is used to kill bacteria and other microbes in the drinking water supply and in the swimming pools. Chlorine is also used in bleaching wood pulp for paper making, while bleach is also used industrially to remove ink from recycled paper.

Free chlorine, chlorine dioxide and total chlorine are usually measured to monitor and control the disinfection of drinking water, recycled water or water in swimming pools. In fact, when chlorine is added to water, it reacts with the organic compounds and metals present in the liquid, forming combined chlorine. Combined chlorine is not active for disinfection.

Probes for free chlorine

Free chlorine is chlorine which is present in water as hypochlorous acid (HOCl) or as hypochlorite ion (OCl^-). Its measurement guarantees the available quantity of chlorine for disinfection or purification purposes. The most robust and reliable measurement technique is the use of a potentiostatic free chlorine sensor.

Kontrol Series Probe Compatibility

FCL Probes	Kontrol 40	Kontrol 42	Kontrol 65	Kontrol 100	Kontrol 102	Kontrol 800	Kontrol 800 Tech
KP-FCL 10PPM	-	•	•	•	•	•	•
FCL4	-	•	•	•	•	•	•
KP-FCL 2PPM	-	•	•	•	•	•	•
FCL6	-	•	•	•	•	•	•
FCL7	-	•	•	•	•	•	•
FCL8	-	•	•	•	•	•	•
FCL9	-	•	•	•	•	•	•
FCL10	-	•	•	•	•	•	•
KP-FCL 5PPM	-	•	•	•	•	•	•

FCL - Free Chlorine Sensor

Chlorine sensor with membrane-covered, amperometric 2-electrode system suitable for the measurement of free inorganic chlorine at constant pH. The sensor measures the concentration of free chlorine in the water being measured. Such chlorine arises from the application of inorganic chlorine products (such as chlorine gas, sodium hypochlorite solution, calcium hypo-chlorite solution).

Sealed-cell chlorine sensor, 4 - 20 mA output with Integrated automatic temperature compensation. Guaranteed accuracy with a short response time thanks to active amperometric measurement.

Suitable for the measurement of free inorganic chlorine, free of surfactants and with constant pH. Calibration is due to analytical chlorine determination by DPD-1 method.

Suitable for the treatment of drinking water, wastewater, service and process water, seawater and swimming pools.

Technical features

Inorganic free chlorine at constant pH
Measurement range
0 – 0.5 ppm / 0 – 200 ppm
pH range 6 – 8
Pressure range 0 – 1 bar

Operating temperature 0 – 45°C

Flow rate range
Approximately 15 - 30 l/h
(low flow dependence)

Body material PVC-U ;
Electrode Silver chloride with gold ;
Membrane PTFE

Electrical connection Cable not included ;
Connector Two-pole terminal

KP-FCL - Free Chlorine Sensor

Chlorine sensor with membrane-covered, amperometric 2-electrode system suitable for the measurement of inorganic/organic free chlorine with reduced pH dependence. The sensor measures the concentration of free chlorine in the water being measured. Such chlorine arises from the application of inorganic chlorine products (such as chlorine gas, sodium hypochlorite solution, calcium hypo-chlorite solution).

Sealed-cell chlorine sensor, 4 - 20 mA output with integrated automatic temperature compensation. Guaranteed accuracy with a short response time thanks to active amperometric measurement; color label for quick indication of the type of measurement.Calibration is due to analytical chlorine determination by DPD-1 method.

Suitable for the treatment of drinking water, Water treatment, Industrial applications, Brine water applications and swimming pools.

Technical features

Inorganic/Organic free chlorine
with reduced pH dependence
Measurement range
0 – 2 ppm / 0 - 5 ppm / 0 – 10 ppm
pH range 4 – 10
Pressure range 0 – 3 bar

Operating temperature 0 – 45°C

Flow rate range Approximately 30 l/h

Body material PVC Electro polished ;
Electrode Silver chloride with gold ;
Membrane KE-FCL01

Electrical connection Cable not included ;
Connector Two-pole terminal

FCL HP - Free high-pressure chlorine sensor

Sensor for the measurement of inorganic free chlorine with open measuring cell, 4 - 20 mA output and automatic temperature compensation. Guaranteed accuracy and short response time thanks to active amperometric measurement. It can be used for the measurement of free inorganic chlorine at high pressure (up to 8 bar). Ideal for drinking water, waste water, process water, sea water and swimming pools.

Technical features

Measurement range 0 – 1 ppm / 0 – 5 ppm

pH range 5 – 9

Operating temperature 0 – 50°C / 0 – 70°C

Pressure range 0 – 8 bar

Flow rate Approximately 30 l/h

Body material PVC-U, PEEK ;
Electrode Gold ;
Membrane No membrane

Electrical connection Cable not included ;
Connector Two-pole terminal

Chlorine dioxide probes

Chlorine dioxide is a neutral chlorine compound. It is very different from elemental chlorine, both in its chemical structure (ClO_2) and in its behaviour. One of the most important qualities of chlorine dioxide is its high solubility in water, especially in cold water. Chlorine dioxide does not hydrolyze when it enters the water; a dissolved gas remains in solution. Chlorine dioxide is about 10 times more soluble in water than chlorine. It is not affected by the pH and has an excellent residual effect remaining active for hours or even days. It does not interact with ammonia and is effective even at cold temperatures.

Chlorine dioxide is today one of the most powerful disinfection methods in the water industry and is extremely effective in controlling legionella. Therefore the correct measurement of its concentration in water is essential because it guarantees an effective use of chlorine dioxide for disinfection purposes and other applications. Too low a dosage can be ineffective, while overdosing can cause the formation of particularly harmful hypochlorite in the tank.

Kontrol Series Probe Compatibility

DCL Probes	Kontrol 40	Kontrol 42	Kontrol 65	Kontrol 100	Kontrol 102	Kontrol 800	Kontrol 800 Tech
KP-DCL 10PPM	-	-	•	•	•	•	•
DCL-2	-	-	•	•	•	•	•
DCL-3	-	-	•	•	•	•	•
KP-DCL 2PPM	-	-	•	•	•	•	•

KP-DCL - Chlorine dioxide

Sealed-cell chlorine dioxide sensor with reduced pH dependence, 4-20 mA output with integrated automatic temperature compensation. Guaranteed accuracy, color label for quick indication of the type of measurement and short response time thanks to active amperometric measurement.

Suitable for the treatment of drinking water, Water treatment, Industrial applications, Brine water applications and swimming pools.

Technical features

Measuring range 0-2 ppm / 0 -10 ppm

pH range 1-11

Operating temperature 0 – 45°C

Pressure range 0 – 1 bar

Flow rate ≥ 30 - 60 l/h
(low flow dependence)

Body material PVC-U ; **Electrode** Gold ;
Membrane KE-DCL01

Electrical connection Cable not included ;
Connector Two-pole terminal

DCL HP - High-pressure chlorine dioxide

Open-cell chlorine dioxide sensor, 4 - 20 mA output with automatic temperature compensation. Guaranteed accuracy and short response time thanks to active amperometric measurement. Suitable for the measurement of chlorine dioxide at high pressure. Suitable for drinking water, wastewater, process water, swimming pools and seawater.

Technical features

Measurement range 0 – 1 ppm

pH range 1 – 12

Operating temperature 0 – 50°C / 0 – 70°C

Pressure range 0 – 5 bar / 0 – 8 bar

Flow rate Approximately 30 l/h

Body material PVC-U, PEEK ;
Electrode Gold ;
Membrane No membrane

Electrical connection Cable not included ;
Connector Two-pole terminal

Total chlorine probe

Total chlorine is the combination of the free chlorine left in the water and the combined chlorine. Total chlorine sensors are commonly used in wastewater treatment plants to measure the residual disinfection power of effluent water.

Kontrol Series Probe Compatibility

TCL Probes	Kontrol 40	Kontrol 42	Kontrol 65	Kontrol 100	Kontrol 102	Kontrol 800	Kontrol 800 Tech
KP-TCL 10PPM	-	-	•	•	•	•	•
KP-TCL 5PPM	-	-	•	•	•	•	•
TCL-3	-	-	•	•	•	•	•

TCL - Total chlorine

Total chlorine sensor with sealed cell, 4 - 20 mA output and automatic temperature compensation. Guaranteed accuracy and short response time thanks to active amperometric measurement. Suitable for drinking water, swimming pools and sea water.

Technical features

Measurement range 0 – 5 ppm / 0 – 10 ppm

pH range 4 – 12 (linear decrease with around 5% when pH level increases by one)

Operating temperature 0 – 45°C

Pressure range 0.5 bar

Flow rate Approximately 30 l/h

Body material PVC-U, PEEK, SS 1.4571 ;
Electrode Silver chloride with gold ;
Membrane PTFE

Electrical connection Cable not included ;
Connector Two-pole terminal

KP-TCL - Total chlorine

Total chlorine sensor with sealed cell, 4 - 20 mA output and automatic temperature compensation. Guaranteed accuracy and short response time thanks to active amperometric measurement. Suitable for drinking water, swimming pools and sea water.

Technical features

Measurement range 0 – 2 ppm

pH range 4 - 12

Operating temperature 0 – 45°C

Pressure range 0 - 1 bar

Flow rate ≥ 30 - 60 l/h
(low flow dependence)

Body material PVC Electro polished ;
Electrode Silver chloride with gold ; \
Membrane KE-TCL01

Electrical connection Cable not included ;
Connector Two-pole terminal

Probes for peracetic acid

For superior peracetic acid measurement

PAA

Peracetic acid is also used for the spray washing of food products and for the disinfection of cooling water systems. As a disinfectant agent, PAA is often preferred over chlorine products because it does not dissociate into potentially harmful products. Peracetic acid sensors are amperometric devices isolated from water by a permeable membrane. When the PAA diffuses through this membrane, it comes into contact with an active electrode and is reduced on its surface. Consequently, the sensor generates a current proportional to the concentration of PAA. Peracetic acid sensors require a constant flow of the liquid under examination through the membrane placed on the tip of the probe. Sample agitation is required and therefore not recommended in still water.

Kontrol Series Probe Compatibility

PAA Probes	Kontrol 40	Kontrol 42	Kontrol 65	Kontrol 100	Kontrol 102	Kontrol 800	Kontrol 800 Tech
PAA-1	-	-	•	•	•	-	•
PAA-2	-	-	•	•	•	-	•
PAA-3	-	-	•	•	•	-	•
PAA-4	-	-	•	•	•	-	•

PAA - Peracetic acid

Peracetic acid sensor with 4 - 20 mA output and automatic temperature compensation. Precision, accuracy and reliability guaranteed with a very short response time. Suitable for fresh water and for all types of water treatment, especially for disinfection in sensitive uses, in the food, pharmaceutical and medical sectors. Can also be used in wastewater treatment.

Technical features

Measurement range
0 – 200 ppm / 0 – 500 ppm /
0 – 2,000 ppm / 0 – 5,000 ppm

pH range 1 – 6

Operating temperature 0 – 45°C

Pressure range 0 – 1 bar

Flow rate Approximately 30 l/h

Body material PVC-U, SS 1.4571 ;
Electrode Silver chloride with gold ;
Membrane PTFE

Electrical connection Cable not included ;
Connector Two-pole terminal

Probes for hydrogen peroxide

Achieve repeatable results in hydrogen peroxide measurement

H_2O_2

Hydrogen peroxide is also used for washing food products and for disinfecting cooling water systems. As a disinfectant agent it is often preferred to chlorine-based products because it does not separate into potentially harmful products. Hydrogen peroxide sensors are amperometric devices isolated from water by a permeable membrane. When the peroxide diffuses through this membrane, it comes into contact with an active electrode and reduces on its surface and, consequently, the sensor generates a current proportional to its concentration. The sensors require a constant flow of the liquid under test through the membrane placed on the tip of the probe. Sample agitation is required and therefore not recommended in still water.

Kontrol Series Probe Compatibility

H2O2 Probes	Kontrol 40	Kontrol 42	Kontrol 65	Kontrol 100	Kontrol 102	Kontrol 800	Kontrol 800 Tech
H2O2-1	-	-	•	•	•	-	•
H2O2-1 HIGH	-	-	•	•	•	-	•
H2O2-2	-	-	•	•	•	-	•
H2O2-3 HIGH	-	-	•	•	•	-	•

H_2O_2 - Hydrogen peroxide

Hydrogen peroxide sensor with low flow rate dependence, with 4 - 20 mA output, membrane resistant and insensitive to surfactants and automatic thermal compensation. Guaranteed precision and accuracy, plus quick commissioning thanks to reduced initialisation times. No faults caused by turbidity or colouring courtesy of the amperometric measurement principle.

Technical features

Measurement range
0 – 200 ppm / 0 – 500 ppm
0 – 20,000 ppm / 0 – 200 ppm
(High concentration)

pH range 2 – 11

Operating temperature 0 – 45°C

Pressure range 0 – 1 bar

Flow rate Approximately. 30 l/h

Body material PVC-U, SS 1.4571

Electrode Silver chloride with gold

Membrane PTFE

Electrical connection Not included ;
Connector Two-pole terminal

Bromine probes

For superior bromine measurement

Br

As an alternative to chlorine compounds, bromine compounds are increasingly used for the disinfection of water, despite the greater reagent costs. In disinfection, bromine has some advantages over chlorine compounds: greater disinfectant action at high pH values, less volatility at higher temperatures, less resulting corrosion, less formation of unpleasant odours and finally less irritation of mucous membranes due to bromine compounds liberated (bromine combined).

Kontrol Series Probe Compatibility

BR Probes	Kontrol 40	Kontrol 42	Kontrol 65	Kontrol 100	Kontrol 102	Kontrol 800	Kontrol 800 Tech
KP-BR 10PPM	-	-	•	•	•	-	•

KP-Br - Bromine

Sealed-cell bromine sensor, 4 - 20 mA output and automatic temperature compensation. Guaranteed accuracy and short response time, thanks to active amperometric measurement. Suitable for process water, cooling water, swimming pool and seawater.

Technical features

Measurement range 0.05 – 10 ppm

pH range 5 – 9

Operating temperature 0 – 45°C

Pressure range 0 – 1 bar

Flow rate ≥ 30 l/h to 60 l/h
(low flow dependence)

Body material PVC Electro polished ;
Electrode Silver chloride with gold ;
Membrane KE-BR01

Electrical connection Cable not included ;
Connector Two-pole terminal

Ozone probes

For professional ozone measurement

O_3

Ozone is currently the second most widely used disinfectant for drinking water after chlorine, although its use is almost exclusively limited to industrial countries that have efficient water networks. Therefore, it is used to pre-treat the source of water at the origin and subsequently allow chlorination with a lower dose of chlorine in the distribution system. Although ozonation has the power to effectively disinfect water, this method is not suitable for most applications in developing countries due to the high cost and the need for maintenance infrastructure.

Kontrol Series Probe Compatibility

O3 Probes	Kontrol 40	Kontrol 42	Kontrol 65	Kontrol 100	Kontrol 102	Kontrol 800	Kontrol 800 Tech
OZ-1	-	-	•	•	•	-	•
OZ-2	-	-	•	•	•	-	•
OZ-3	-	-	•	•	•	-	•

O_3 - Ozone

Ozone sensor with 4 - 20 mA output, surfactant resistant membranes and automatic temperature compensation. Guaranteed precision and accuracy with a short response time thanks to the active amperometric measurement. Long service life courtesy of membrane-covered measuring electrodes inserted into an electrolyte. In this way, optimal measurement conditions can be maintained regardless of process conditions. Suitable for fresh water ready for use and salt water.

Technical features

Measurement range
0 – 2 ppm / 0 – 5 ppm / 0 – 10 ppm

pH range 2 – 11 / 4 - 9

Operating temperature 0 – 45°C

Pressure range 0 – 1 bar

Flow rate Approximately 30 l/h

Body material PVC-U, SS 1.4571

Electrode Silver chloride with gold

Membrane PTFE

Electrical connection Cable not included

Connector Two-pole terminal

Turbidity probes

The professionals' choice for repeatable turbidity measurement

TB

The term turbidity indicates the reduction in transparency of a water sample due to the presence of suspended substances. The measurement of water turbidity is based on the amount of light scattered by the particles present in the water column and is considered a good measure of water quality.

Technical features

Features	S461-LT	S461-LT-SS	S461-MT	S461-ST	S461-HT
Measurement range	0 – 10 NTU	0 – 10 NTU	0 – 100 NTU	0 – 1000 NTU	0 – 4000 NTU
Measurement method	Scattered light at 90°	Scattered light at 90°	Scattered light at 90°	Scattered light at 90°	Scattered light at 90°
Operating temperature	0 – 50°C	0 – 50°C	0 – 50°C	0 – 50°C	0 – 50°C
Maximum working pressure	4 bar	4 bar	4 bar	4 bar	4 bar
Body material	PVC black	SS 316L	PVC black	PVC black	PVC black
Seals material	Viton and silicone	Viton and silicone	Viton and silicone	Viton and silicone	Viton and silicone
Optical group	Special glass with oleophobic treatment	Special glass with oleophobic treatment	Special glass with oleophobic treatment	Special glass with oleophobic treatment	Special glass with oleophobic treatment
Mechanical connection	1" GAS (Ø 42 mm); IP68	1" GAS (Ø 42 mm); IP68	1" GAS (Ø 42 mm); IP68	1" GAS (Ø 42 mm); IP68	1" GAS (Ø 42 mm); IP68
Power supply	12 – 24 Vdc	12 – 24 Vdc	12 – 24 Vdc	12 – 24 Vdc	12 – 24 Vdc
Electrical connection	10 m cable	10 m cable	10 m cable	10 m cable	10 m cable
Analogue output	4 – 20 mA	4 – 20 mA	4 – 20 mA	4 – 20 mA	4 – 20 mA

Kontrol Series Probe Compatibility

TB Probes	Kontrol 40	Kontrol 42	Kontrol 65	Kontrol 100	Kontrol 102	Kontrol 800	Kontrol 800 Tech
S461 LT	-	-	•*	•*	•	-	•*
S461 LT SS	-	-	•*	•*	•	-	•*
S461 MT	-	-	•*	•*	•	-	•*
S461 ST	-	-	•*	•*	•	-	•*
S461 HT	-	-	•*	•*	•	-	•*

*Requested an external power supply

S461 LT

Sensor suitable for low turbidity levels; made of PVC with 4 - 20 mA output. Guaranteed accuracy and short response time. Suitable for water-treatment, swimming pools and drinking water applications.

Technical features

Measurement range 0 – 10 NTU

Measurement method Scattered light at 90°

Operating temperature 0 – 40°C

Maximum pressure 4 bar ; **Body material** PVC black

Seals Viton and silicone

Optics Special glass with oleophobic treatment

Mechanical connection 1" GAS (Ø 42 mm); IP68

Power supply 12 – 24 Vdc ; **Electrical connection** 10 m cable

Electric output 4 – 20 mA

S461 LT SS

Sensor suitable for low turbidity made of steel with 4 - 20 mA output. Guaranteed accuracy and short response time. Suitable for the food industry and for the beverage packaging sector.

Technical features

Measurement range 0 – 10 NTU
Measurement method Scattered light at 90°
Operating temperature 0 – 40°C
Maximum pressure 4 bar ; **Body material** SS316 L
Seals Viton and silicone
Optics Special glass with oleophobic treatment
Mechanical connection 1" GAS (Ø 42 mm); IP68
Power supply 12 – 24 Vdc ; **Electrical connection** 10 m cable
Electric output 4 – 20 mA

S461 MT

Low/medium-turbidity sensor in PVC, with 4 - 20 mA output. Guaranteed accuracy and short response time. Suitable for untreated water, well water, surface water and waste water.

Technical features

Measurement range 0 – 100 NTU
Measurement method Scattered light at 90°
Operating temperature 0 – 40°C
Maximum pressure 4 bar
Body material PVC black
Seals Viton and silicone
Optics Special glass with oleophobic treatment
Mechanical connection 1" GAS (Ø 42 mm); IP68
Power supply 12 – 24 Vdc ; **Electrical connection** 10 m cable
Electric output 4 – 20 mA

S461 ST

Sensor suitable for medium/high-turbidity values; made of PVC and equipped with 4 - 20 mA output. Guaranteed accuracy and short response time. Suitable for untreated water, well water, surface water and waste water.

Technical features

Measurement range 0 – 1000 NTU
Measurement method Scattered light at 90°
Operating temperature 0 – 40°C
Maximum pressure 4 bar
Body material PVC black
Seals Viton and silicone
Optics Special glass with oleophobic treatment
Mechanical connection 1" GAS (Ø 42 mm); IP68
Power supply 12 – 24 Vdc ; **Electrical connection** 10 m cable
Electric output 4 – 20 mA

S461 HT

Sensor used for high-turbidity values; made of PVC, with 4 - 20 mA output. Guaranteed accuracy and short response time. Suitable for sludge treatment.

Technical features

Measurement range 0 – 4000 NTU
Measurement method Scattered light at 90°
Operating temperature 0 – 40°C
Maximum pressure 4 bar
Body material PVC black
Seals Viton and silicone
Optics Special glass with oleophobic treatment
Mechanical connection 1" GAS (Ø 42 mm); IP68
Power supply 12 – 24 Vdc
Electrical connection 10 m cable
Electric output 4 – 20 mA

Probes for suspended solids

SS

Monitoring suspended solids in industrial and wastewater is useful for process control

Sensors for suspended solids are optical devices that operate in the infrared range. Unlike turbidity probes, they use “back-diffusion” to allow the detection of suspended solids larger than those found by turbidity sensors and to measure the concentration. Operation using infrared light ensures a very long sensor life and minimises the effects of colour change in the sample.

Kontrol Series Probe Compatibility

SS Probes	Kontrol 40	Kontrol 42	Kontrol 65	Kontrol 100	Kontrol 102	Kontrol 800	Kontrol 800 Tech
S461 S	-	-	•*	•*	•	-	•*

*Requested an external power supply

S461 S

Suspended solids sensor with steel body and 4 - 20 mA output. Precision and degree of accuracy guaranteed with excellent response time control. Suitable for sludges from biological processes, paper mills, chemical industry, food, extraction plants, quarries, tunnel construction and aggregate extraction.

Technical features

Measurement range 0 – 30 g/l

Measurement method Absorption of light

Operating temperature 0 – 40°C

Maximum pressure 4 bar

Body material SS 316 L

Seals Viton ; **Optics** Special glass

Mechanical connection 1” GAS (Ø 42 mm); IP68

Power supply 12 – 24 Vdc

Electrical connection 10 m cable

Electric output 4 – 20 mA

Temperature probes

For ultra-reliable, consistent temperature measurement

°C°F

Temperature is a critical parameter for determining water quality and is of fundamental importance for the environment. It determines the maximum concentration of dissolved oxygen in the water and affects the speed of chemical and biological reactions. Temperature is intrinsically a measure of the thermal state of a material.

One of the most-used methods to determine temperature is measurement by using a resistance thermometer. Resistance thermometers offer great stability, accuracy and repeatability. The advantages of platinum resistance thermometers include high precision and a wide operating range. The electrical resistance of the sensor used in this type of thermometer, called RTD, changes as the temperature varies; rising in line with temperature increase and for this reason it is defined as PTC (Positive Temperature Coefficient). The measurement of the electrical resistance value therefore allows the user to determine the temperature under examination.

In industrial applications, PT100 sensors are widely used. The abbreviation PT indicates that the sensor is made of platinum (Pt), while the number 100 establishes that the sensor has an electrical resistance of 100 ohms at 0°C.

Kontrol Series Probe Compatibility

ORP Probes	Kontrol 40	Kontrol 42	Kontrol 65	Kontrol 100	Kontrol 102	Kontrol 800	Kontrol 800 Tech
PT100 V	•	•	•	•	•	•	•
PT100 VPG	•	•	•	•	•	•	•
PT100 NUT-1/2G	•	•	•	•	•	•	•
PT100 NUT-3/4G	•	•	•	•	•	•	•

PT100 NUT

Technical features

Measurement range 0 – 50°C

Pressure range 0 – 7 bar @ 20°C

Body material PVC

Sensor PT100

Electrical connection 3 m 2-wire cable ;
Mechanical connection ½" Gas M

Electrical connection 2 m 3-wire cable ;
Mechanical connection ¾" Gas M

PT100 V

Technical features

Measurement range -10 – 130°C

Pressure range 0 – 7 bar @ 60°C

Body material Pyrex

Sensor PT100

Electrical connection 5 m tripolar cable ;
Mechanical connection 12 mm

PT100 VPG

Technical features

Measurement range -10 – 130°C

Pressure range 0 – 7 bar @ 60°C

Body material Pyrex

Sensor PT100

Electrical connection 5 m tripolar cable ;
Mechanical connection PG 13.5 mm

Probe Holders

Product Overview

					
Model	Modular probe holders	Flow-through probe holders	In-line probe holders	Immersion probe holders	Certified buffer solutions
Probe Accommodation	1 - 6	1 - 3	1	1	

Features & benefits

- Choose from modular, continuous flow, immersion, and in-line insertion models to suit any application.
- Built with high-quality materials to ensure long-lasting performance in harsh environments.
- Delivers precise and reliable data for optimal system control and efficiency.
- Perfectly suited for industries like water treatment, cooling towers, and swimming pools.
- Designed for quick setup and minimal upkeep, saving time and reducing downtime.
- Engineered to integrate seamlessly with a variety of systems across diverse industries and locations.

Probe Holders

Patented modular probe holder, with open amperometric cell for chlorine measurement (organic and inorganic) and flow sensor

Open amperometric probes offer stable and accurate measurements to determine chlorine concentration. They exploit the potential difference that is created between a pair of electrodes, one copper and the other platinum, when they are crossed by a stable flow of water in which chlorine ions are present. This type of cell is normally positioned by creating a "by-pass", in parallel to the main pipeline of the process, and making sure that it is crossed by a constant flow which, to ensure the best measurement quality, must be stabilised around 15.9 gph.

The modular system created by SEKO (covered by an industrial patent) consists of an amperometric cell that can be mechanically coupled to other probe-holder modules, intended to house probes for pH, ORP and temperature along with potentiostatic probes for the determination of other substances. A further module allows the user to view the flow rate of the liquid that passes through the probe-holder block; a "reed" type sensor, placed in correspondence with the value of 15.9 gph, allows it to obtain a consent signal when the flow in the probe holder is optimal.

Chlorine amperometric cell

Technical features

Measurement range 0 – 5 ppm
pH range 6.5 – 8.2
Operating temperature 0 – 60°C
Pressure range 0 – 6 bar
Electrodes Copper and platinum

PSS Plexi

Probe holder in PMMA, resistant up to five bar of pressure and an operating temperature of 60°C.

There are 12 different modules that can accommodate all our probes and the modular configuration allows users to assemble up to six together, thus creating various configurations, able to satisfy every need.

The modules are designed to perfectly fit our range of probes and ensure perfect measurement in every water-treatment application.

Technical features

Body Material Transparent PMMA
For probes from PG 13.5, 24, 36, 42 mm
Operating temperature 0 – 60°C
Pressure range 0 – 5 bar
Flow rate range Approximately 60 l/h
Hydraulic connection 8 x 12 mm tube
Infinitely variable **up to six probes:**

pH ORP EC DO CL PAA

H_2O_2 Br O_3 TB °C°F

Probe holder for continuous flow, immersion and in-line insertion

A complete range of probe holders for professional installations

SEKO's range of probe holders offers safety, reliability and convenience when it comes to measuring pH, ORP, dissolved oxygen and conductivity. The product range extends from immersion, in-line and continuous flow supports, up to fully-automated calibration and cleaning systems.

For correct operation, the probes must always be installed using supports that ensure correct mechanical protection and the degree of impermeability. The probes can be immersed in tanks, inserted in pipes or placed in sample collection containers.

Flow-through holders

Used for measurement in either a by-pass or directly in the main pipeline for all industrial processes

The PSS7 is used for in-line measurements, in which a part of the flow of the liquid under examination is taken from the main line to pass it through the probe holder

Single

The probe holder can be used by passing water from a pressure pipeline through it, at up to 6 bar. The material of the probe holder is characterised by good transparency and excellent resistance to chemical agents.

Suitable for process applications where up to three different sensors can be used in the same beaker and especially suited to wastewater, fish farming and oxidation sludge.

Technical features

Material (head) PP (Polypropylene)

Material (glass) SAN (Styrene Acrylonitrile)

Probe holder housing Female thread ¾" GAS

Hydraulic connection 4 x 6 mm / 8 x 12 mm (tube)

Operating temperature 0 – 40°C

Pressure range 0 – 6 bar

Accommodates one probe for:

pH EC ORP °C°F

The PSS8 is an essential component in any water-treatment application requiring a simple solution for the installation of one or more probes

The PSS8 series is the ideal solution for the installation of probes in by-pass configuration and is the result of SEKO's long experience in the design and construction of probe holders. Once installed, the measurement electrode is always in contact with the fluid, providing an accurate and reliable measurement. Available in four different versions to meet all needs for the industrial process sector.

Main features:

- Pressure range: 1 bar @ 50°C ; 2 bar @ 40°C ; 5 bar @ 20°C
- Adapters for PG 13.5, 12, 24, 33, 36, 42 mm probes
- Hydraulic connections with 8 x 12 mm hose
- Integrated "reed" flow sensor, already active at 0.5 bar
- Wall mounting with integrated bracket
- Compatibility with pH 2.7 to 12
- Suitable for reverse osmosis, irrigation, wastewater, drinking water and cooling water applications

PSS8 A / PSS8 A HP

Technical features

Material (head) PP Black

Material (glass) Transparent PMMA

Probe holder housing PG 13.5 and 12 mm

Operating temperature 0 – 40°C

Pressure range
0 – 2 bar – standard version
0 – 5 bar – HP version

pH range 4 – 10

Flow sensor Integrated reed

Accommodates three probes for: pH ORP EC °C°F

PSS8 A1 / PSS8 A1 HP

Technical features

Material (head) PP black

Material (glass) PP black

Probe holder housing PG 13.5 and 12 mm

Operating temperature 0 – 40°C

Pressure range
0 – 2 bar – standard version
0 – 5 bar – HP version

pH range 2.7 – 12

Flow sensor Integrated reed

Accommodates three probes for: pH ORP EC °C°F

PSS8 B1 HP

Technical features

Material (head) PP black

Material (glass) PP black

Probe holder housing 33, 36 and 42 mm

Operating temperature 0 – 40°C

Pressure range 0 – 5 bar

pH range 2.7 – 12

Flow sensor Integrated reed

Accommodates one probe for: DO TB SS

PSS8 C

Technical features

Material (head) PP black

Material (glass) Transparent PMMA

Probe holder housing 24 mm

Operating temperature 0 – 40°C

Pressure range 0 – 2 bar

pH range 4 – 10

Flow sensor Integrated reed

Accommodates one probe for: CL PAA H_2O_2 Br O_3

In-line probe holder

Suitable for aggressive chemical processes as well as for applications with high-level hygiene requirements

These probe holders are used to insert a probe directly into the tube where the process liquid passes. The probes must be positioned vertically or inclined, at a maximum of 45°, in the direction of the flow. The section of the pipeline, where the probe is inserted, must always be between two taps or isolation valves, so that the flow can be interrupted or diverted during the maintenance phase of the probe or system.

PSS3 S

Simple and short pressurised connection in PP for low/medium operating pressure, which allows the insertion of a probe directly into the pipe where the liquid to be measured passes with a maximum inclination of 45° in the direction of flow. Suitable for swimming pools and irrigation systems.

Technical features

Body material PP
Probe holder housing 12 mm
Hydraulic connection ½" GAS Male Thread
Operating temperature 0 – 60°C
Pressure range 0 – 7 bar
Accommodates one probe for: pH ORP EC °C°F

PSS3

Pressurised connection for high pressure in PVC, which allows the insertion of a probe directly into the pipe where the liquid to be measured passes with a maximum inclination of 45° in the direction of the flow. Suitable for swimming pools, wastewater, cooling water and irrigation systems.

Technical features

Body material PVC
Probe holder housing PG 13.5 and 12 mm
Hydraulic connection ½" GAS M
Operating temperature 0 – 60°C
Pressure range 0 – 12 bar
Accommodates one probe for: pH ORP EC °C°F

SPP

Pressurised fitting for very high pressures that allows the insertion of a probe directly into the pipe where the liquid to be measured passes, with a maximum inclination of 45° in the direction of the flow. Suitable for swimming pools, wastewater, cooling water and irrigation systems.

Technical features

Body material PP and PVC
Probe holder housing PG 13.5 and 12 mm
Hydraulic connection 1" GAS female thread
Operating temperature 0 – 60°C
Pressure range 0 – 16 bar
Accommodates one probe for: pH ORP EC °C°F

SPP FIL

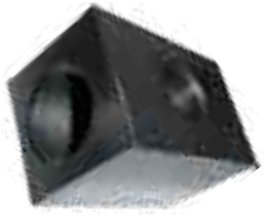
Pressurised fitting for very high pressures that allows the insertion of a probe directly into the pipe where the liquid to be measured passes, with a maximum inclination of 45° in the direction of the flow. Suitable for swimming pools, wastewater, cooling water and irrigation systems.

Technical features

Body material PP and PVC
Probe holder housing PG 13.5 and 12mm
Hydraulic connection 1" GAS female thread
Operating temperature 0 – 60°C
Pressure range 0 – 16 bar
Accommodates one probe for: pH ORP EC °C°F

PSS EC

Drain support for Model CTK1, 5 and 10 conductivity probes. Suitable for cooling towers, reverse osmosis and irrigation systems.



Technical features

Body material PVC black
Probe holder housing ¾" Gas female thread
Hydraulic connection 1" GAS female thread
Operating temperature 0 – 50°C
Pressure range 0 – 6 bar
Accommodates one probe for: EC

Saddle brackets for SFW sensors

Bracket for mounting over pipes from DN50 to DN200. Allows the insertion of a paddle wheel flow sensor of the SFW family. Suitable for cooling-towers, reverse osmosis and irrigation systems.

Technical features

Body material PVC ; Gasket FPM/EPDM
Mechanical connection
1 ¼" GAS female or T-flange
Probe holder housing ¾" GAS female
Operating temperature 0 – 50°C
Pressure range 0 – 10 bar
Accommodates one probe for: FW

Probe holder for immersion probes

Robust and reliable interface for industrial measurement processes in tanks, basins and pipes

SEKO immersion probe holders can be adapted to any type of industrial process. Measurements can be performed with up to two sensors at the same time, at diving depths of up to four metres. Custom adaptations and cleaning equipment complete the list of features of the immersion probe holders. The models with an adjustable flange can be used in combination with a counter flange which allows for quick and easy installation and removal.

PI

Guarantees correct mounting and mechanical protection by providing a high degree of waterproofing for the sensors. Submersible in tanks, which can be inserted into pipes or placed inside containers. Suitable for wastewater, fish farming and oxidation sludge.

Technical features

Body material PVC
Probe holder housing PG 13.5 and 12 mm
Mechanical connection Non-adjustable flange
Depth of immersion 400 – 2,000 mm
Operating temperature 0 – 40°C
One probe for pH ORP EC

PIR

Provides high mechanical protection and superior impermeability for sensors. Submersible in tanks, insertable in pipes or placed in containers. Suitable for wastewater, fish farming, biological treatment and oxidation sludge.

Technical features

Body material PVC
Probe holder housing PG 13.5 and 12 mm
Mechanical connection
Adjustable flange; FER optional
Depth of immersion 200 – 1,500 mm
Operating temperature 0 – 40°C
One probe for pH ORP EC

PIR2

Guarantees correct assembly and high mechanical protection, giving an excellent degree of impermeability to sensors. Submersible in tanks, insertable in pipes or placed in containers. Suitable for wastewater, fish farming, biological treatment and oxidation sludge.

Technical features

Body material PP
Probe holder housing PG 13.5 and 12 mm
Mechanical connection Adjustable flange
Depth of immersion 400 – 1,000 mm
Operating temperature 0 – 80°C
One probe for pH ORP EC

PCIR

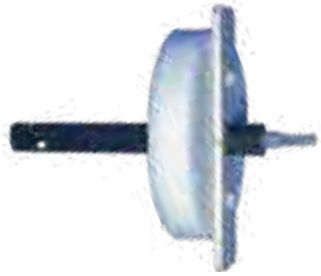
Guarantees correct mounting with ¾" adapter for CTK conductivity sensors. Submersible in tanks, insertable in pipes or placed in containers. Suitable for wastewater and biological treatment.

Technical features

Body material PP
Probe holder housing ¾" GAS male
Mechanical connection Adjustable flange
Immersion depths 400 – 1,500 mm
Operating temperature 0 – 80°C
One probe for EC

PI G

Ensures correct mounting and provides high mechanical protection with a superb degree of waterproofing for sensors. Submersible in tanks, insertable in pipes or placed in containers with adjustable flanges. Mechanical connection is ensured by means of an anchor arm. Suitable for wastewater, fish farming, biological treatment and oxidation sludge.



Technical features

Body material PVC
Probe holder housing PG 13.5 and 12 mm
Mechanical connection B-PI-G in PP
Depth of immersion Up to 2 metres deep by means of an anchor arm
Operating temperature 0 – 40°C
One probe for pH ORP EC

PI A

Immersion fitting with rinsing function to clean the sensor without opening or disassembling the fitting. Ensures long-term consistency of measurement, reducing the need for ongoing maintenance. Submersible in tanks, insertable in pipes or placed in containers with adjustable flanges. Suitable for wastewater, fish farming, biological treatment and oxidation sludge.

Technical features

Body material PVC
Probe holder housing PG 13.5 and 12 mm
Mechanical connection Adjustable flange
Depth of immersion 400 – 800 mm
Operating temperature 0 – 40°C
Pressure range 0 – 6 bar
Flow rate 100 – 600 l/h
One probe for pH ORP EC

S315 O

Immersion fitting with 45° bend for probes used to measure dissolved oxygen in water, tanks and pipes. Suitable for water treatment, biological treatment and fish farming.

Technical features

Body material PP with 45° PVC curve

Probe holder housing ¾" GAS (Ø 42 mm)

Depth of immersion 500 – 2,500 mm

Optional adapter flange for backwashing

Operating temperature 0 – 80°C

One probe for DO

S315 F

Immersion fitting for turbidity and suspended solids sensors and measurement in tanks and pipes. Suitable for primary and wastewater treatment plants, chemical paper industry, food, extraction plants, fish farming and biological treatment.

Technical features

Body material PP

Probe holder housing 1" GAS (Ø 42 mm)

Depth of immersion 500 – 1,500 mm

Optional adapter flange for backwashing

Operating temperature 0 – 80°C

One probe for TB SS

Certified buffer solutions

Guaranteeing superior accuracy in measuring instrument calibration

SEKO's standard conductivity solutions and pH buffers are essential for calibrating water quality testers, ensuring accurate pH, redox, and conductivity measurements. The special double-cap container keeps solutions fresh and uncontaminated, providing high pH stability for up to five years while preventing microorganism growth. Now UFI Certified, these solutions meet the latest safety and regulatory standards.

KIT STPH

Technical features

SEKO offers a kit of certified and low-cost pH buffers to satisfy the non-professional user by providing a product in 70 cc bottles that meet all the essential needs in a swimming pool.

For pH value 4.00 and 7.00

Volume 70 cc per bottle

Conductivity pH

KIT STPHRX

Technical features

SEKO offers a certified, low-cost pH and ORP kit to meet all non-professional needs in 70cc bottles each. Ideal for the needs of the swimming pool sector.

For pH value 4.00/7.00 and ORP values of +465 mV

Volume 70 cc per bottle

Conductivity pH ORP

STPH

Technical features

SEKO offers a selection of high-quality pH buffer solutions to meet all market needs.

For pH value 4.00/7.00/9.22/10.01

Reference temperatures 25°C

Volume 250ml per bottle/500 ml only for ph 10.01

Conductivity pH

STRX 465

Technical features

ORP buffer solutions are used for testing all common ORP sensors. They are not used for calibration purposes and are sensitive to changes in temperature.

For ORP values of +465 mV

Reference temperatures 25°C

Volume 250 ml

Conductivity ORP

STMS

Technical features

SEKO offers conductivity standards whose stability of ± 1% is guaranteed for a maximum duration of three years. They can be used repeatedly as long as the bottle is not left open for more than 1 hour in total.

MS 8 for conductivity values of 84 µS

MS 14 for conductivity values of 1423 µS

MS 128 for conductivity values of 12880 µS

Reference temperatures 25°C

Volume 500 ml

Conductivity EC

Globally Present, Locally Active

Twenty-three national SEKO companies across six continents means that, wherever you are, you enjoy the same exceptional level of service as every SEKO customer around the world.

And an accredited partner distributor network allows us to provide local customer support in over 120 countries, so you benefit from region-specific knowledge and rapid delivery of goods as well as world-class after-sales service and technical assistance.

SEKO Hub

A world of SEKO in one

For everyone from buyers and engineers to end users, SEKO Hub is the ultimate all-encompassing platform that brings you to the heart of SEKO and gives you what you need when you need it.

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