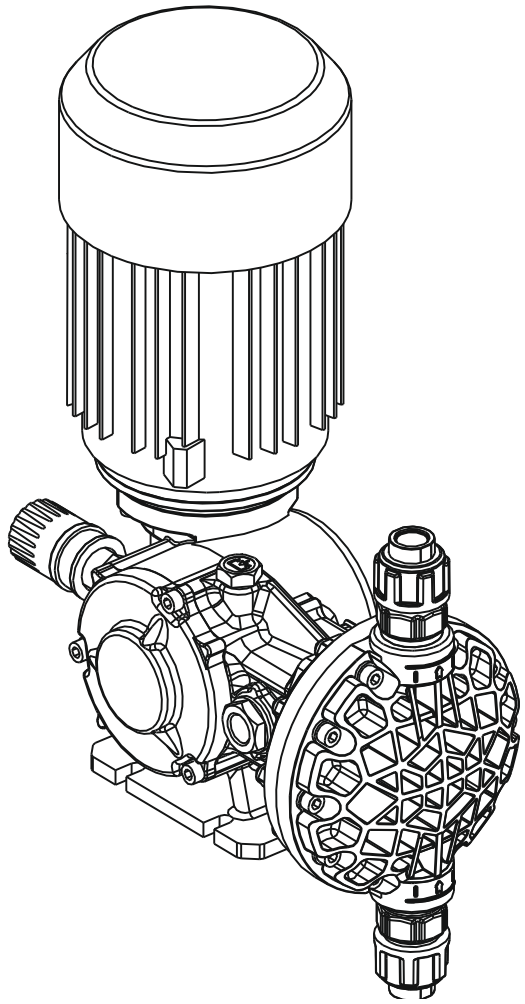
# DOSING PUMP

## SPRING SERIES – MS1_AVS – Mechanical diaphragm pump with AVS™



### TECHNICAL CHARACTERISTICS

**AVS™ – Automatic Vacuum System**

- Flow rates: from 450 to 1200 l/h
- Max Pressure: up to 4.5 bar (65 psi)
- Motor:
  - 0.55 kW - 3 ph (IP55)
  - 0.75 kW - 1 ph (IP55)
- Stroke rate: 156 - 232 strokes/minute
- Stroke length: 6 mm
- Diaphragm diameter: 138 and 165 mm
- Pump head:
  - SS 316 L
  - PP
  - PVC
  - PVDF
- Max. dosing temperature:
  - SS 316 L 40˚ C
  - PP 40˚ C
  - PVC 40˚ C
  - PVDF 40˚ C
- Range of ambient temperature of use:
  - 5 ÷ 40˚ C

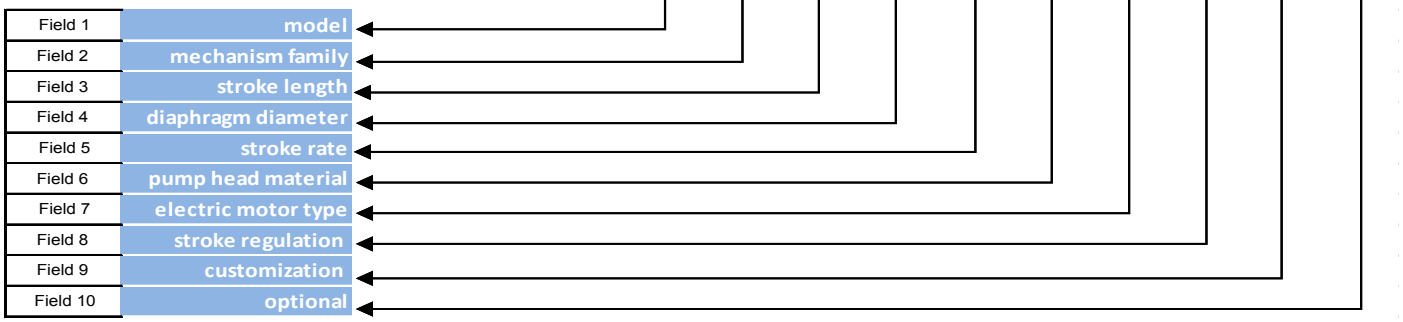
Seko mechanical diaphragm pump MS1 Series has a wide range product. The patented ***AVS™ - Automatic Vacuum System*** that equips some MS1 models, was created with the intention of improving the working conditions of the membrane, increase and optimize the performance of the pump. the device makes the system self-calibrating, for example whenever it is necessary: when, in the case of heating of the pump or the environment and in the case of maintenance with the replacement of the membrane. you can have an improved volumetric efficiency up to 55%, an improvement in the behavior priming, greater heights possible on the suction head (at constant preload) and less loss of flow rate to vary the height of aspiration (maximum value found 2 % per meter of the water column in the diaphragm version). Furthermore, the operation that you get bumps has reduced the cam mechanism, so less noise and less mechanical stress, even for versions 3.9 strokes/second (232 strokes per minute).

# DOSING PUMP

## SPRING SERIES – MS1_AVS – Mechanical diaphragm pump with AVS™

### PUMP KEY CODE

| Field 1 | Field 2 | Field 3 | Field 4 | Field 5 | Field 6 | Field 7 | Field 8 | Field 9 | Field 10 |
|---|---|---|---|---|---|---|---|---|---|
| M | S1 | C | 165 | H | 51 | W2 | 0 | 0 | A |




| | | | |
|---|---|---|---|
| Field 1 | model | **M** | ***Diaphragm*** |
| Field 2 | mechanism family | **S1** | *Membrane* |
| Field 3 | stroke length | **C** | *6 [mm]* |
| Field 4 | diaphragm diameter | **138** | *138 [mm]* |
| | | **165** | *165* |
| Field 5 | stroke rate | **H** | *156 [stroke/1']* |
| | | **Q** | *232* |

Field 6 — pump head material

| | *head* | *diaphragm* | *valves* | *seat valves* | *O-Ring* | |
|---|---|---|---|---|---|---|
| **21** | SS316 | PTFE | SS316 | SS316 | FPM | *on Ø 64* |
| **31** | PVC | | CERAMIC | PTFE | FPM | *on Ø 94 - 108* |
| **51** | PP | | CERAMIC | PTFE | FPM | *on Ø 94 - 108* |
| **24** | SS316 | PTFE | SS316 | SS316 | EPDM | *on Ø 64* |
| **41** | PVDF | | CERAMIC | PTFE | FPM | *on Ø 94 - 108* |
| **52** | PP | | SS316 | SS316 | FPM | *on Ø 94 - 108* |

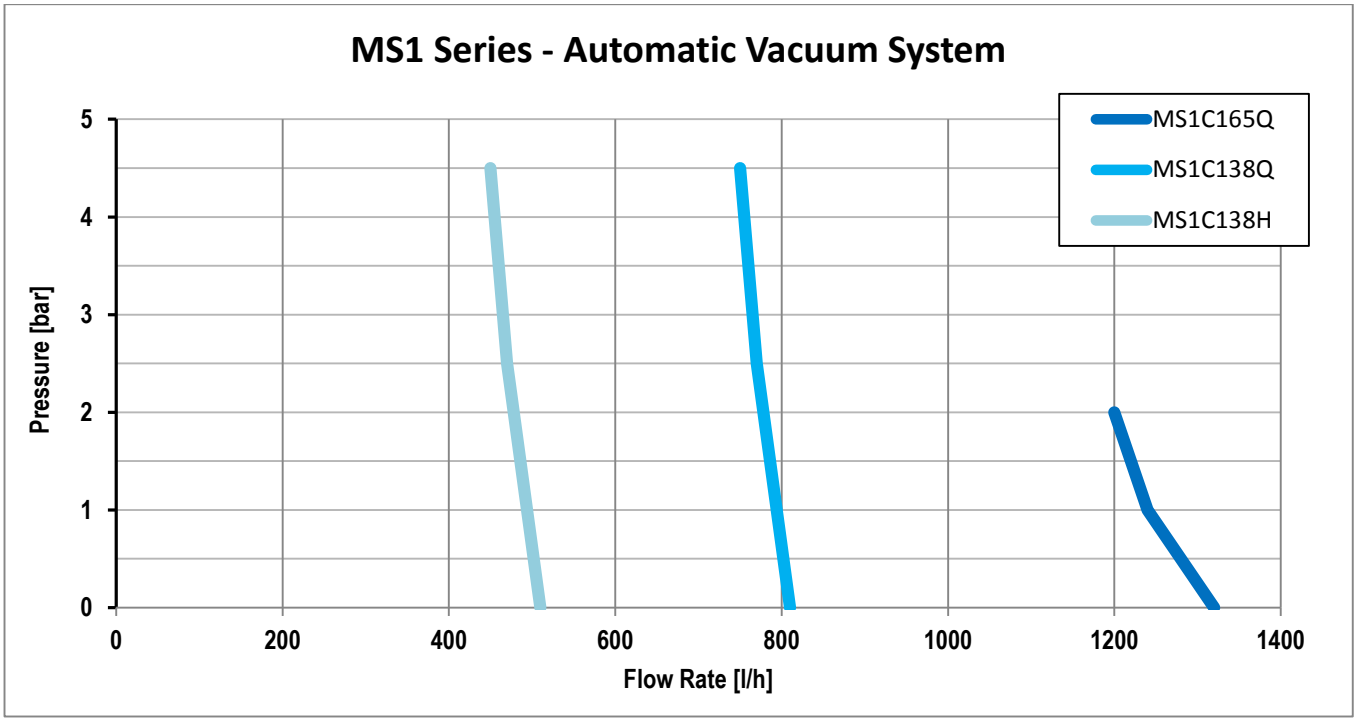
| | | | |
|---|---|---|---|
| Field 7 | electric motor type | **W2** | *0,55 kW* (2 poles - 3phases 230-400 Vac 50/60 Hz - size 71-B14) |
| | | **Y2** | *0,75 kW* (2 poles - 1phase 230 Vac 50 Hz - size 71-B14) |
| Field 8 | stroke regulation | **0** | *Manual with adjustment knob - STANDARD* |
| | | **L** | *Automatic Linear Actuator AKTUA series* |
| Field 9 | customization | **0** | *Standard* |
| Field 10 | optional | **A** | *Automatic Vacuum System - Standard* |

# DOSING PUMP

## SPRING SERIES – MS1_AVS – Mechanical diaphragm pump with AVS™

### HYDRAULIC CHARACTERISTICS

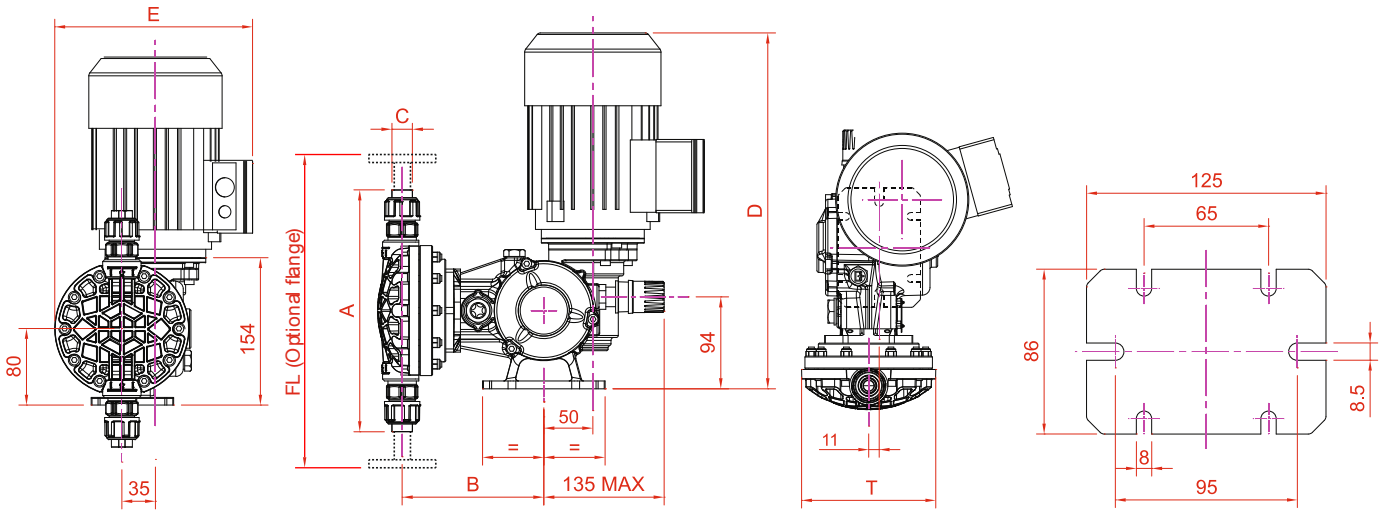
| Pump Model | Diaphragm Diameter [mm] | Stroke/min | Flow rate | | *Max back pressure* | | *Suction/Discharge Connection* | | Electric Motor [kW] | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | bar | p.s.i. | | | | |
| | | | l/h | gl/h | SS 316 / PP / PVC | SS 316 / PP / PVC | SS316 | PP | 3 phases | 1 phase |
| **M S 1 C 1 3 8 H** | 138 | 156 | 450 | 99 | 4.5 | 65.26 | 1" G F | 1" G F | 0,55 (W2) | 0.75 (Y2) |
| **M S 1 C 1 3 8 Q** | 138 | 232 | 750 | 165 | 4.5 | 65.26 | 1" G F | 1" G F | 0,55 (W2) | 0.75 (Y2) |
| **M S 1 C 1 6 5 Q** | 165 | 232 | 1200 | 264 | 2 | 29.01 | 1" G F | 1" G F | 0,55 (W2) | 0.75 (Y2) |



# DOSING PUMP

## SPRING SERIES – MS1_AVS – Mechanical diaphragm pump with AVS™

### DIMENSIONS




| Material Pump Head | Pump Model | DIMENSIONS [mm] | | | | | 3 PHASE | | | | 1 PHASE | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | FL | B | C | T | P kW | Size | D mm | E mm | P kW | Size | D mm | E mm |
| S 316 | MS1C138 | 261 | 361 | 158 | 1” G f | 168 | 0.55 | 71 B14 | 371 | 190 | 0.75 | 71 B14 | 396 | 199 |
| | MS1C165 | 297 | 397 | 165 | 1" G f | 188 | 0.55 | 71 B14 | 371 | 200 | 0.75 | 71 B14 | 396 | 209 |
| PP PVC PVDF | MS1C138 | 347 | 547 | 159 | 1" G f | 166 | 0.55 | 71 B14 | 371 | 189 | 0.75 | 71 B14 | 396 | 198 |
| | MS1C165 | 375 | 575 | 172 | 1" G f | 195 | 0.55 | 71B14 | 371 | 214 | 0.75 | 71 B14 | 396 | 223 |