

# seko

## Solutions for **Dosing & Liquid Transfer**



Your Choice,  
Our Commitment

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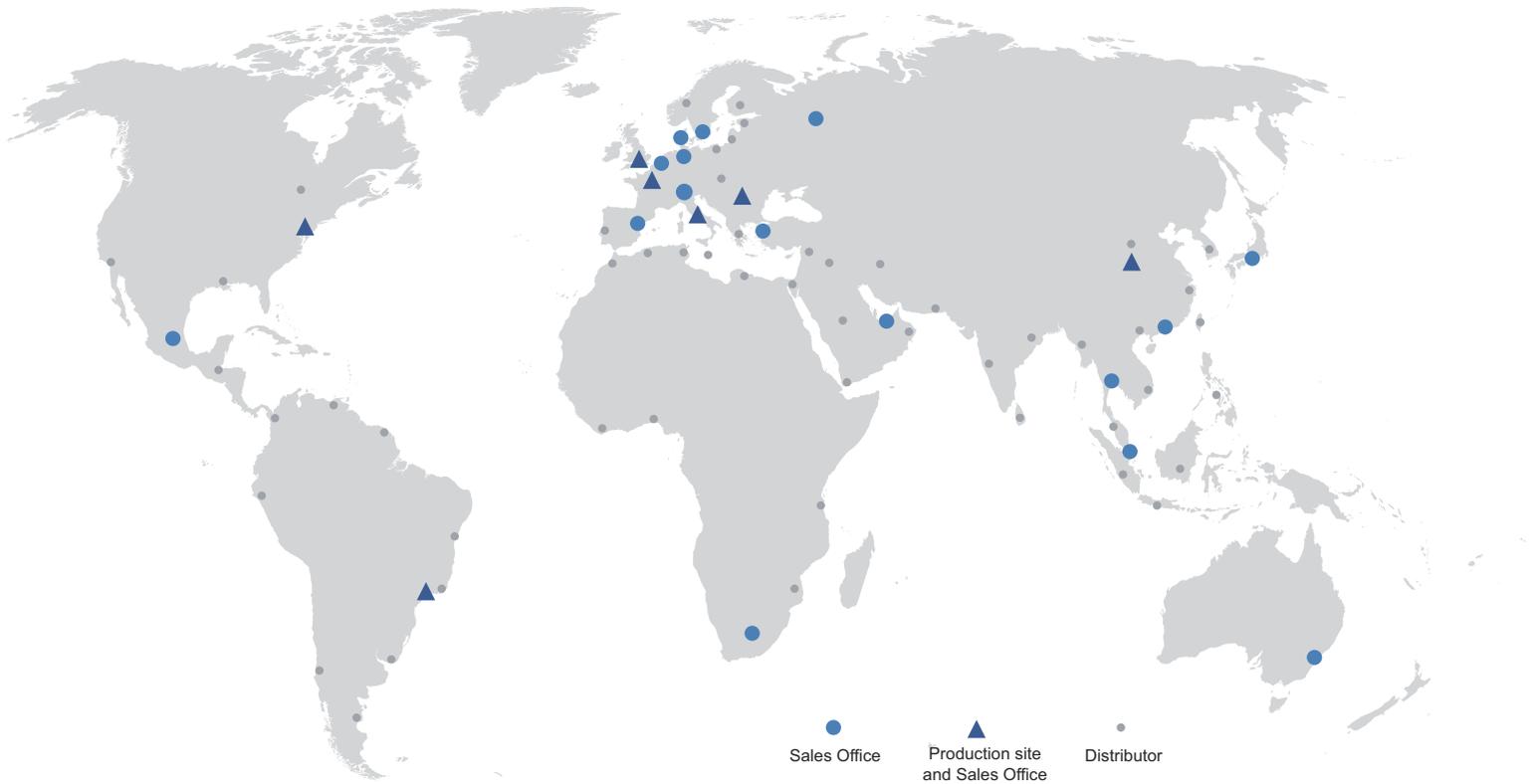
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# A Worldwide Group at your service

## Globally Present, Locally Active

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

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

# How SEKO works for You

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

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

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

## 1 Partnership Philosophy

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

## 2 Your Business, Our Solutions

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

## 3 Uniquely Positioned

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

# Pump Solutions for Liquid Transfer

An ever-evolving  
set of solutions to  
move liquids safely  
and securely

SEKO designs and develops its own electromechanical and motor driven pumps, which include reciprocating positive displacement pumps, providing the greatest possible reliability and accuracy across many applications including pumping supercritical fluids.

Every pump we design and produce shares common strengths: whether your needs include low maintenance costs, or long service life for diaphragms or perhaps pumps built to meet the exacting demands of the oil and gas, food and beverage or water industries.

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

## Precision and Consistency

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

## Safety and Reliability

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

## Ease of Use and Installation

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

## Operational Efficiency

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

# Tekna Series

## Clever

Just 5 Models, Just PVDF,  
All functions in one pump

- **5 models** that cover 0,4 to 110 l/h with an output pressure up to 20 Bar
- **1 Casing** allows skids to be pre-constructed, as the fixing points remain constant, and the pumps can be selected on confirmation of the dosing flow

**evo** **Inventory Reduction**  
**Reduce spares stock holding**



## Compatible

PVDF pump head and ceramic ball valve as standard

- **PVDF** is suitable for almost all chemical used in the Industrial, Waste Water Treatment and potable Water applications
- The use of **Ceramic balls** as standard improves the pumping reliability and the chemical compatibility of the whole liquid end

**evo** **Full chemical compatibility**



## Reliable

Long life diaphragm tested to give 5 years working life

- The advanced design and manufacturing process allows the diaphragm to have a unique life expectancy
- Made of pure solid **PTFE**, the diaphragm is compatible with most chemicals
- The diaphragm has been tested over a period of 5 years giving superior results
- Routine diaphragm replacement is no longer a requirement

**evo** **Reduced maintenance**  
**Full chemical compatibility**



# The **Evolution** of solenoid dosing pumps

A new concept of programming menu. Once a function is selected, the pump displays only the parameters that are associated with the specific function

PVDF pump head and ceramic ball valve as standard

Stabilized Multi Power Supply 100÷240 Vac 50/60 Hz with reduced consumption



Solenoid diaphragm pump

## Steady Dosing Performance

Stabilized Multi Power Supply 100÷240 Vac 50/60 Hz with reduced consumption

- Reduced power consumption as the solenoid only draws the required power to activate the pump, based on the working conditions

- **Stable dosing performance:** improve pump efficiency as performance is not affected by power supply fluctuations
- **Reduce inventory holding**



Hydraulic diaphragm pump

## Intuitive programming

A new concept of programming menu

- Programming menu are self explanatory and available in 5 languages
- **Intelligent Display**, once a function is selected the pump will only display the parameters to set, which are linked to the selected function

- **Reduced programming time**



Mechanical diaphragm pump & plunger pump

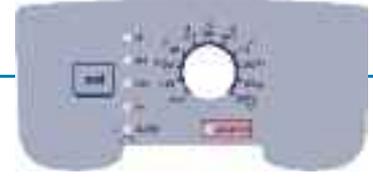
# Versions

## Tekna Analogue version



### AKS Costant dosage

Analogue dosing pump with constant flow rate manually adjustable by control dial on the front panel, two frequency range (0÷20% or 0÷100%), Power-ON led indicator.



### APG Proportional dosage

Analogue dosing pump with constant flow rate manually adjustable, proportional flow rate according to an external analogue (4÷20 mA) or digital pulse signal (e.g. from water meter).

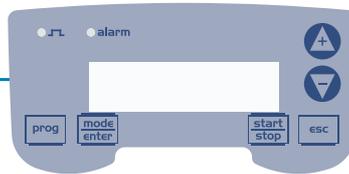
- Control dial (percentage and "n" value in multiplication mode)
- 6 position adjustable switch:
  - 3 in division mode (1, 4, 10 = n)
  - 1 in multiplication mode (n=1)
  - 1 for proportional 4÷20 mA signal
  - 1 for constant functionality
- "pacing" function adjustable by dip switch



### AKL Costant dosage

Analogue dosing pump with constant flow rate manually adjustable by control dial on the front panel, two frequency range (0÷20% or 0÷100%), Power-ON led indicator and level control input.

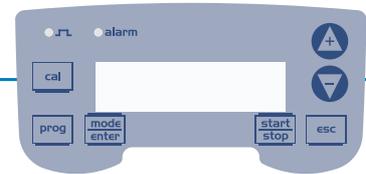
## Tekna Digital version



### TPG Proportional dosage

Digital dosing pump with constant flow rate manually adjustable, proportional flow rate according to an external analog (4÷20 mA) or digital pulse signal (e.g. from water meter).

- Timer function, ppm dosing, statistics, password and On/Off input (remote switch).

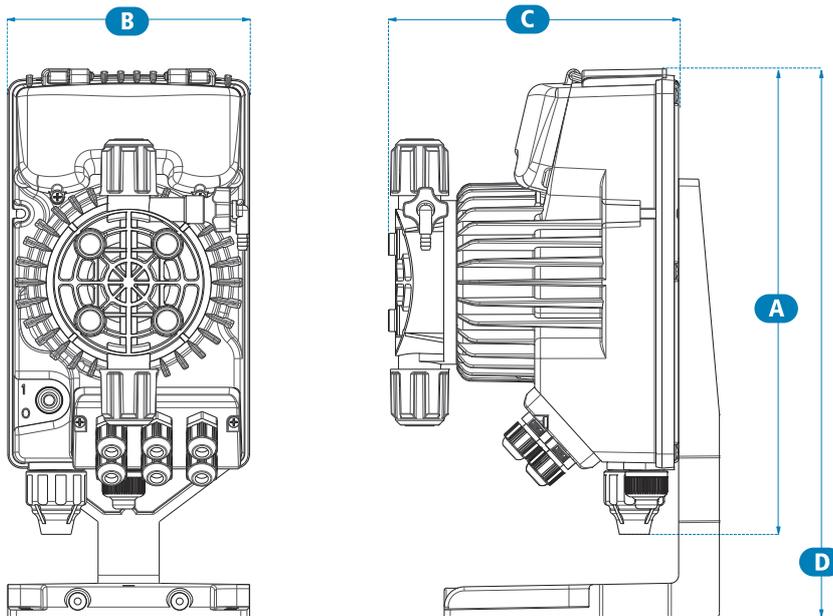
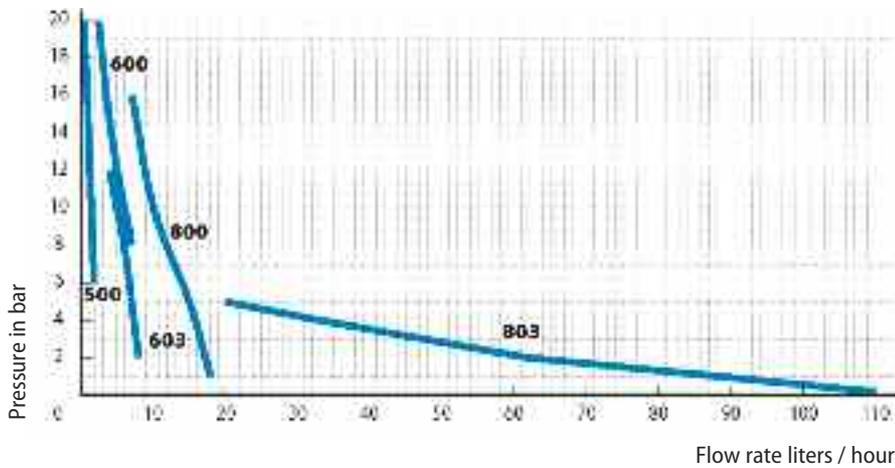


### TPR Proportional dosage

Digital dosing pump with pH/Redox control meter built in.

- Digital interface for constant or proportional dosing, depending on the measured pH or Rx value
- PT100 probe input for thermal compensation
- Repetition alarm relay
- Input On-Off for remote control
- 4÷20 mA output for measure transmission

# Flow Rate and Dimensional Drawings



## DIMENSIONS [mm]

Model	500 600 603 800	803
<b>A</b> (Height)	231	
<b>B</b> (Width)	119	
<b>C</b> (Depth)	145	149
<b>D</b> (Max Height)	257	

## Installation Kit

The pumps are supplied complete with the indispensable accessories for their correct installation as: Foot filter, Screws, Fixing bracket, Injection valve, 2m PE tube (delivery), 4 m PVC tube (suction), Seal in FPM and EPDM



Wall-mounted bracket



Injection valve (PVC) (G3/8", G1/2")



Foot valve (PVC)



PVC Suction tube



PE Delivery tube



Vertical mounting bracket

# Pumps Identification

Solenoid diaphragm pump

Hydraulic diaphragm pump

Mechanical diaphragm pump & plunger pump

Version		
<b>AKL</b>	Analogue	Analogue dosing pump with constant flow rate manually adjustable and level control input
<b>TPG</b>	Digital	Digital dosing pump with constant flow rate manually adjustable, with proportional flow rate according to an external analog (4÷20 mA) or digital signal (water meter)
<b>TPR</b>		Digital dosing pump with pH/Redox control meter built in

Model	Pressure [bar]	Flow rate [L/h]	Stroke capacity [cc/stroke]	Ø Connections IN / OUT [mm]	Frequency max [stroke/min]	Consumption [W]	Weight [Kg]	Carton size (LxWxH)
<b>500</b>	20	0,4	0,06	4 / 6 suc. 4 / 7 dis.	120	15	3,4	285x185x240 (mm)
	16	0,8	0,11					
	10	1,2	0,16					
	6	1,5	0,21					
<b>600</b>	20	2,5	0,35	4 / 6 suc. 4 / 7 dis.	120	20	3,9	
	18	3	0,42					
	14	4,2	0,58					
	8	7	0,97					
<b>603</b>	12	4	0,42	4 / 6	160	20	3,4	
	10	5	0,52					
	8	6	0,63					
	2	8	0,83					
<b>800</b>	16	7	0,38	4 / 6	300	40	4,4	
	10	10	0,55					
	5	15	0,83					
	1	18	1,00					
<b>803</b>	5	20	1,11	8 / 12	300	40	4,4	
	4	32	1,78					
	2	62	3,44					
	0,1	110	6,11					

Power supply		
<b>N</b>	100÷240 Vac	50-60 Hz

Liquid end material		
<b>H</b>	Pump head : PVDF	Balls : Ceramic Diaphragm : PTFE

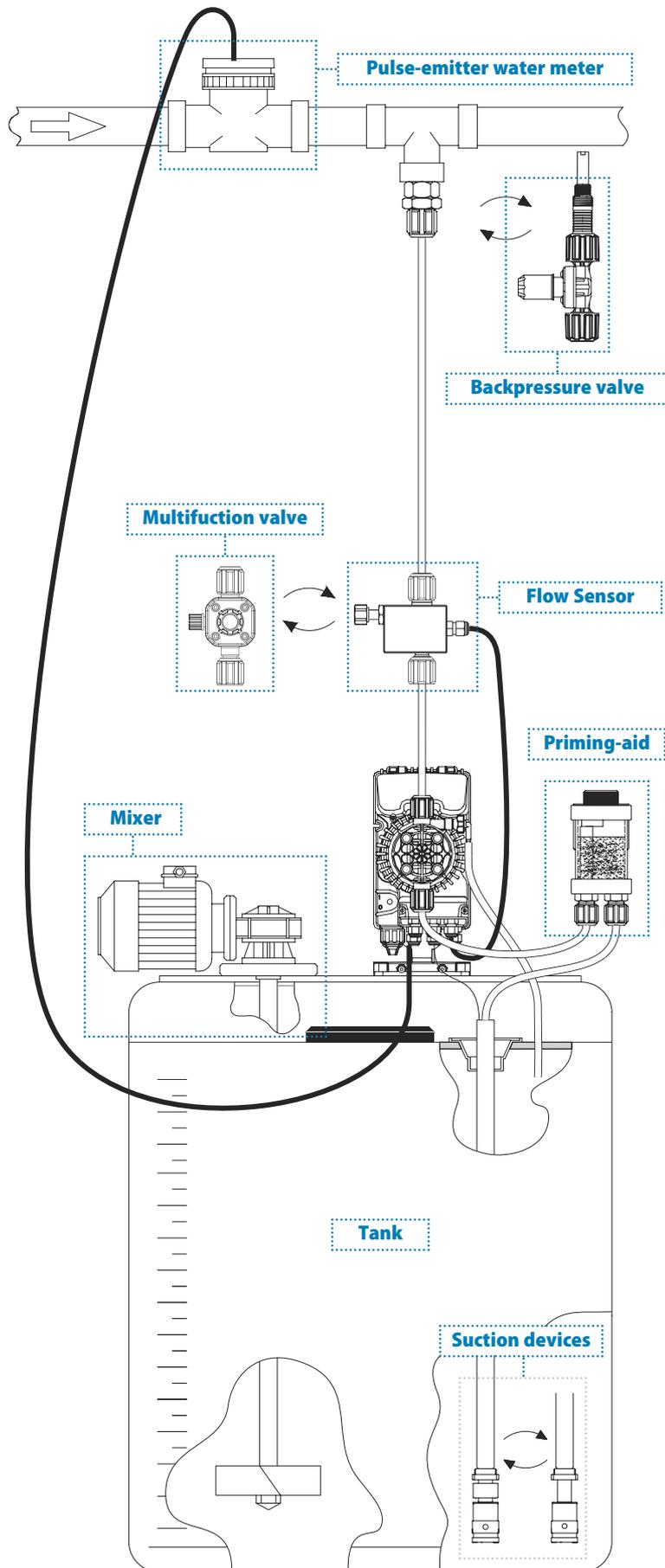
Installation Kit	
<b>H</b>	PVDF

Seals	
<b>0</b>	FPM
<b>1</b>	EPDM

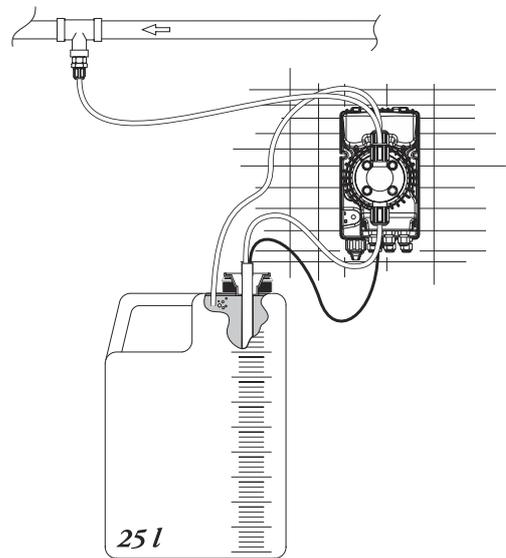
Options	
<b>000</b>	Standard

**AKL | 603 | N | H | H | 0 | 000**

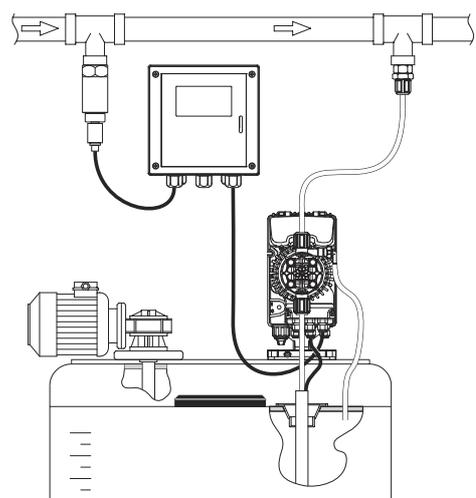
# Typical Installation



## Degassing head installation



## With control instrument



# Tekba Series

## Solenoid Dosing Pump

Tekba is a digital solenoid dosing pump, operating with a micro-processor to manage the dosing. It is featured by simple and reliable operation, including four models: EMS, EML, EMC and EMM.

### Features:

- Max pressure: 20bar;
- Max flow rate: 110L/H
- Pump head: PVDF

### Applications:

Urban water treatment & wastewater treatment, Cl<sub>2</sub> dosing, RO, food, drink and pharmacy.



## Compatible

PVDF pump head and ceramic ball valve as standard

- **PVDF** is suitable for almost all chemical used in the Industrial, Waste Water Treatment and potable Water applications
- The use of **Ceramic balls** as standard improves the pumping reliability and the chemical compatibility of the whole liquid end



## Reliable

Long life diaphragm tested to give 5 years working life

- The advanced design and manufacturing process allows the diaphragm to have a unique life expectancy
- Made of pure solid PTFE, the diaphragm is compatible with most chemicals
- The diaphragm has been tested over a period of 5 years giving superior results
- Routine diaphragm replacement is no longer a requirement



## Steady Dosing Performance

Stabilized Multi Power Supply 100÷240 Vac 50/60 Hz with reduced consumption

## Dosing model

The flow rate is adjustable manually or automatically (pulse or 4-20mA input)  
The pump head has a manual priming valve.

## Liquid end

Pump head	PVDF
Ball	Ceramic
Seal	FPM/EPDM
Diaphragm	PTFE

## Installation

Horizontally mounted  
Wall-mounted (optional)



**EMS** Manual control

Flow rate manually adjustable by control dial on the front panel, Power-on LED indicator, with indication of frequency percentage (P%) and stroke number (F)



**EML** Manual control with level control input

Flow rate manually adjustable by control dial on the front panel, Power-on LED indicator, with indication of frequency percentage (P%) and stroke number (F), level control input



**EMC** Automatic control (digital pulse signal input)

With operation status indication, level control input, have two dosing models:

- **Constant** The pump doses the rate selected with the button
- **Proportional** The pump doses proportionally to the digital pulse input signal



**EMM** Automatic control (4-20mA input)

With operation status indication, level control input, have two dosing models:

- **Constant** The pump doses the rate selected with the button
- **Proportional** The pump doses proportionally to 4-20mA current signal input

# Pumps identification

Solenoid diaphragm pump

Hydraulic diaphragm pump

Mechanical diaphragm pump & plunger pump

Version		
<b>EMS</b>	Flow rate by manual control	
<b>EML</b>	<b>Digital</b>	
<b>EMC</b>		Flow rate by manual control, with level control input
<b>EMM</b>		Flow rate by manual control Flow rate by automatic control: digital pulse signal input (water meter pulse signal), with level control input
	Flow rate by manual control Flow rate by automatic control: 4-20mA current signal input, with level control input	

Model	Pressure [bar]	Flow rate [l/h]	Stroke capacity [cc/stroke]	Ø Connections IN / OUT [mm]	Frequency max [stroke/min]	Consumption [W]	Weight [Kg]	Carton size (LxWxH)
<b>600</b>	20	2.5	0.35	4 / 6 suc 4 / 7 dis	120	20	3.9	285×250×210 mm
	18	3	0.42					
	14	4.2	0.58					
	8	7	0.97					
<b>603</b>	12	4	0.42	4 / 6	160	20	3.4	
	10	5	0.52					
	8	6	0.63					
	2	8	0.83					
<b>800</b>	16	7	0.38	4 / 6	300	40	4.4	
	10	10	0.55					
	5	15	0.83					
	1	18	1.00					
<b>803</b>	5	20	1.11	8 / 12	300	40	4.4	
	4	32	1.78					
	2	62	3.44					
	0.1	110	6.11					

### Stroke length adjustment

<b>N</b>	Single(frequency)
<b>M</b>	Double(frequency+length)

### Power supply

<b>N</b>	100-240Vac, 50/60Hz
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### Liquid end material

<b>H</b>	Pump head: PVDF	Ball: Ceramic	Diaphragm: PTFE
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### Installation kit

<b>P</b>	PVDF
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### Seals

<b>0</b>	FPM
<b>1</b>	EPDM

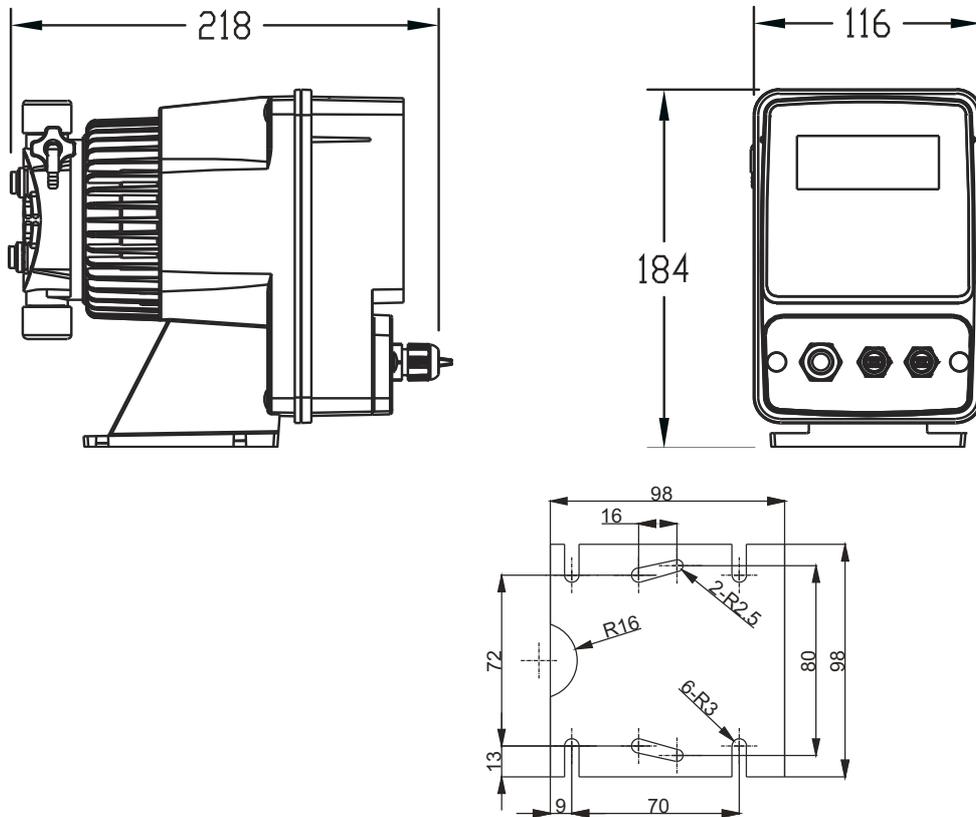
### Options

<b>6B00</b>	Option
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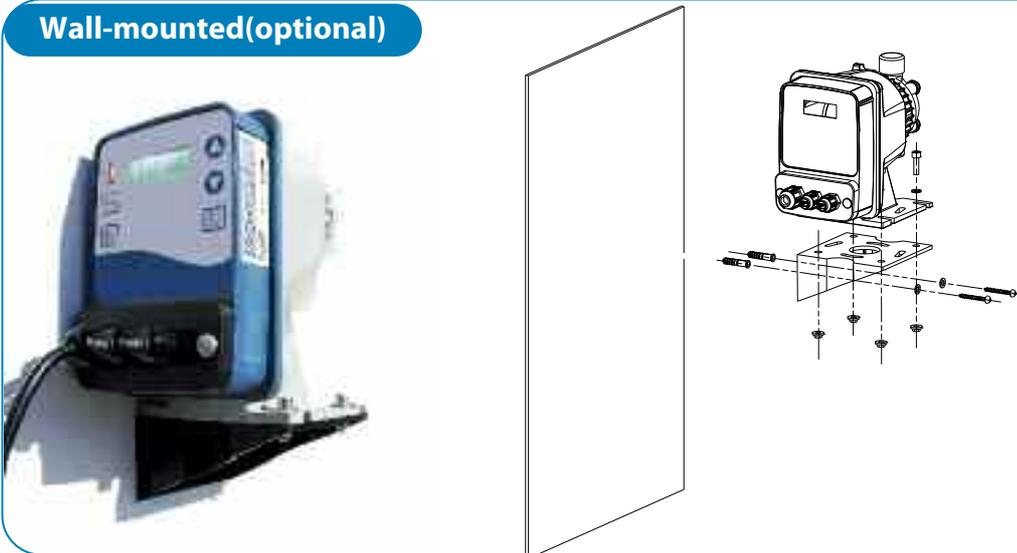
**EML | 603 | N | N | H | P | 0 | 6B00**

# Technical features

## Dimensional drawing



## Wall-mounted(optional)



## Installation kit

The pumps are supplied complete with the indispensable accessories for their correct installation as: Foot filter, injection valve, PE tube (delivery), PVC tube (suction).



Suction tube (PVC,4m)



Delivery tube (PE,2m)



Injection valve(PVDF) (G3/8"and G1/2")



Foot valve(PVDF)

# Kompact Series

Kompact is a simple solenoid dosing pump, operating with a micro-processor to manage the dosing.

Its external enclosure has an IP65, which guarantees a protection versus splashing water and aggressive environments.



## Dosing Mode

The pump head has a manual priming valve.

The flow rate is manually or automatically (by signal input) adjustable from 0 (pump stop) to 100% of the max flow rate. Moreover it is equipped with the low level alarm to stop or not the pump.

## Pumps Head

<b>BODY</b>	PVDF
<b>BALL VALVES</b>	Ceramic
<b>SEAT VALVE</b>	FPM/EPDM
<b>DIAPHRAGM</b>	PTFE

The parts in contact with the liquid have been chosen in order to guarantee perfect compatibility with most chemical normally in use.

## Long life diaphragm

Tested to give 5 years working life



- The advanced design and manufacturing process allows the diaphragm to have a unique life expectancy
- Made of pure solid PTFE, the diaphragm is compatible with most chemicals
- The diaphragm has been tested over a period of 5 years giving superior results
- Routine diaphragm replacement is no longer a requirement

## Wall-mounted

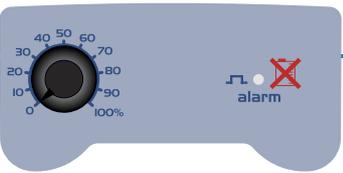
Kompact pump can be fixed on wall by fixing bracket provide with the pump or top of drums by the optional foot fixing bracket.

# Kompact Analogue version



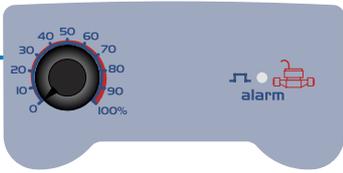
## AMS Manual control

Flow rate manually adjustable by control dial on the front panel, Power-on LED indicator



## AML Manual control with level control input

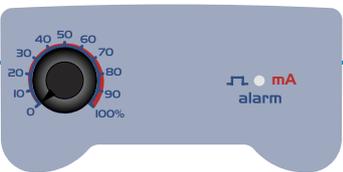
Flow rate manually adjustable by control dial on the front panel, Power-on LED indicator, level-control input, with two frequencies selection: 0-20% or 0-100%



## AMC Automatic control (digital pulse signal input)

Power-on LED indicator, with level control input, have two dosing models :

- **Constant**(switch in position C)      The pump doses the rate selected with the knob
- **Proportional 1: 1**(switch in position P)      The pump doses proportionally to the digital pulse signal input



## AMM Automatic control (4-20mA input)

Power-on LED indicator, with level control input, have two dosing models :

- **Constant**(switch in position C)      The pump doses the rate selected with the knob
- **Proportional**(switch in position P)      The pump doses proportionally to 4-20mA current signal input

## Installation Kit

The pumps are supplied complete with the indispensable accessories for their correct installation as:

Foot filter, Screws, Fixing bracket, Injection valve, 2m PE tube (delivery), 4 m PVC tube (suction), Seal in FPM and EPDM



Wall-mounted bracket



PVC Suction tube



PE Delivery tube



Injection valve (PVC)  
(G3/8", G1/2")



Foot valve (PVC)

vertical-mounted bracket



## Technical features

Model	Pressure [bar]	Flow rate [l/h]	Stroke capacity [cc/stroke]	Ø Connections IN / OUT [mm]	Frequency max [stroke/min]	Weight [Kg]	Carton size (LxWxH)
200	10	3	0.31	4 / 6	160	2.4	285x185x180
	8	5	0.52				
	2	9	0.93				
201	7	1	0.10	4 / 6	160	2.4	285x185x180

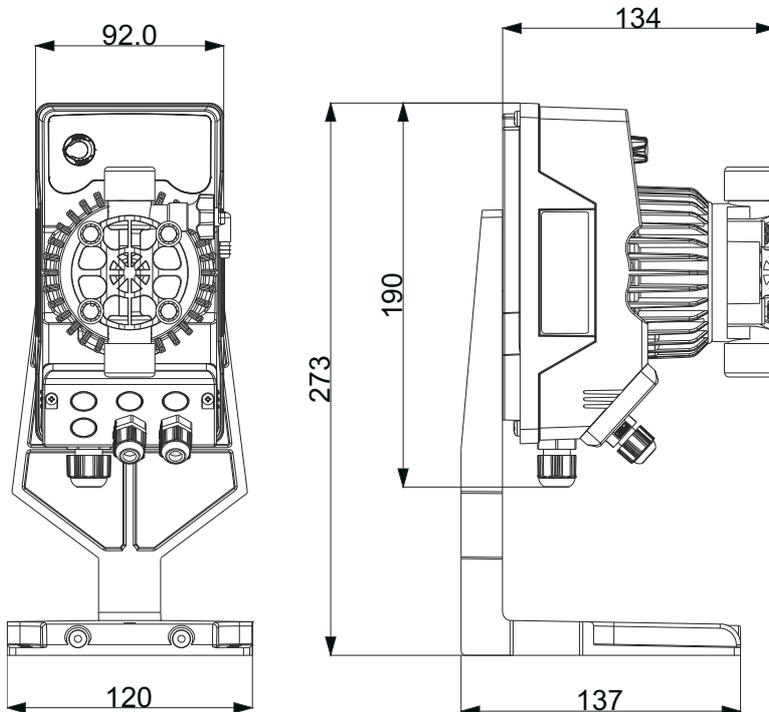
  

Liquid end	Type	Pump head	Ball	Seal	Diaphragm
	P	PVDF	Ceramic	FPM/EPDM	PTFE

Enclosure	Material	Protection class	Power supply
	PP	IP65	

### DIMENSIONAL DRAWINGS



### TECHNICAL FEATURES

<b>FLOW RATES</b>	5 l/h @ 8 bar 3 l/h @ 10 bar 9 l/h @ 2 bar
<b>POWER SUPPLY</b>	AMS:230Vac, 50Hz;AML/AMM/AMM: 100-240Vac,50/60Hz
<b>STROKE RATE</b>	160 strokes/minute
<b>ENCLOSURE</b>	PP protection degree IP65
<b>INSTALLATION KIT</b>	Included

# Komba Series

## Solenoid Dosing pump

Komba is a simple solenoid dosing pump, operating with a micro-processor to manage the dosing, it is easy to operate with stable flow rate. It has four models: DMS, DML, DMC and DMM.

### Main features:

Max pressure: 10bar;

Max flow rate: 9L/H

Pump head: PVDF

### Applications:

Urban water treatment and waste water treatment, dosing of chlorine dioxide, reverse osmosis, food, beverage and pharmacy, etc.



## Compatible

PVDF pump head and ceramic ball valve as standard

- **PVDF** is suitable for almost all chemical used in the Industrial, Waste Water Treatment and potable Water applications
- The use of **Ceramic balls** as standard improves the pumping reliability and the chemical compatibility of the whole liquid end



## Reliable

Long life diaphragm tested to give 5 years working life

- The advanced design and manufacturing process allows the diaphragm to have a unique life expectancy
- Made of pure solid PTFE, the diaphragm is compatible with most chemicals
- The diaphragm has been tested over a period of 5 years giving superior results
- Routine diaphragm replacement is no longer a requirement



## Dosing model

The flow rate is adjustable manually or automatically (pulse or 4-20mA input);

DML, DMC and DMM have level control input;

The pump head has a manual priming valve.

## Liquid end

Pump head	PVDF
Ball	Ceramic
Seal	FPM/EPDM
Diaphragm	PTFE

## Installation

Horizontally mounted

Wall-mounted (optional)

# Komba Series

Solenoid diaphragm pump



**DMS** Manual control

Flow rate manually adjustable by control dial on the front panel, Power-on LED indicator, with indication of frequency percentage(P%) and stroke number(F)

Hydraulic diaphragm pump



**DML** Manual control with level control input

Flow rate manually adjustable by control dial on the front panel, Power-on LED indicator, with indication of frequency percentage (P%)and stroke number(F), level control input

Mechanical diaphragm pump& plunger pump



**DMC** Automatic control(digital pulse signal input)

With operation status indication, level control input, have two dosing models:

- **Constant** The pump doses the rate selected with the button
- **Proportional** The pump doses proportionally to the digital input signal



**DMM** Automatic control (4-20mA input)

With operation status indication, level control input, have two dosing models: :

- **Constant** The pump doses the rate selected with the button
- **Proportional** The pump doses proportionally to 4-20mA current signal

# Pumps identification

Version	
<b>DMS</b>	Flow rate by manual control
<b>DML</b>	Flow rate by manual control, with level control input
<b>DMC</b>	Flow rate by manual control Flow rate by automatic control: digital pulse signal input (water meter pulse signal); with level control input
<b>DMM</b>	Flow rate by manual control Flow rate by automatic control: 4-20mA current signal input; with level control input

Model	Pressure [bar]	Flow rate [L/H]	Stroke capacity [cc/stroke]	Ø Connections IN / OUT [mm]	Frequency max [stroke/min]	Consumption [W]	Weight [Kg ]	Carton size (LxWxH)
<b>200</b>	10	3	0.31	4 / 6	160	14	2.5	280×205×180
	8	5	0.52					
	2	9	0.93					
<b>201</b>	7	1	0.10					

Power supply	
<b>A</b>	DMS: 240Vac, 50Hz
<b>N</b>	DML,DMC and DMM: 100-240Vac, 50/60Hz

Liquid end material		
<b>H</b>	Pump head: PVDF	Ball: Ceramic Diaphragm: PTFE

Installation kit	
<b>P</b>	PVDF

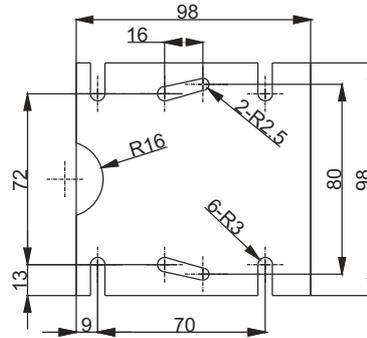
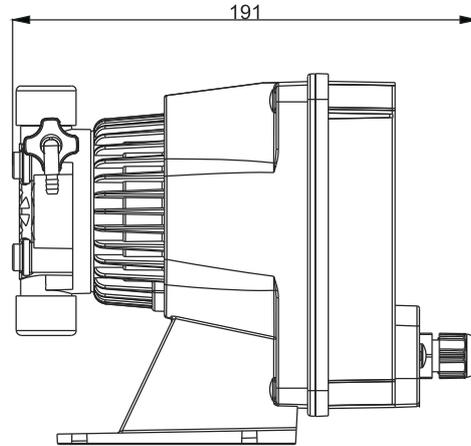
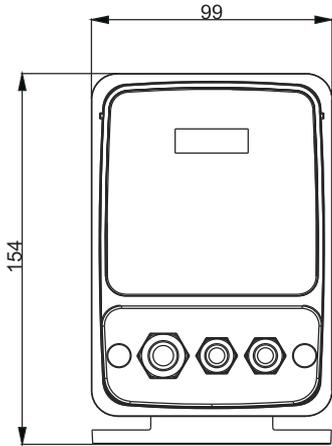
Seal	
<b>0</b>	FPM
<b>1</b>	EPDM

Options	
<b>800</b>	option

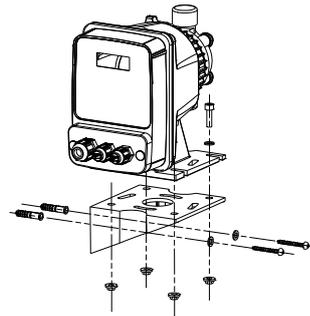
**DML | 200 | N | H | P | 0 | 800**

# Technical features

## Dimensional drawing

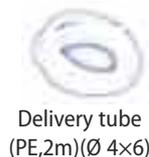
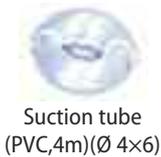


## Wall-mounted(optional)



## Installation kit

The pumps are supplied complete with the indispensable accessories for their correct installation as: Foot filter, injection valve, PE tube (delivery), PVC tube (suction)



# Invikta Series

Invikta is a simple yet reliable series of micro-processor based solenoid dosing pumps.

Ideal applications are: OEMs, Swimming Pools, Car Wash, Cooling Towers, RO Systems and many other applications.



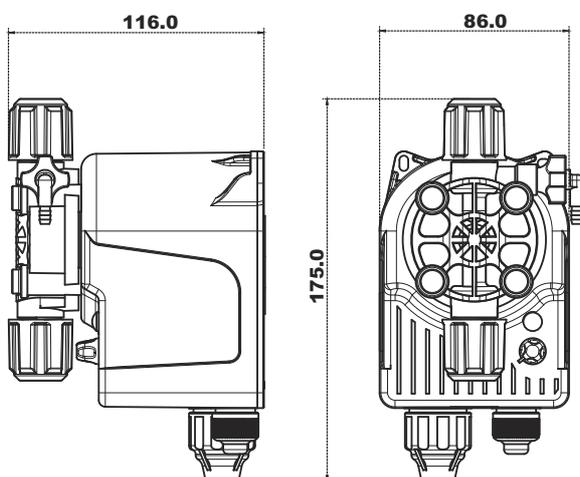
## KCL Costant dosage

Analog dosing pump with constant flow rate, manually adjustable by control dial on the front panel, with level control input. Power-ON led indicator.

## Technical specifications

Liquid end material			Model	635		
Head Type	VE	VF	Pressure [bar]	7	5	2
Body Pump	PVC		Flow rate [l/h]	3	5	6
Balls	Ceramic		Stroke/min	140		
Seals	EPDM	FPM	cc/stroke	0.36	0.60	0.71
Diaphragm	PTFE		Ø Connections IN / OUT [mm]	4 / 6		
			Power Consumption	100-240Vac, 50/60Hz, 12W		
			Weight [Kg]	2,4		
			Carton size (LxWxH) [mm]	285x185x180		

### DIMENSIONAL DRAWINGS



## Installation Kit



Wall-mounted bracket



PVC Suction tube



PE Delivery tube



Injection valve (PVC)  
(G3/8", G1/2")



Foot valve (PVC)

# Tork Series

## Hydraulic Double Diaphragm Metering pumps

A line hydraulic diaphragm metering pumps designed according to the **API 675 Standards**, It includes three subseries: YN, TN and HN.

■ FLOW RATE	up to 9000 l/h
■ MAX PRESSURE	up 200 bar
■ FLUID TEMPERATURE	-10-70°C
■ CONTACT MATERIALS	SS316L; PP; PVDF
■ COMPLIANCE	STANDARD ACCORDING TO API 675



Tork series hydraulic diaphragm dosing pumps are designed in compliance with API 675 Standards; the conformity to the API Standards implies a "heavy duty" design, high safety and severe controls of the performances during the tests. The broad variety of heads execution offers a wide selection of dosing pumps to cover practically any application needs. In addition the full compliance with the ATEX European Directive gives the possibility to install these pumps in classified areas too.

### Main characteristics:

- Low noise integral gearbox, worm type, oil bath lubricated
- Reduced energy consumption based on low friction rolling bearings design
- Micrometric stroke length adjustment both manually and/or automatically actuated.
- Automatic stroke length variation by electrical servomotor or frequency converter
- Linearity and repeatability in compliance with API 675 Standards.
- Easy "on field" installation of electrical servomotor on manual stroke adjustment mechanism.
- can be equipped with explosive-proof motor and frequency conversion motor.



### Venting system

Aside from guaranteeing automatic venting during operation, the venting system also facilitates the pump priming by favouring the air purge by means of a manual action.



### Pressure relief valve

Protects the pump against unexpected overpressure.



### 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.

## YN, TN, HN: Hydraulic double diaphragm heads

The ideal solution for applications requiring high levels of operational safety and reliability

- Zero leakage; can dose toxic, corrosive and other hazardous liquids, for which the absence of leaks is fundamental
- Double diaphragm, double protection; if one of the two diaphragms is damaged, the protection system immediately signals the anomaly; the pump is nevertheless permitted to continue to operate, thereby preventing immediate downtime
- Flexibility of use; the PTFE diaphragms are compatible with a vast assortment of liquids
- Solid suspensions; the diaphragm's proper positioning is ensured by a mechanical system which does not require the use of perforated shields on the process side, thereby allowing for liquids containing solid suspensions to be pumped.
- Construction materials; the parts in the standard configuration that make contact with the liquid are made from AISI 316L stainless steel, PP and PVDF.

### Mechanical refilling system

Maintains a constant level of the hydraulic fluid, thereby guaranteeing maximum precision and repeatability. Keeping also under control the deformation of diaphragm thereby increasing its duration.

### Double diaphragm with rupture detector



In the event of a rupture of one of the two diaphragms, the detector activates either a local visual alarm or a pressure switch. The second diaphragms ensure the continued operation of the pump. This allows for scheduled maintenance.



### Flow Rate adjustment

- Easy to handle knob with high visibility nonius for the best flow adjustment.
- Optionally automatic variation by electrical actuators **AKTUA**.

The electrical actuators **AKTUA** were designed to replace the manual adjusting device of the flow, on the pump, with an automatic system, remotely controllable, which acts on the length of the stroke of the pump, directly in the field.

- Internal display 4-digit, 7-segment display.
- Calibration can also be executed with system running.
- Available in standard version for installation in areas not classified, or ATEX compliant for installation in hazardous areas.



## Applications

Water treatment and Industrial sectors

- Municipalities
- Wastewater
- Chemical
- Food & Beverages
- Detergents
- Power Generation
- Environment
- Petrochemical
- Pharmaceutical
- Paper
- Textile

## Accessories

- Flow rate calibration pots
- Pulsation dampers
- Safety valves
- Back pressure valves

## Options

- Flanged connections
- Heated or cooled heads
- Transmission of the diaphragm rupture signal

## Tork Y NO

LIQUID END MATERIAL		PP/PVC				
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED Strokes/min	FLOW RATE L/h	PRESSURE Bar	CONNECTION Suc/Dis (BSPP)	MOTOR kW
12	10	47	2,8	12	1/2" F	0,18
15		70	6,5			
25		93	25			
35		186	97.3			
LIQUID END MATERIAL		PVDF				
12	10	47	2,8	20	1/2" F	0,18
15		70	6,5			
25		93	25	19		
35		186	97.3			
LIQUID END MATERIAL		SS316L				
12	10	47	2,7	40	1/4" F	0,18
15		70	6,5			
25		93	25	39		
35		186	97.3			

## Nexa Y N1

LIQUID END MATERIAL		PP/PVC				
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED Strokes/min	FLOW RATE L/h	PRESSURE Bar	CONNECTION Suc/Dis (BSPP)	MOTOR kW
30	25	117	113	12	1/2" F	1,10
50		93	254			
70		117	501		1" F	
		186	996			
		235	1258			
LIQUID END MATERIAL		PVDF				
30	25	117	111	20	1/2" F	1,10
50		93	254			
70		117	501	12	1" F	
		186	996			
		235	1258			
LIQUID END MATERIAL		SS316L				
30	25	117	106	40	1/2" F	1,10
50		93	254	24	3/4" F	
70		117	501	12	1" F	
		186	996			
		235	1258			

## Tork Y N2

LIQUID END MATERIAL		PP/PVC				
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED Strokes/min	FLOW RATE L/h	PRESSURE Bar	CONNECTION Suc/Dis (BSPP)	MOTOR kW
70	35	117	865	12	1" F	2,20
90		93	1200	11	1 1/2" F	
120		2065	7			
		117	2610	6		
LIQUID END MATERIAL		PVDF				
70	35	117	865	20	1" F	2,20
90		93	1200	11	1 1/2" F	
120		2065	7			
		117	2610	6		
LIQUID END MATERIAL		SS316L				
70	35	117	865	20	1" F	2,20
90		93	1200	11	2" F	
120		2065	7			
		117	2610	6	1 1/2" F	

# Technical Features

## Tork Y N3

LIQUID END MATERIAL		SS316L				
PLUNGER DIAMETER	STROKE LENGTH	MAX. SPEED	FLOW RATE	PRESSURE	CONNECTION	MOTOR
		Strokes/min	L/h	Bar	Suc/Dis (BSPP)	kW
130	50	78	2600	10	3" F	5,5
		117	3900			7,5

## Tork Y N4

LIQUID END MATERIAL		SS316L				
PLUNGER DIAMETER	STROKE LENGTH	MAX. SPEED	FLOW RATE	PRESSURE	CONNECTION	MOTOR
		Strokes/min	L/h	Bar	Suc/Dis (BSPP)	kW
130	70	117	6000	10	3" F	18,5
		145	7500			

high pressure up to 120 bar

## Tork TN

LIQUID END MATERIAL		SS316L					
TYPE	PLUNGER DIAMETER	STROKE LENGTH	MAX. SPEED	FLOW RATE	PRESSURE	CONNECTION	MOTOR
			Strokes/min	L/h	Bar	Suc/Dis (BSPP)	kW
N0	12	10	93	4,5	120	1/4" F	0,18
	20		70	11,7	57		
N1	15	25	117	26,5	120	1/4" F	1,10
	20			47	68	1/2" F	
	30			99	80	3/4" F	
N2	20	35	117	70	120	1/4" F	2,20
	25			94	80	1/2" F	
	35		93	162	80	3/4" F	
			117	202			

high pressure up to 120 bar

## Tork HN

LIQUID END MATERIAL		SS316L					
TYPE	PLUNGER DIAMETER	STROKE LENGTH	MAX. SPEED	FLOW RATE	PRESSURE	CONNECTION	MOTOR
			Strokes/min	L/h	Bar	Suc/Dis (BSPP)	kW
N1	10	25	117	10	200	1/4" F	1,10
	15			24			
N2	15	35	117	35,2	200	1/4" F	2,20
	20			67			

# Stark Series

## Hydraulic diaphragm Metering pumps

A line hydraulic diaphragm metering pumps designed according to the **API 675 Standards**, It includes two subseries: SCB0 and SCB1.

■ FLOW RATE	up to 660 l/h
■ MAX PRESSURE	up 124 bar
■ FLUID TEMPERATURE	-10-70°C
■ CONTACT MATERIALS	SS316L; PVDF; PVC
■ COMPLIANCE	STANDARD ACCORDING TO API 675



## Mechanisms

**Mechanical return** type available in various sizes

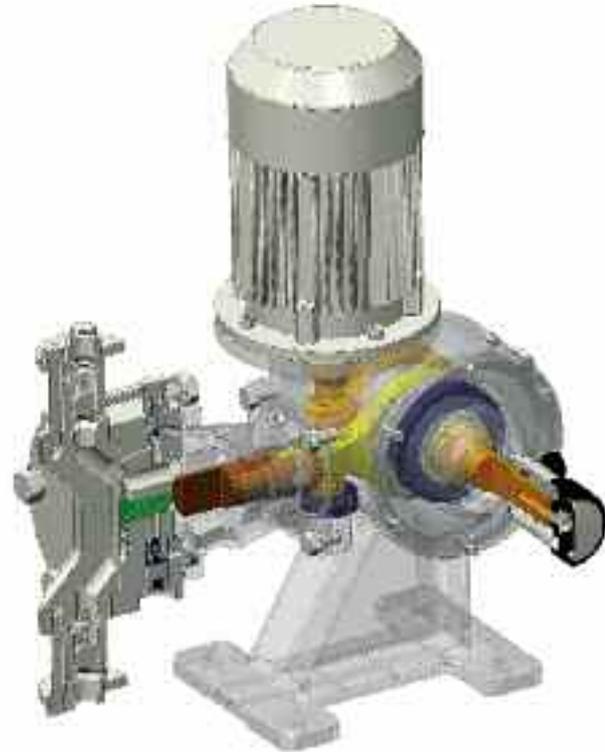
### Main characteristics:

- Internal worm gearbox, oil bath lubricated with low noise emissions
- Rotating parts on bearings to minimise power consumption
- High precision stroke adjustment, both manual and by means of an electric actuator

## Hydraulic diaphragm heads

The ideal solution for applications requiring high levels of operational safety and reliability

- Zero leakage; hermetic construction for dosing toxic, corrosive and other hazardous liquids, for which the absence of leaks is fundamental
- Protection against external pollutants which could contaminate the liquid being pumped
- Flexibility of use; the PTFE diaphragms are compatible with a vast assortment of liquids



### Mechanical refilling system

Maintains a constant level of the hydraulic fluid, thereby guaranteeing maximum precision and repeatability. Keeping also under control the deformation of diaphragm thereby increasing its duration.



## Venting system

Aside from guaranteeing automatic venting during operation, the venting system also facilitates the pump priming by favouring the air purge by means of a manual action.



## Pressure relief valve

Protects the pump against unexpected overpressure.



## 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.



## Flow Rate adjustment

- Easy to handle knob with high visibility nonius for the best flow adjustment.
- Optionally automatic variation by electrical actuators **AKTUA**.

The electrical actuators **AKTUA** were designed to replace the manual adjusting device of the flow, on the pump, with an automatic system, remotely controllable, which acts on the length of the stroke of the pump, directly in the field.

- Internal display 4-digit, 7-segment display.
- Calibration can also be executed with system running.
- Available in standard version for installation in areas not classified, or ATEX compliant for installation in hazardous areas.



## Applications

Water treatment and Industrial sectors

- Municipalities
- Wastewater
- Chemical
- Food & Beverages
- Detergents
- Power Generation
- Environment
- Petrochemical
- Pharmaceutical
- Paper
- Textile

## Accessories

- Flow rate calibration pots
- Pulsation dampers
- Safety valves
- Back pressure valves

## Stark C B0

LIQUID END MATERIAL		PVC				
PLUNGER DIAMETER	STROKE LENGTH	MAX. SPEED	FLOW RATE	PRESSURE	CONNECTION	MOTOR
		Strokes/min	L/h	Bar	Suc/Dis (BSPP)	kW
12	10	112	6	15	1/2" F	0,18
		140	8			0,25
		186	11			0,18
20		70	12			0,18
		112	18			0,25
		186	29			0,18
30		93	34			0,18
		140	52			0,18
35		140	76			0,18
		186	97			0,25

LIQUID END MATERIAL		PVDF				
PLUNGER DIAMETER	STROKE LENGTH	MAX. SPEED	FLOW RATE	PRESSURE	CONNECTION	MOTOR
		Strokes/min	L/h	Bar	Suc/Dis (BSPP)	kW
12	10	112	6	20	1/2" F	0,18
		140	8			0,25
		186	11			0,18
20		70	12			0,18
		112	18			0,25
		186	28			0,18
30		93	33			0,18
		140	52			0,18
35		140	74			0,18
		186	96			0,25

LIQUID END MATERIAL		SS316L				
PLUNGER DIAMETER	STROKE LENGTH	MAX. SPEED	FLOW RATE	PRESSURE	CONNECTION	MOTOR
		Strokes/min	L/h	Bar	Suc/Dis (BSPP)	kW
12	10	112	3	124	1/4" F	0,18
		140	4			0,25
		186	6			0,18
20		70	9	40		0,18
		112	15			0,25
		186	25			0,18
30		93	27	27		0,18
		140	46			0,18
35		140	64	20		0,18
		186	86			0,25

## Stark C B1

LIQUID END MATERIAL		PVC				
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE	PRESSURE	CONNECTION	MOTOR
		Strokes/min	L/h	Bar	Suc/Dis (BSPP)	kW
30	25	117	<b>110</b>	15	1/2" F	1,10
		186	<b>175</b>			1,50
40		78	<b>130</b>			0,75
		117	<b>200</b>			1,10
50		235	<b>420</b>			1,50
		93	<b>228</b>			1,10
		117	<b>300</b>			1,10
		186	<b>500</b>			1,50
		235	<b>650</b>			1,50

LIQUID END MATERIAL		PVDF				
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE	PRESSURE	CONNECTION	MOTOR
		Strokes/min	L/h	Bar	Suc/Dis (BSPP)	kW
30	25	117	<b>110</b>	20	1/2" F	1,10
		186	<b>170</b>			1,50
40		78	<b>125</b>			0,75
		117	<b>200</b>			1,10
50		235	<b>415</b>			1,50
		93	<b>225</b>			1,10
		117	<b>295</b>			1,10
		186	<b>500</b>			1,50
		235	<b>640</b>			1,50

LIQUID END MATERIAL		SS316L							
PLUNGER DIAMETER	STROKE LENGHT	MAX. SPEED	FLOW RATE	PRESSURE	CONNECTION	MOTOR			
		Strokes/min	L/h	Bar	Suc/Dis (BSPP)	kW			
15	25	93	<b>18</b>	124	1/4" F	1,10			
20		93	<b>35</b>				1,50		
		117	<b>44</b>						
		235	<b>90</b>						
30		62	<b>63</b>				68	3/4" F	0,75
		117	<b>110</b>						1,10
		186	<b>170</b>	1,50					
40		78	<b>130</b>	35	0,75				
		117	<b>200</b>		1,10				
		186	<b>330</b>		1,50				
		235	<b>420</b>						
50		62	<b>150</b>	24	1" F	0,75			
		93	<b>240</b>			1,10			
		117	<b>310</b>			1,50			
		186	<b>510</b>						
		235	<b>660</b>						

# Kosmo Series

## MM2

### Mechanical-return Diaphragm Metering Pump

MM2 pumps are electric motor-driven pumps with mechanical diaphragm liquid ends and mechanical return.

#### FEATURES

■ Flow rate	80 - 2,300 L/H
■ Max pressure	10 BAR
■ Stroke rate	43/86/131/175 Stroke/minute
■ Stroke length	7/8/9/15 mm
■ Diaphragm diameter	124/140/157/179 mm
■ Motor	0.55/0.75/1.1KW
■ Material of pump head	SS 316L, PVC, PVDF
■ Max temperature	40°C



#### SPECIFICATIONS

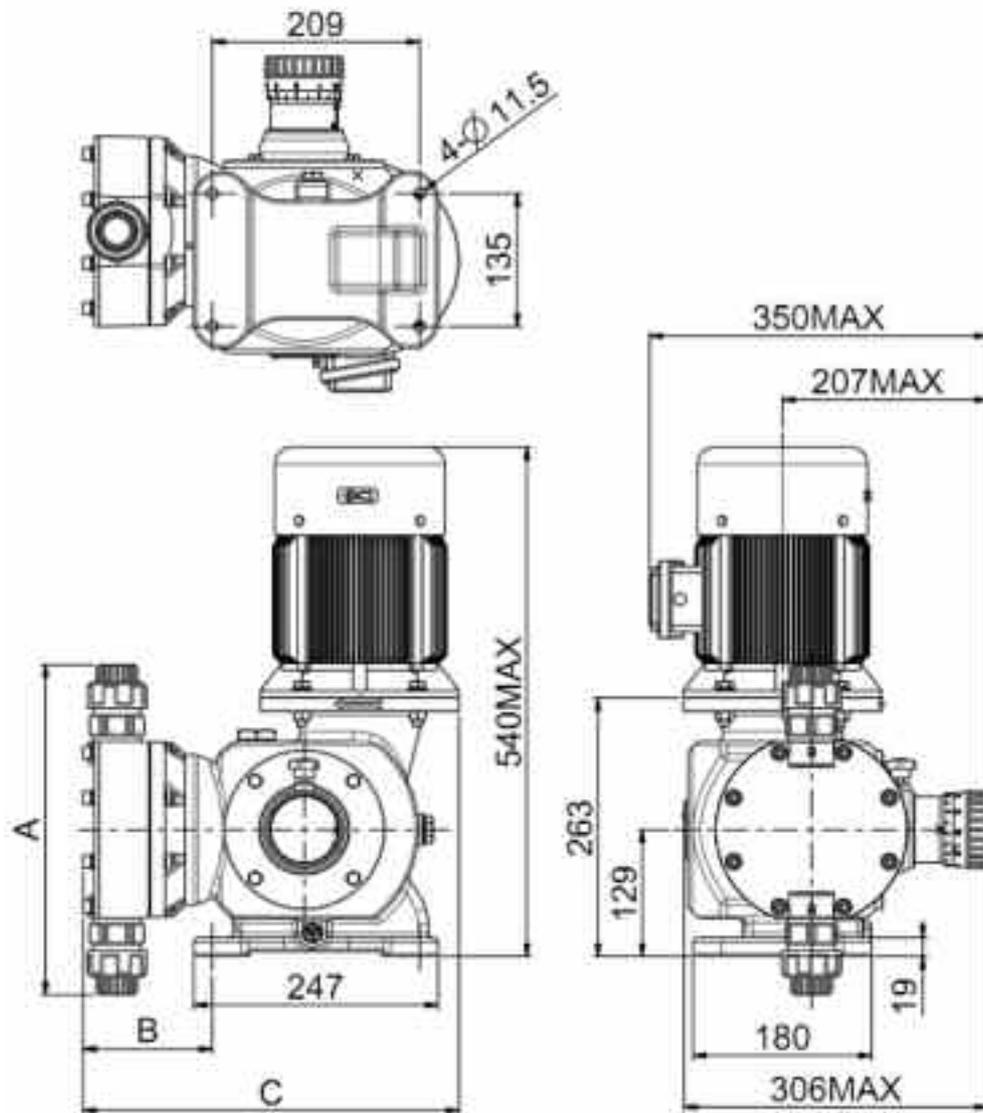
Model	Diameter [mm]	Stroke length [mm]	Stroke rate [stroke/min]	Flow rate [L/H]	Max pressure [bar]	Connections			Motor [kw] Pole	Gross weight [kg] SS316L PVC PVDF	Wooden box size (LxWxH) [mm]	
						SS316L	PVC	PVDF				
MM2F124D**C40600	124	7	43	80	10	G3/4			0.55/4	56	700x500x750	
MM2F124E**C40600			86	180								
MM2F124F**C40600			131	250								
MM2F124G**C40600			175	350								
MM2G124G**C40600	8	450	7	G1				60				
MM2F140G**C40600	7	500										
MM2G140G**C40600	8	600	4	G1 1/2				0.75/4	68			
MM2H157F**C40600	157	9								131		720
MM2H157G**C40600										175		1,000
MM2H179G**D40600	179	15								131		1,200
MM2I179F**D40600			175	1,600								
MM2I179G**E40600			175	2,300								

1.\*\* refers to option of pump head material : SS316L(21/24);PVC(31/34);PVDF(41/44)

2. With exception to standard motor, it is also can be equipped with frequency-conversion motor or explosive-proof motor.

3. Test with water @ 20°C @ 50 Hz;Flow rate values with motor at 50Hz. Multiply by 1.2 for 60 Hz

## INSTALLATION DRAWING



pump head Material	Diameter=124			Diameter=140			Diameter=157			Diameter=179						
	Connection	A	B	C	Connection	A	B	C	Connection	A	B	C				
PVC	DN20	293	123	372	DN25	316	129	377	DN25	334	130	379	DN40	424	148	395
PVDF	G3/4" F	293	123	372	G1" F	316	129	377	G1" F	334	130	379	G1 1/2" F	424	148	395
SS316L	G3/4" F	216	108	357	G1" F	251	130	378	G1" F	295	132	381	G1 1/2" F	382	160	407

## LIQUID END MATERIALS

Material	Standard		
	21/24	31/34	41/44
Pump head	SS316L	PVC	PVDF
Diaphragm	PTFE		
Seal	FPM/EPDM		
Ball	SS316L	Ceramic	
Ball Seat		PTFE	

# Kosmo Series

## MM1

### Mechanical-return Diaphragm Metering Pump

Featuring the same distinctive specs of MM2 series, the MM1 range is the ideal choice for any application where both industrial pump design and fine dosing are required.

#### FEATURES

■ Flow rate	3 - 530 L/H
■ Max pressure	12 bar
■ Stroke rate	58/78/116/156 Stroke/minute
■ Stroke length	2/4/6.4/7.4mm
■ Diaphragm diameter	65/96/124/140mm
■ Motor	0.25/0.37KW
■ Material of pump head	SS 316L /PVC /PVDF
■ Max temperature	40°C



#### SPECIFICATIONS

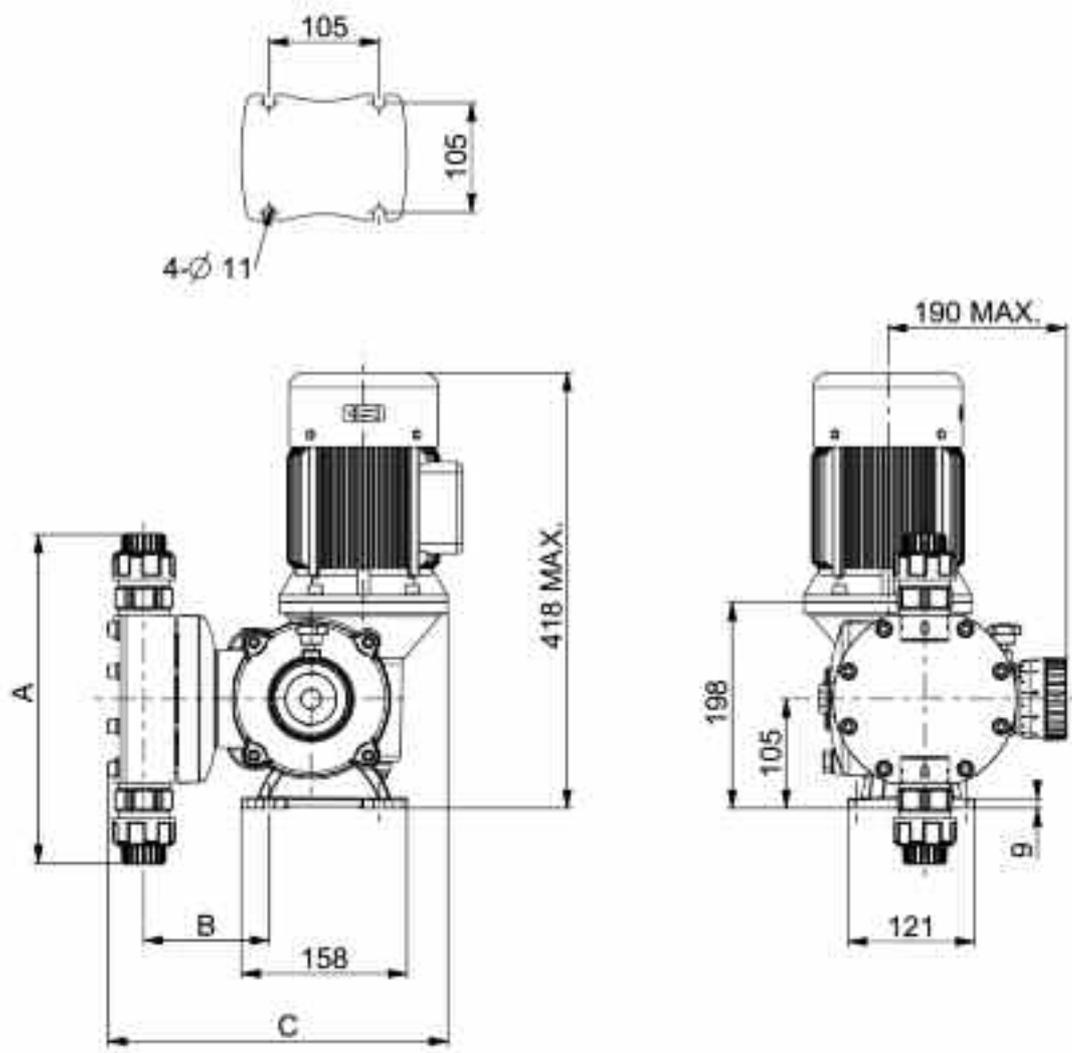
Model	Diameter [mm]	Stroke length [mm]	Stroke rate [stroke/min]	Flow rate [L/H]	Max pressure [bar]	Connections			Motor [kw] Pole	Gross weight [kg] SS316L PVC PVDF	Carton size (LxWxH) [mm]
						SS316L	PVC	PVDF			
MM1A065A**A40600	65	2	58	3.0	12	G1/4	8*12 PE Hose	0.25/4	16	450x300x550	
MM1A065B**A40600			78	4.5							
MM1A065C**A40600			116	9							
MM1A096C**A40600	96	4	116	22	10	G3/8	0.37/4	16			
MM1C096B**A40600			78	53							
MM1C096C**B40600			116	85							
MM1C096B**B20600	96	4	156	115	7	G3/8	0.37/2	16			
MM1D124B**B40600			78	170							
MM1D124C**B40600			116	242							
MM1D124B**B20600	124	6.4	156	340	5	G3/4	0.37/4	20			
MM1E140C**B40600			116	400							
MM1E140B**B20600			156	530							
MM1E140C**B40600	140	7.4	116	400	5	G1	0.37/4	20			
MM1E140B**B20600			156	530							

1.\*\* refers to option of pump head material : SS316L(21/24);PVC(31/34);PVDF(41/44)

2. With exception to standard motor, it is also can be equipped with frequency-conversion motor or explosive-proof motor.

3. Test with water @ 20°C @ 50 Hz;Flow rate values with motor at 50Hz. Multiply by 1.2 for 60 Hz

## INSTALLATION DRAWING



pump head Material	Diameter=65mm			Diameter=96mm			Diameter=124mm			Diameter=140mm						
	Connection	A	B	C	Connection	A	B	C	Connection	A	B	C	Connection	A	B	C
PVC	8x12	166	104	303	DN10	222	108	301	DN20	293	118	322	DN25	316	119	323
PVDF	8x12	166	104	303	G3/8"F	222	108	301	G3/4"F	293	118	322	G1"F	316	119	323
SS316L	G1/4"F	175	108	294	G3/8"F	167	107	293	G3/4"F	216	113	306	G1"F	251	120	319

## LIQUID END MATERIALS

Material	Standard		
	21/24	31/34	41/44
Pump head	SS316L	PVC	PVDF
Diaphragm	PTFE		
Seal	FPM/EPDM		
Ball	SS316L	Ceramic	
Ball Seat		PTFE	

# MS1 Series

## Mechanical Diaphragm Metering pumps

MS1 pumps are mechanical diaphragm metering pumps featuring a spring return mechanism in an aluminium housing.

### FEATURES

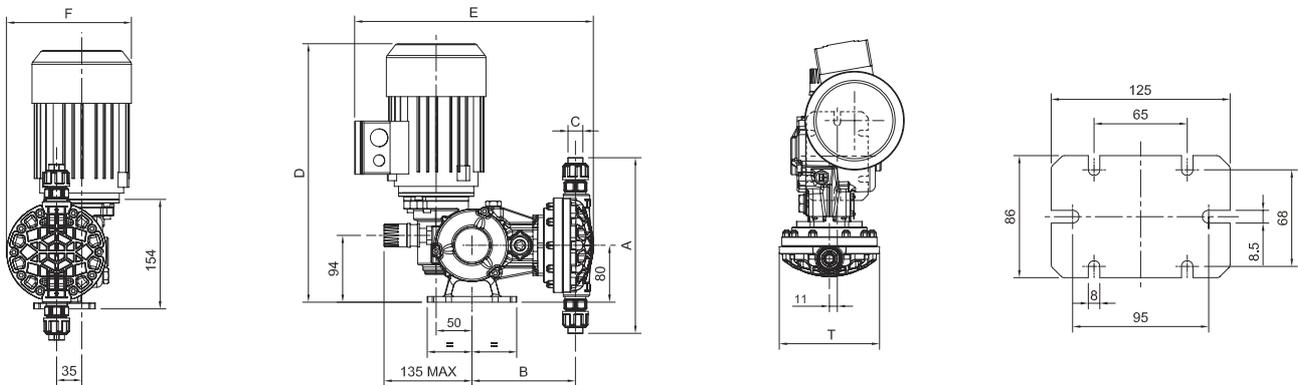
■ FLOW RATE	from 5,5 to 1,200 L/h
■ MAX PRESSURE	10 bar
■ STROKE RATE	58-78-116-232 strokes/minute
■ DIAPHRAGM DIAMETER	from 64 to 165 mm
■ MOTOR	standard 0.18-0.25-0.37-0.55 Kw (IP 55)
■ STROKE LENGTH	2 mm – 4 mm – 6 mm



### TECHNICAL FEATURES

MODEL	DIAPHRAGM DIAMETER [mm]	STROKE LENGTH [mm]	STROKES RATE [Strokes/min]	FLOW RATE [L/h]	MAX PRESSURE [bar]		CONNECTIONS		MOTORS [kW]	WEIGHT [Kg]		CARTON SIZE (LxWxH) (mm)		
					SS316L	PVC PVDF/PP	SS316L	PVC PVDF/PP		SS316L	PVC PVDF/PP			
MS1A064A	64	2	58	5,5	10	10	1/4 GF	1/4 GF DN15	0.18(A)	15	13	430x280x530		
MS1A064B			78	8										
MS1A064C			116	11										
MS1A094A	94		58	20			3/8 GF	3/8 GF DN15		0.25(B)	16		14	
MS1A094B			78	26										
MS1A094C			116	40										
MS1B108A	108	4	58	60	3/8 GF	3/8 GF DN15	0.37(C)	19	16					
MS1B108B			78	80										
MS1B108C			116	120										
MS1C138A	138	6	58	155	7	7		3/4 GF	3/4 GF	0.37(C)	23		18	590x400x550
MS1C138B			78	220										
MS1C138C			116	310										
MS1C165A	165		58	230	5	5	1"GF	1"GF	0.55(W)		27	21		
MS1C165B			78	330										
MS1C165C			116	530									4	
MS1C138Q	138	232	750	4.5	4.5	1"GF	1"GF	25		20				
MS1C165Q	165	232	1200	2	2			29		23				

DIMENSIONAL DRAWINGS



LIQUID END MATERIAL	PLUNGER DIAMETER [mm]	A [mm]	B [mm]	C [BSP]	T [mm]	THREE-PHASE					SINGLE-PHASE				
						MOTORS [kw]	MOTOR SIZE	D [mm]	E [mm]	F [mm]	MOTORS [kw]	MOTOR SIZE	D [mm]	E [mm]	F [mm]
SS316L (21)	64	192	144	1/4" f	98	0.18	63 B14	333	321	146	0.25	71 B14	371	343	155
	94	172	146	3/8" f	118	0.25	71 B14	371	335	165	0.37	80 B14	396	346	165
	108	213	148		138	175			0.55	379	184				
	138	261	158	3/4" f-1" f	168	0.37	71 B14	371	352	190	0.55	80 B14	396	394	199
	165	297	165	1" f	188				372	200				414	209
PVC (31) PVDF (41) PP (51)	64	239	149	1/4" f	98	0.18	63 B14	333	326	146	0.25	71 B14	371	348	155
	94	242	144	3/8" f	124	0.25	71 B14	371	340	168	0.37	80 B14	396	351	168
	108	250	147		142	177			0.55	385	186				
	138	347	159	3/4" f-1" f	166	0.37	71 B14	371	364	189	0.55	80 B14	396	406	198
PVC(31),PVDF(41),PP(51)	165	375	172	1" f	195				372	214				414	223

	STANDARD			
	21/24	31/34	41/44	51/54
PUMP HEAD	SS316L	PVC	PVDF	PP
DIAPHRAGM	PTFE			
SEAL	FPM/EPDM			
VALVES	Ceramic			
VALVE SEATS	SS316L	PTFE	PVDF	PP

OPTIONAL FEATURES

Every pump can be equipped with frequency-conversion motor or explosion-proof motor or electric actuator which accepts 4-20mA signal.

M S1 A 064 B 31 A4/CS/CX 060

PUMP IDENTIFICATION

- OPTIONAL
- MOTOR(A4:standard; CS: inverter; CX: explosive)
- PUMP HEAD MATERIALS
- STROKES
- DIAPHRAGM DIAMETER
- STROKE LENGTH
- MECHANISM TYPE
- MODEL

# MSA Series

## Mechanical Diaphragm Metering pumps

SEKO MSA Series is a mechanical diaphragm metering pump with spring return and PPS housing.

### FEATURES

■ FLOW RATE	from 10 to 120 L/h
■ MAX PRESSURE	5 bar
■ STROKE RATE	30-50-100-150-166 strokes/minute
■ DIAPHRAGM DIAMETER	70 mm
■ STROKE LENGTH	4-5 mm



### TECHNICAL FEATURES

MODEL	DIAPHRAGM DIAMETER [mm]	STROKES RATE [Strokes/min]	STROKE LENGTH [mm]	FLOW RATE [L/h]	MAX PRESSURE [bar]		CONNECTIONS		MOTOR [kW]	WEIGHT [Kg]		CARTON SIZE (LxWxH) (mm)
					SS316L	PVC	SS316L	PVC		SS316L	PVC	
MSAF070P	70	30	4	10	5	5	3/8"gf	8x12 (Standard) DN15 (Option)	0.06(X)	11	8	430x280x370
MSAF070O		50		20								
MSAF070N		100		40								
MSAF070M		150	60									
MSAF070R		166	5	90								
MSAH070R			7	120	3	3						

### PUMP HEAD MATERIALS

**SS316L, PVC PUMP HEAD**

**PTFE DIAPHRAGM**

**MAX DOSAGE TEMPERATURE**

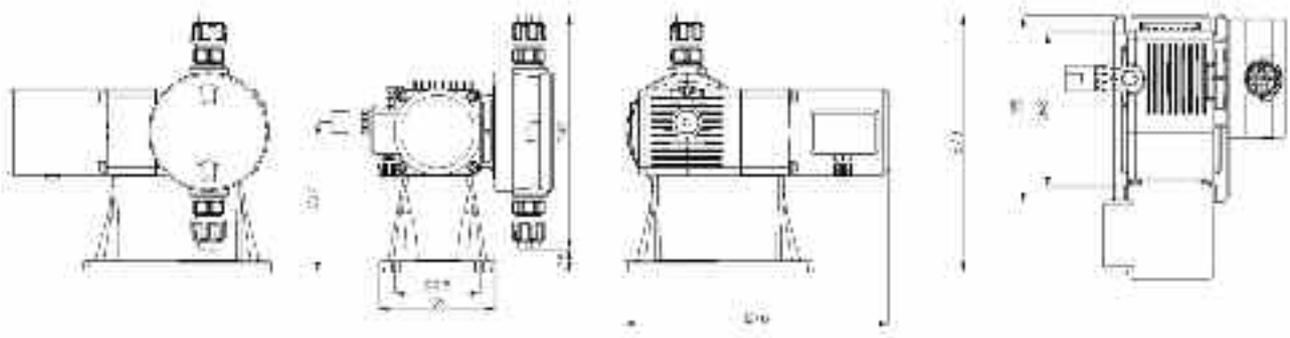
PVC/SS316L: 40°C



### MOTOR CHARACTERISTICS

■ PROTECTION CLASS	IP55; Insulation : F
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DIMENSIONAL DRAWINGS



INSTALLATION KIT (for PVC pump head only)



Injection valve (compliance with material of pump head) (G3/8", G1/2")



Foot valve (compliance with material of pump head)



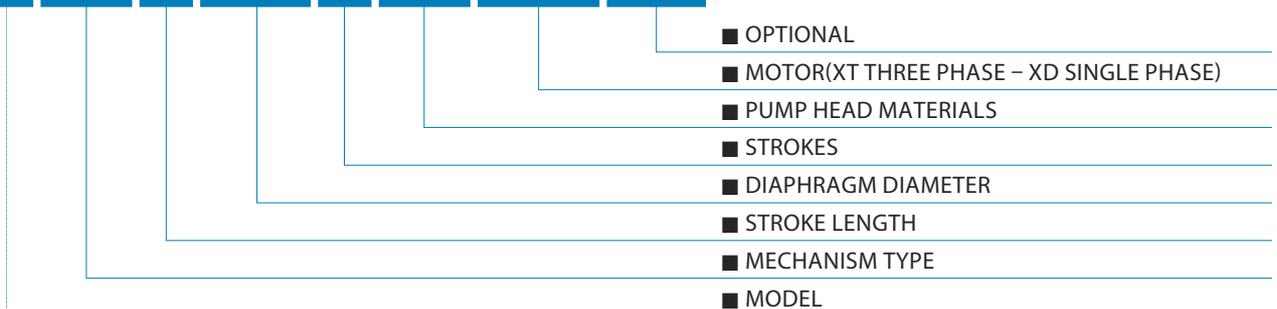
Suction tube (PVC, 2m, 8x12)



Delivery tube (PE, 3m, 8x12)

	STANDARD		ON REQUEST	
	21	31	24	34
<b>PUMP HEAD</b>	SS316L	PVC	SS316L	PVC
<b>DIAPHRAGM</b>	PTFE			
<b>SEAL</b>	FPM	EPDM		
<b>VALVES</b>	SS316L	Ceramic	SS316L	Ceramic
<b>VALVE SEATS</b>		PTFE		PTFE

**M SA F 070 M 31 XT/XD 060** PUMP IDENTIFICATION



# PS2 Series

## Plunger Piston Metering pumps

PS2 pumps are plunger piston metering pumps featuring a spring return mechanism in an aluminium housing.

### FEATURES

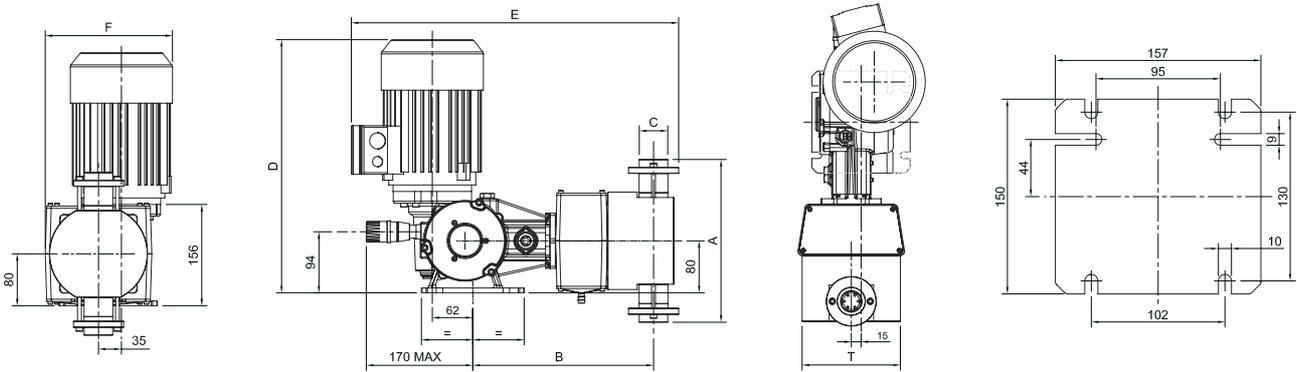
■ FLOW RATE	from 40 to 1000 L/h
■ MAX PRESSURE	20 bar
■ STROKE RATE	58 – 116 strokes/minute
■ PISTON DIAMETER	from 25 to 89 mm
■ MOTOR	standard 0.55-0.75 Kw (IP 55)
■ STROKE LENGTH	25 mm



### TECHNICAL FEATURES

MODEL	PISTON DIAMETER [mm]	STROKES RATE [Strokes/min]	FLOW RATE [L/h]	MAX PRESSURE [bar]		CONNECTIONS		MOTORS [kW]	WEIGHT [Kg]		CARTON SIZE (LxWxH) (mm)	
				SS316L	PVC	SS316L	PVC		SS316L	PVC		
PS2E025A	25	58	40	20	10	3/8 GF	3/8 GF DN15	0.55(D)	25	23	590x400x550	
PS2E025C		116	80									
PS2E030A	30	58	55									
PS2E030C		116	112									
PS2E038A	38	58	90			1/2 GF	1/2 GF	0.75(E)	26	24		
PS2E038C		116	180									
PS2E048A	48	58	140			15	10	3/4 GF	3/4 GF	27		25
PS2E048C		116	284									
PS2E054A	54	58	180	7	7	1" GF	1" GF	34	27			
PS2E054C		116	365									
PS2E064A	64	58	250	5	5	1" GF	1" GF	38	28			
PS2E064C		116	505									
PS2E076A	76	58	365									
PS2E076C		116	730									
PS2E089A	89	58	495									
PS2E089C		116	1000									

DIMENSIONAL DRAWINGS



LIQUID END MATERIAL	PLUNGER DIAMETER [mm]	A [mm]	B [mm]	C [BSP]	T [mm]	THREE-PHASE					SINGLE-PHASE				
						MOTORS [kw]	MOTOR SIZE	D [mm]	E [mm]	F [mm]	MOTORS [kw]	MOTOR SIZE	D [mm]	E [mm]	F [mm]
SS316L (21)	25	121	258	3/8" f	68	0.25	71 B14	385	443	187	0.37	71 B14	385	455	187
	30	122							455						
	38	164	268	1/2" f	88.5	0.37	80 B14	398	470	197	0.55	80 B14	398	498	
	48								472					500	
	54	176	273	3/4" f	103	0.55	80 B14	398	491	197	0.75	80 B14	412	523	
	64	195							510					542	
	76	241	288	1" f	112	0.75	80 B14	398	510	197	1.10	80 B14	412	542	
	89	253							510					542	
PVC (31)	25	179	258	3/8" f	78	0.25	71 B14	385	453	187	0.37	71 B14	385	465	187
	30	178							467						
	38	200	268	1/2" f	108	0.37	80 B14	398	483	197	0.55	80 B14	398	511	
	48	244							493					525	
	54	253	273	3/4" f	118	0.55	80 B14	398	493	197	0.75	80 B14	412	545	
	64	273							513					545	
	76	299	288	1" f	148	0.75	80 B14	398	513	197	1.10	80 B14	412	545	
	89	309							513					545	

	STANDARD	
	21/24	31/34
PUMP HEAD	SS316L	PVC
PISTON	SS316L	Ceramic
PISTON SEAL	FPM/EPDM	
VALVES	SS316L	Ceramic
VALVE SEATS	SS316L	PTFE

PUMP HEAD MATERIALS

MAX DOSAGE TEMPERATURE

PVC/SS316L: 40°C

FLOW RATE ADJUSTMENT

Every pump can be equipped with frequency-conversion motor or explosion-proof motor or electric actuator which accepts 4-20mA.

**P S2 E 064 C 31 E4 060**

PUMP IDENTIFICATION

- OPTIONAL
- MOTOR
- PUMP HEAD MATERIALS
- STROKES
- PLUNGER DIAMETER
- STROKE LENGTH
- MECHANISM TYPE
- MODEL

# PS1 Series

## Plunger Piston Metering pumps

PS1 pumps are plunger piston metering pumps featuring a spring return mechanism in an aluminium housing.

### FEATURES

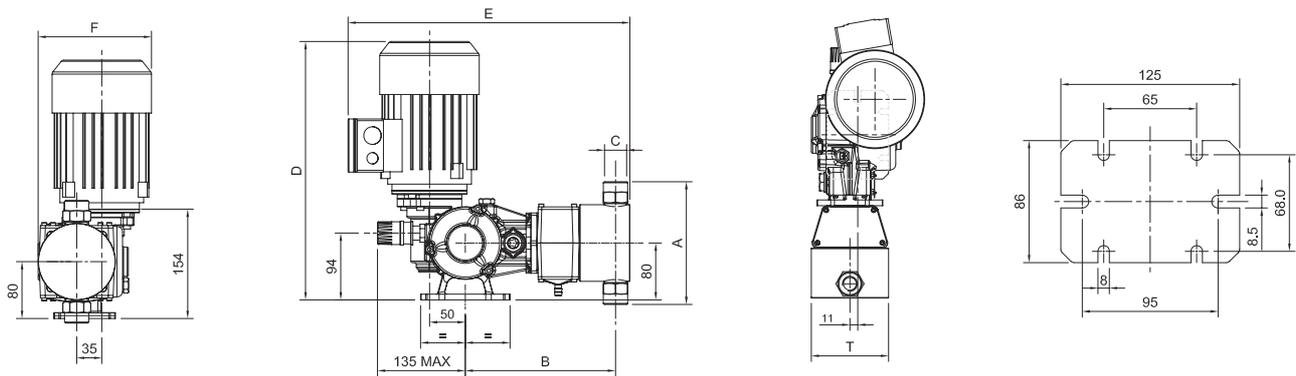
■ FLOW RATE	from 1,5 to 304 L/h
■ MAX PRESSURE	20 bar
■ STROKE RATE	58 – 116 strokes/minute
■ PISTON DIAMETER	from 6 to 64 mm
■ MOTOR	standard 0,18 and 0,25 Kw (IP 55)
■ STROKE LENGTH	15 mm



### TECHNICAL FEATURES

MODEL	PISTON DIAMETER [mm]	STROKES RATE [Strokes/min]	FLOW RATE [L/h]	MAX PRESSURE [bar]		CONNECTIONS		MOTORS [kW]	WEIGHT [Kg]		CARTON SIZE (LxWxH) (mm)						
				SS316L	PVC	SS316L	PVC		SS316L	PVC							
PS1D006A	6	58	1,5	20	10	1/4 GF	1/4 GF DN15	0.18(A)	14	12	430x280x530						
PS1D006C		116	3						14	12							
PS1D011A	11	58	5						3/8 GF	3/8 GF DN15		0.18(A)	14	13			
PS1D011C		116	10										14	13			
PS1D017A	17	58	11										1/2 GF	1/2 GF	0.25(B)	17	14
PS1D017C		116	22													17	14
PS1D025A	25	58	25			10	10	0.25(B)								19	16
PS1D025C		116	50													19	16
PS1D030A	30	58	35						8	8		0.25(B)				19	17
PS1D030C		116	70													20	17
PS1D038A	38	58	55										6	4	0.25(B)	21	19
PS1D038C		116	110													21	19
PS1D048A	48	58	85	3/4 GF	3/4 GF	0.25(B)	21	19									
PS1D048C		116	170				21	19									
PS1D054A	54	58	110				21	19	0.25(B)	20	17						
PS1D054C		116	220							20	17						
PS1D064A	64	58	152							21	19	0.25(B)	21	19			
PS1D064C		116	304										21	19			

DIMENSIONAL DRAWINGS



LIQUID END MATERIAL	PLUNGER DIAMETER [mm]	A [mm]	B [mm]	C [BSP]	T [mm]	THREE-PHASE					SINGLE-PHASE					
						MOTORS [kw]	MOTOR SIZE	D [mm]	E [mm]	F [mm]	MOTORS [kw]	MOTOR SIZE	D [mm]	E [mm]	F [mm]	
SS316L (21)	6	161	195	1/4" f	68	0.18	63 B14	333	362	151	0.25	71 B14	371	392	160	
	11															121
	17	200	1/2" f	390		409										
	25						122	3/4" f	401	411						
	30	164	210	108		420										
	38						176	215	103	422						
	48	220	195	1/4" f		79					0.18			63 B14		333
	54						179	200	3/8" f	78						
64	178	210	1/2" f	98	402	421										
							200	210	3/4" f	108	403	165				
	244	215	3/4" f	118	413	166										
							253	215	3/4" f	120						
	273	215	3/4" f	120												

	STANDARD	
	21/24	31/34
PUMP HEAD	SS316L	PVC
PISTON		Ceramic
PISTON SEAL	FPM/EPDM	
VALVES	SS316L	Ceramic
VALVE SEATS		PTFE

PUMP HEAD MATERIALS

MAX DOSAGE TEMPERATURE

PVC/SS316L: 40°C

FLOW RATE ADJUSTMENT

Every pump can be equipped with frequency-conversion motor or explosion-proof motor or electric actuator which accepts 4-20mA.

**P S1 D 064 C 31 B4 060**

PUMP IDENTIFICATION

- OPTIONAL
- MOTOR
- PUMP HEAD MATERIALS
- STROKES
- PLUNGER DIAMETER
- STROKE LENGTH
- MECHANISM TYPE
- MODEL

# Notes

# Notes

# Your Choice, Our Commitment

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

## Vision

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

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

## Values

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

### MUTUAL RESPECT

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

### QUALITY

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

### SPIRIT OF COLLABORATION

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



# Your Choice, Our Commitment

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

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



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



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

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