



Sismat Uluslararası  
Arıtma Makinaları  
İnşaat Mühendislik  
Sanayi ve Tic. A.Ş.



**TRAVELLING  
PERFORATED SCREENS**



## TRAVELLING PERFORATED SCREENS

Travelling perforated screens are the equipment which are used for fine screening of solid materials by way of the perforations, which provide two dimensional screening process with the highest removal rates, and generally preferred to use in water and wastewater treatment plants. They have a capability of capturing the particles even in very small size and can be directly mounted in channels.

This type of screen has a moving screen surface which continuously refreshes itself by travelling and, the components of screen last long due to this feature. Screen surface is automatically cleaned by nozzles which are located on outer surface of the screen panels. Because of the unique design of equipment, it is economically beneficial considering water and energy usage. On the other hand, the equipment has a high solid-liquid separation capacity by reason of its continuously cleaning ability, and it is well-suited for capturing the solids except the fibrous materials. As screening media, it has multiple perforated panels and operated as an endless loop.

It is a well-known fact that central flow principle is the most effective way to remove suspended solid materials from liquid. Therefore, perforated screen panels are positioned parallel to the water flow. The water firstly enters the centre of travelling perforated screen, and then exits outward through both the ascending and descending perforated panels.

Sismat Uluslararası Travelling Perforated Screens are mainly composed of frame, sprockets, drive shafts, screen panels, washing system and drive unit.

### FEATURES AND BENEFITS OF SISMAT ULUSLARARASI TRAVELLING PERFORATED SCREENS

- Robust design and reliable operation
- High solid-liquid separation efficiency
- Minimum area requirement due to the compact design
- Suitable for use in deep channels
- Automatic cleaning mechanism
- Easily installed and retrofitted into any channels
- Low operation and maintenance cost
- Low energy consumption

### APPLICATIONS

- Water treatment plants
- Municipal wastewater treatment plants
- Industrial wastewater treatment plants
  - Food industry,
  - Agricultural industry, etc.
- Water intakes
- Power stations

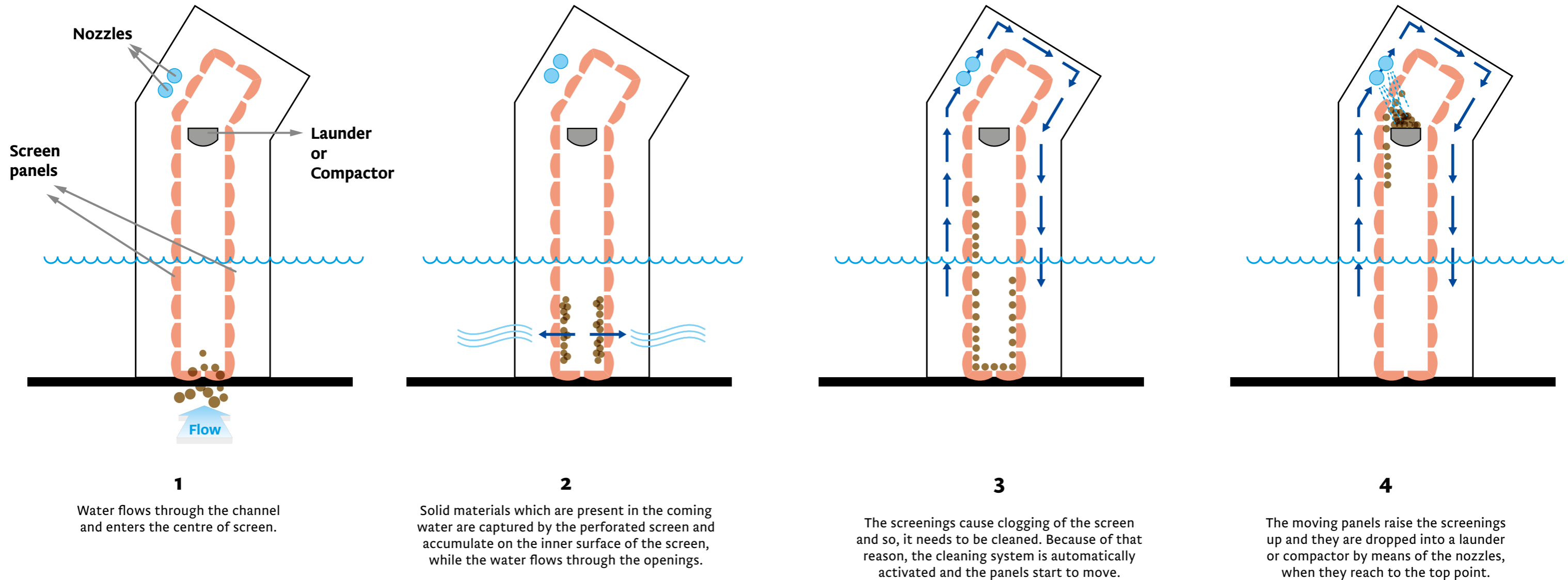
## WORKING PRINCIPLE

Water flow enters the travelling perforated screen, which is mounted in parallel with the flow direction, through an opening in the centre of the screen frame. The solid materials are captured by the inner surface of perforated screen panels while the water flows through the screen. The screenings accumulate on the panels by time and cause clogging of the openings. Because of that reason, the screen needs to be cleaned and automatic cleaning mechanism is activated by a signal sent from the control panel. The perforated screen panels move the screenings up, and they are dropped into a launder or compactor by means of nozzles. Then, they are transferred to a conveyor or container. After discharging, the clean screen panels continue to move down and reach to the starting point.

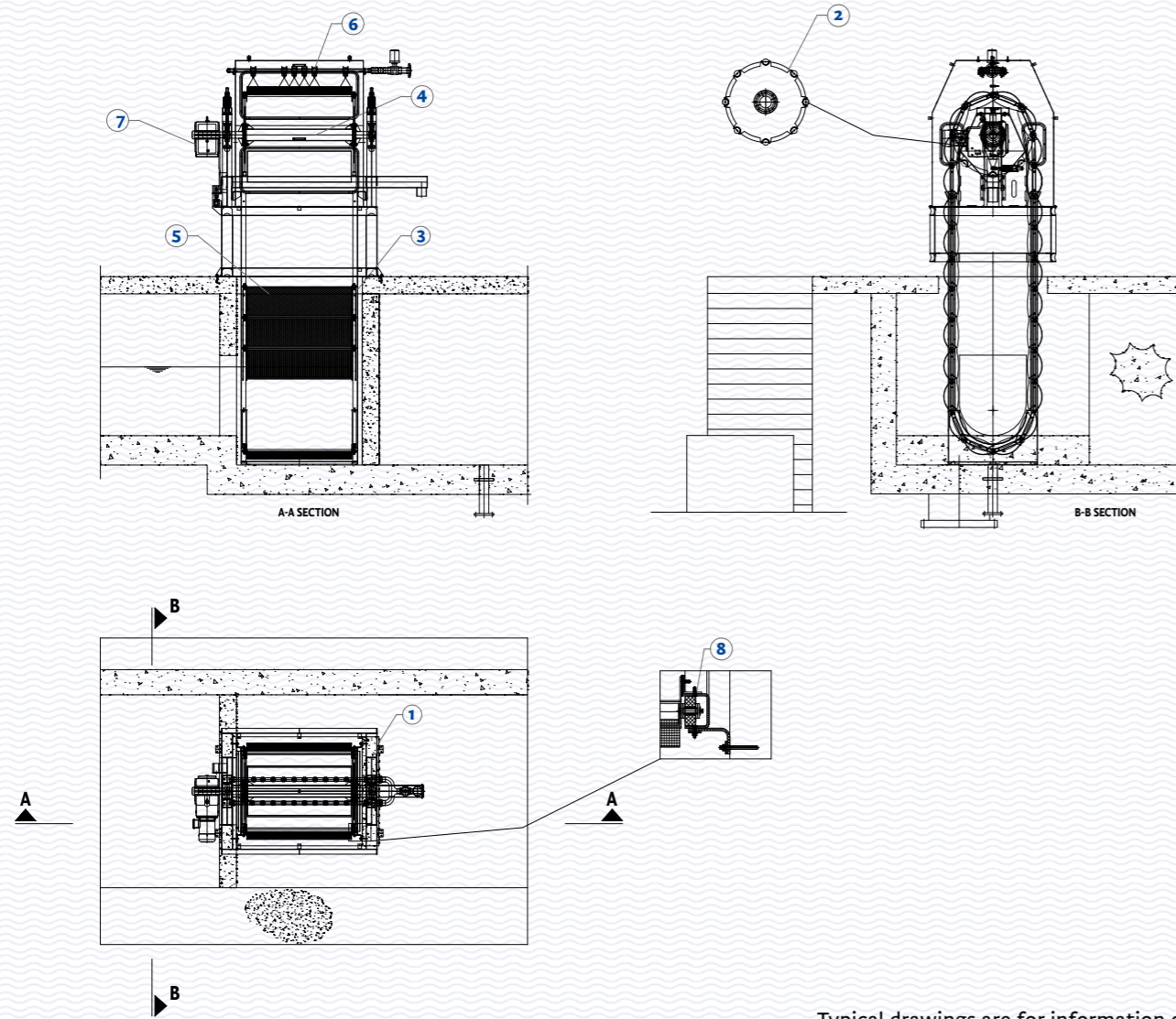
## OUR TRAVELLING PERFORATED SCREEN SPECIFICATIONS

| Specifications   |  |
|------------------|--|
| Capacity         | 180 m <sup>3</sup> /h - 12,000 m <sup>3</sup> /h |
| Band width       | 300 mm - 1500 mm                                 |
| Channel depth    | up to 7000 mm                                    |
| Perforation size | 2 mm x 2 mm - 6 mm x 6 mm                        |

\*For special dimensions, please consult Sismat Uluslararası Sales Engineers.



## Typical Travelling Perforated Screen & Components



Typical drawings are for information only.



## OUR TRAVELLING PERFORATED SCREEN COMPONENTS

|   | Travelling Perforated Screen Components | Materials Available  |
|---|---|--|
| 1 | Frame                                   | Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX |
| 2 | Sprockets                               | Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX |
| 3 | Chain                                   | Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX |
| 4 | Drive shafts                            | Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX |
| 5 | Screen panels                           | Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX |
| 6 | Washing system                          | Stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX                 |
| 7 | Drive unit                              | -according to norm of manufacturer   |
| 8 | Fasteners                               | A2, A4 , DUPLEX or SUPER DUPLEX  |



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