



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



**TRICKLING FILTER  
ROTARY DISTRIBUTORS**



## TRICKLING FILTER ROTARY DISTRIBUTORS

Effective wastewater distribution is essential for achieving optimum performance of a fixed film reactor process (trickling filter). While ensuring consistent distribution of the wastewater over the trickling filter, the flow can be adjusted for seasonal needs for example (higher flow during touristic season), daily needs (lower flow at night), or to adapt to future needs over a longer period of time.

Sismat Uluslararası Trickling Filter Rotary Distributors are available in different arm configurations as a rotary reaction type (hydraulically driven) or motorized type (motor driven) for circular trickling filter beds of all types and sizes. The motorized rotary distributor turns at a controlled speed regardless of flow to allow the operator to control the dousing rate.

Reaction-driven units are driven by the force of the wastewater delivered to the distributor. In most cases this will be a pumped flow but where site gradients permit gravity fed units can be designed and installed.

Motor-driven rotary distributors with variable speed control are also available where high performance and increased levels of process control are required. All power-driven units can be supplied with a facility to operate in reaction mode in the event of a power failure, returning back to motor drive once power is restored. Motorized rotary distributors can be reversed and back-driven. This feature is particularly useful during start-up and installation.

Sismat Uluslararası Trickling Filter Rotary Distributors are mainly made up of tension rod, collector, distribution arm, drive arm and weir.

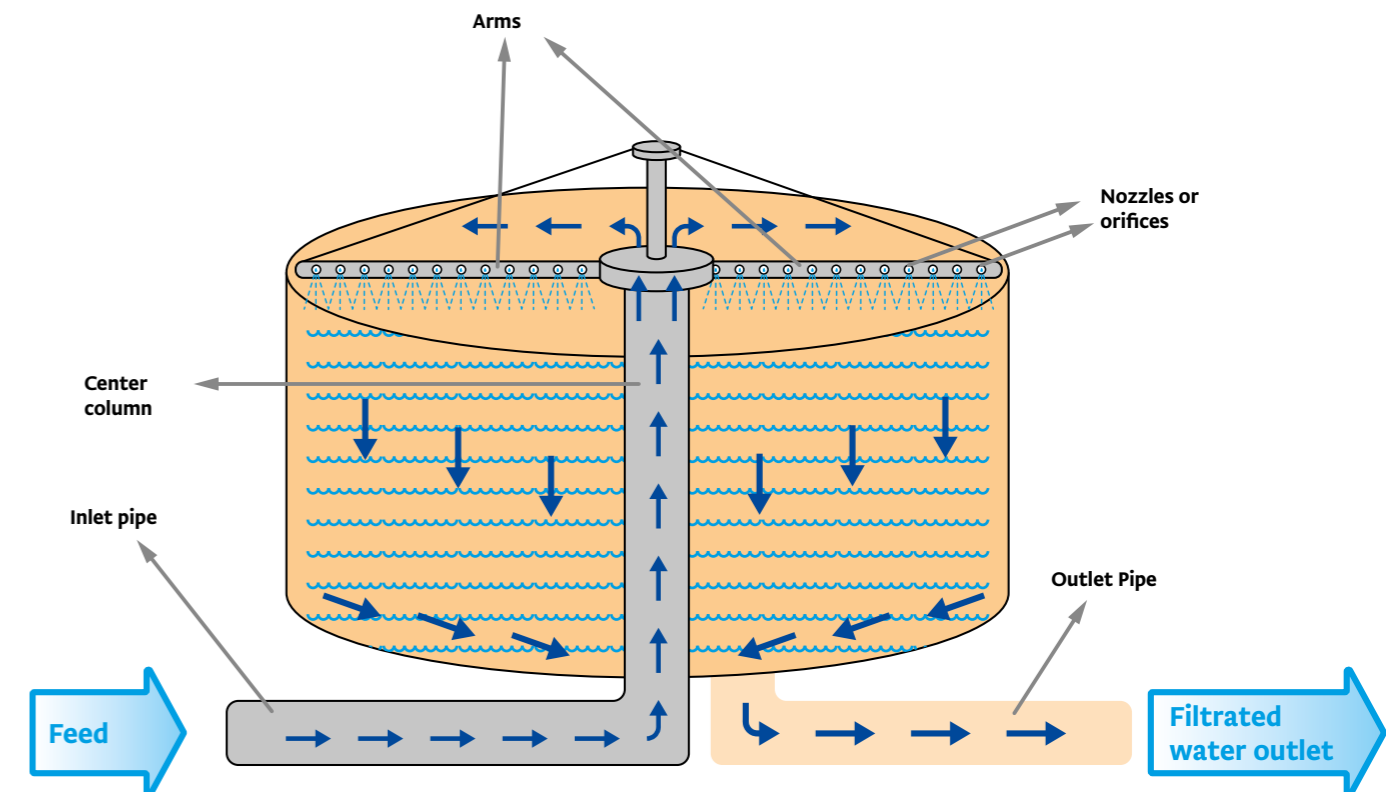
## FEATURES AND BENEFITS OF SISMAT ULUSLARARASI TRICKLING FILTER ROTARY DISTRIBUTORS

- Simple and reliable
- Trouble free operation with minimum service needs
- Creates a curtain effect to ensure all the media contributes to the process
- Easy to clean, maintain and upgrade
- Cost effective
- Long life time
- Open trough arms for less prone to blockage
- Motorized or manual

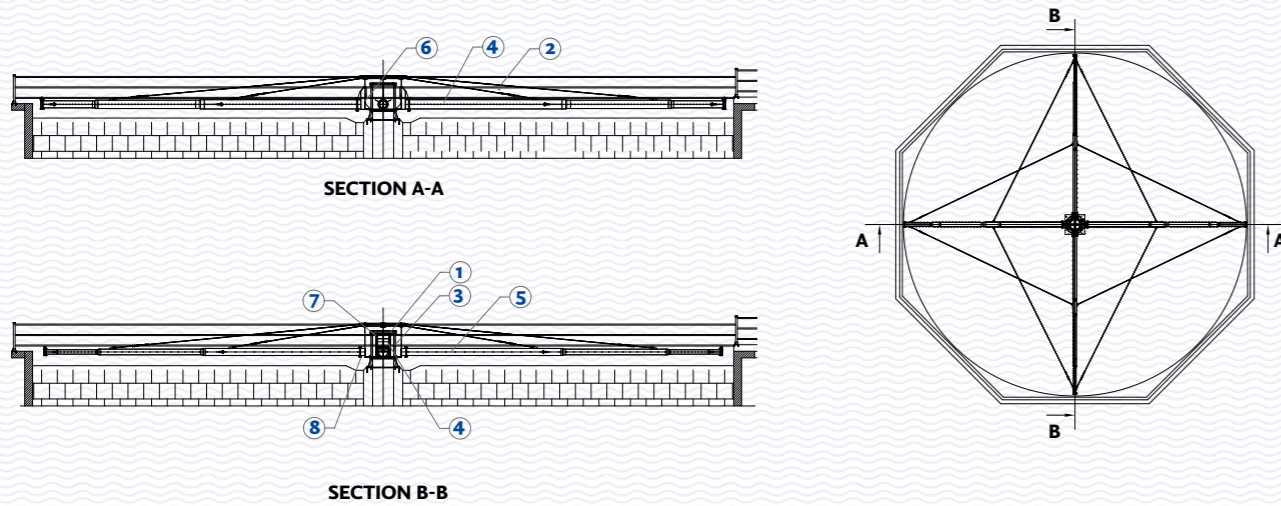


### WORKING PRINCIPLE

Sismat Uluslararası Trickling Filter Rotary Distributors are used to have an equal distribution of wastewater on the filter. They consist of a hollow vertical center column having two or more arms above the filter media and a bearing placed at the column base for allowing it to rotate easily. There are a number of nozzles fitted onto the arms, or they have orifices, to distribute the wastewater efficiently onto the filter bed. The wastewater comes from the pipeline located under the filter bed and flows through the center column of distributor. The arms distribute the water over the filter media through the nozzles or orifices. Distributor arms' length and nozzles' number and sizes are quite important parameters to be ensured the correct dosage given and equal distribution of wastewater.



## Typical Trickling Filter Rotary Distributor & Components



Typical drawings are for information only.



## OUR TRICKLING FILTER ROTARY DISTRIBUTOR COMPONENTS

	Trickling Filter Rotary Distributor Components	Materials Available
1	Frame	Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX
2	Tension rod	Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L,
3	Collector	Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX
4	Distribution arm	Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX
5	Drive arm	Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX
6	Weir	Carbon steel or stainless steel grade, AISI304, AISI304L, AISI316, AISI316L, AISI316Ti, DUPLEX or SUPER DUPLEX
7	Central bearing	-according to norm of manufacturer
8	Fasteners	A2, A4 , DUPLEX or SUPER DUPLEX





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