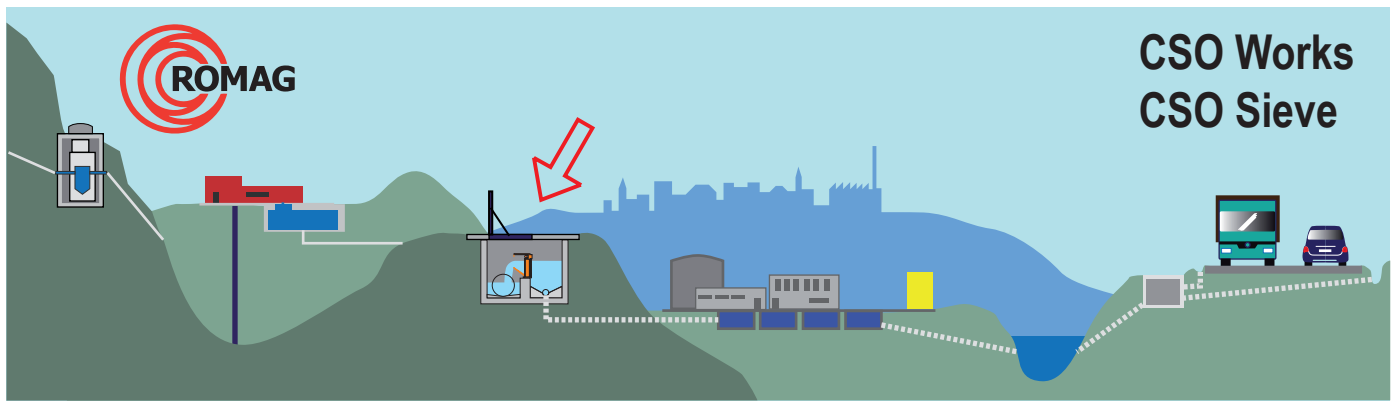




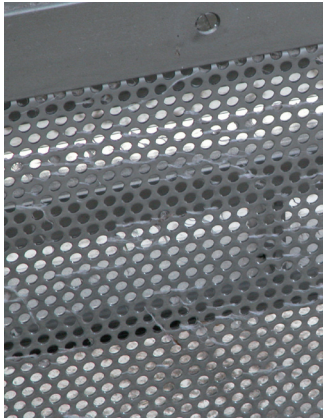
## CSO Works CSO Sieve

From the water catchment to the ecological treatment of the meteoric water : ROMAG solutions

Certified: ISO 9001 / ISO 3834-2



RSL 3X2-0.6



Sieve

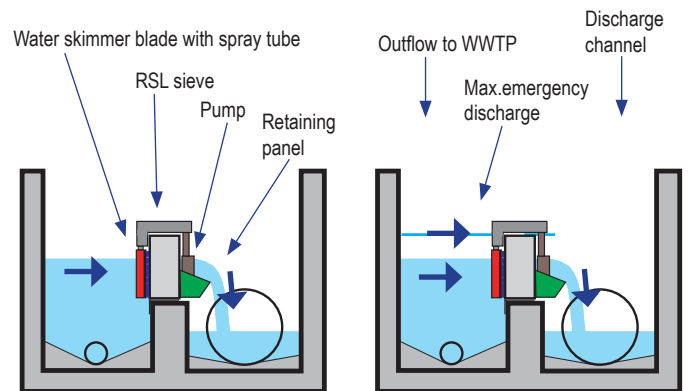
### Benefits

of the ROMAG RSL sieve:

- Dispenses with the need to make high investments in retaining-capacity volume
- Prevents unnecessary contamination of the receiving water courses
- Is safe and reliable to operate
- Permanently performs mechanical cleaning action
- Is gentle on the caught material
- Does not force caught material through the perforated plate
- Is resistant to corrosion
- Is rugged
- Requires little maintenance
- Has a hole diameter of 6 mm
- Transports the caught material out of the inlet zone
- Materials either 316L or 304L

### Function

The RSL sieve installed vertically between the discharge culvert and the relief channel, reliably retains all visible solids as the excess water passes through.



Water flows horizontally through the perforated sieve. The sieve is installed on the prepared concrete sill by the builder-owner. The height of the sill depends on the hydraulic survey and is lower than the required water level when relief operations start. The retaining plate attached at the rear side of the screen is designed to allow a uniform screening rate to be achieved but not to exceed a CS max. of 1.50 m/s. The upper edge of the sieve is designed as an emergency overflow. The water is discharged via the sieve if the cleaning system fails (e.g. in the event of electrical power failure) or overload. Particular importance has been

attached to **operating safety** and reliability. The first steps towards this relate to omission of components susceptible to failure, such as limit switches. The caught material adhering to the surface is skimmed off with a water jet over the entire height of the sieve surface and supplied together with the sewage to the sewage treatment plant. The non-potable water is pumped by a pump from the clean screen side into the spray pipe. The clever design means that the sieve cleans itself constantly. This method of cleaning prevents soft material being forced into and through the holes of the sieve and causing a partial blockage.



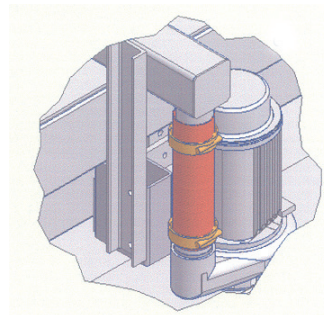
RSL sieve inlet side (2-module-high)



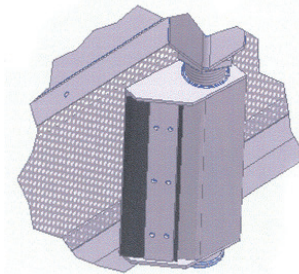
RSL sieve, relief side

## Design

The ROMAG RSL sieve consists of a rugged frame made of stainless-steel sections. A perforated sieve is clamped onto these. The separately guided scraper unit is moved to and fro with the chain drive with geared motor housed in the head section. This unit contains the pump, the spray pipe and the slotted nozzle. The water which emerges at excess pressure from the slotted nozzle flushes the caught material adhering to the perforated screen away towards the sewage treatment plant outlet. The slotted nozzle itself does not contact the perforated screen. The number of movements per unit of time is determined dependent on operating conditions so as to ensure optimum operation. A pneumatic cylinder fitted in the head section may also be used optionally to drive the skimmer unit.



Skimmer unit on the relief side looking onto guide and pump



Skimmer unit on the intake side looking onto the slotted nozzle

### Net screen areas m<sup>2</sup> Throughput m<sup>3</sup>/s

| Clear length m<br>Clear height m | 2    | 3    | 4    | 5    | 6    |
|----------------------------------|------|------|------|------|------|
| 0.4                              | 0.28 | 0.47 | 0.65 | 0.84 | 1.03 |
|                                  | 0.42 | 0.70 | 0.98 | 1.26 | 1.55 |
| 0.5                              | 0.37 | 0.61 | 0.86 | 1.11 | 1.36 |
|                                  | 0.55 | 0.92 | 1.29 | 1.67 | 2.04 |
| 0.6                              | 0.45 | 0.76 | 1.07 | 1.38 | 1.69 |
|                                  | 0.68 | 1.14 | 1.61 | 2.07 | 2.53 |
| 0.7                              | 0.54 | 0.91 | 1.28 | 1.65 | -    |
|                                  | 0.81 | 1.36 | 1.92 | 2.47 | -    |

## System

The ROMAG RSL sieve is based on the wealth of experience which we have with the familiar RSW, RSW-K, RSO and RSU screen which are in operation in many countries. However, close cooperation with the offices and agencies involved is necessary in order to achieve a reliably operating installation. This is required in order to determine and comply with the hydraulic boundary conditions. These relate to streamlined feed to the screen system and discharge to the sewage treatment plant with the required downgrade: the caught material transported to a defined point must be able to find its way continuously downwards to the sewage treatment plant's outlet. The sieve may also be installed horizontally with incident flow from below or above (analogously to RSU or RSO) if special hydraulic conditions apply.

## Technical data

### Electrical:

-Carriage drive:  
0.25 kW, 3 x 400V

-Pump drive:  
2.5 kW, 3 x 400V

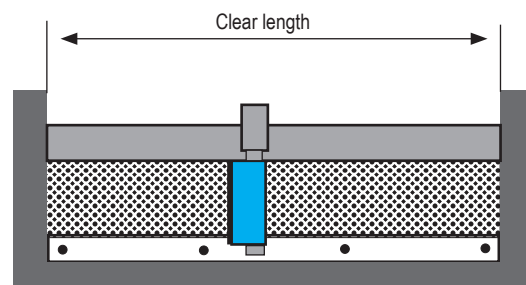
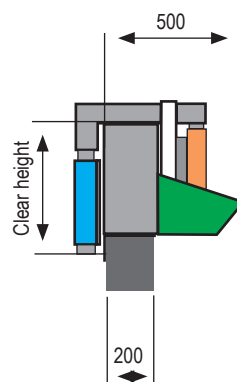
### Pneumatic:

-Pneumatic cylinder:  
compressed air min. 6 bar,  
100 NI/min

### Enclosures:

Motor and pump IP68 and  
ATEX intrinsically safe protection

## RSL dimensions (see also table above)



Transport of caught material  
←

Dimensions in mm  
Table dimensions in m

Subject to modification!

Patent protected

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