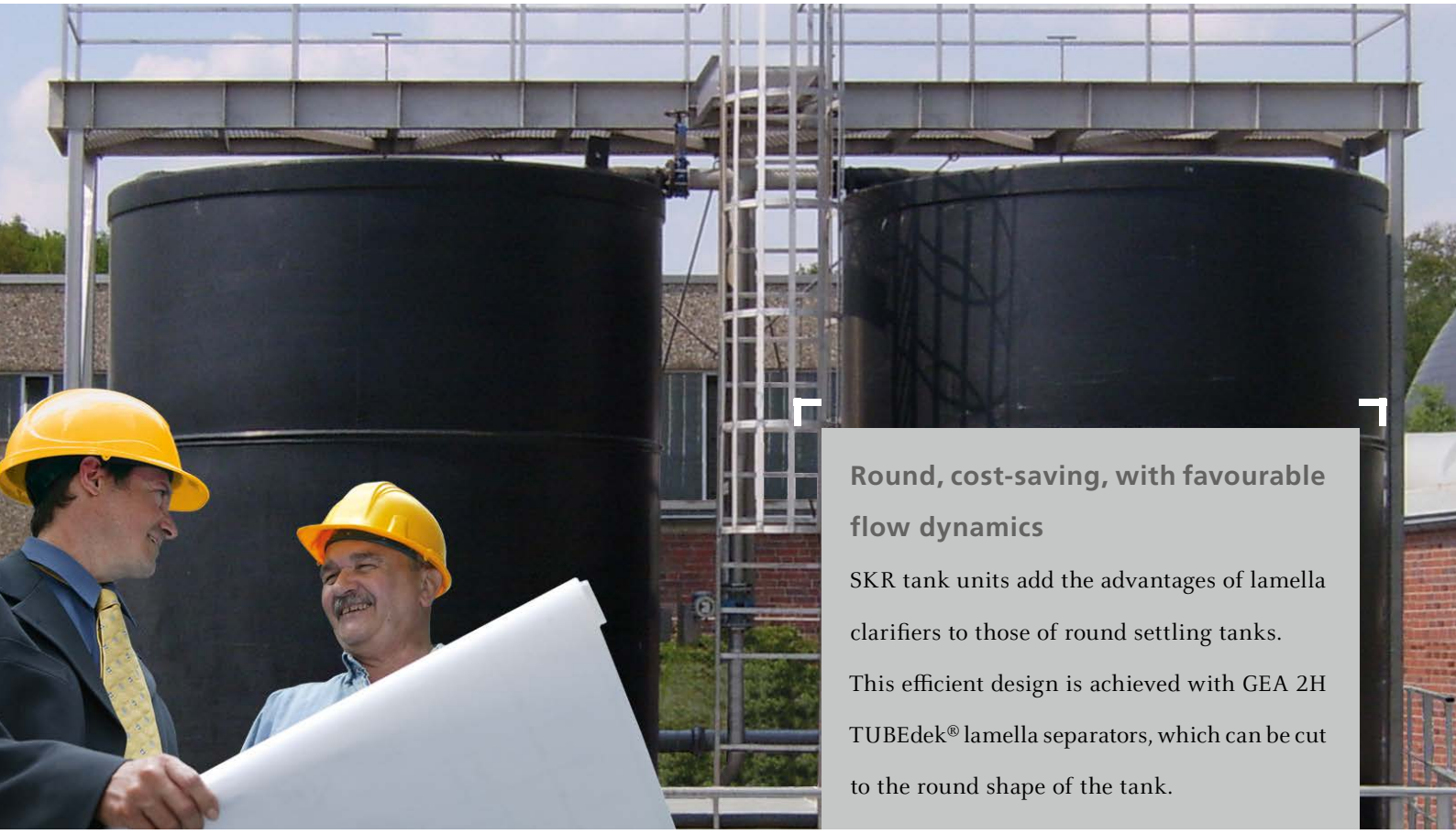
GEA 2H SKR sedimentation tank unit with HX-Factor

Efficient sedimentation in compact units



Round, cost-saving, with favourable flow dynamics

SKR tank units add the advantages of lamella clarifiers to those of round settling tanks. This efficient design is achieved with GEA 2H TUBEdek® lamella separators, which can be cut to the round shape of the tank.

The SKR tank series offers a range of compact, ready-to-connect units for separating solids from liquids. The sedimentation process in these units bases on the proven counter-flow principle. They are available in different sizes with settling areas of 2 – 72 m^2 and flow rates of 2 – 70 m^3/h for usual sedimentation tasks.

The SKR tank series are installed easily and quickly. The innovative circular design does not only save costs but as well stills the influent, achieves a uniform flow distribution in the lamellas and facilitates the sludge concentration in the hopper.

Our products have got the HX-Factor. It is our promise and stands for our unique competence in water and wastewater treatment and in heat exchange (**HX** = **H**EAT E**X**-CHANGE).

HX-Factors of the GEA 2H SKR series

- Low-cost, round design with circular frame support
- Rapid, easy installation
- Very good sludge thickening in 60° conical hopper
- Large, efficient sedimentation area by the TUBEdek® units
- Easily relocated to a new site

Exterior: Robust tanks – round or square

The sedimentation tank units come in 13 different standard types and are adaptable to the specific project requirements. The tank size, the projected sedimentation surface for the TUBEdek® type and the flange size of the inlet, outlet and sludge drain connections can all be accordingly selected.

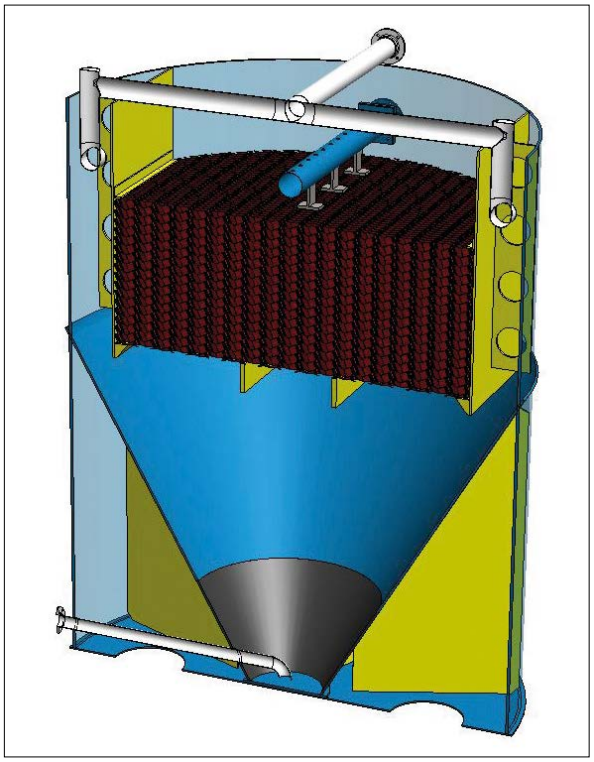
The SKR is divided into four areas:

- Inlet area
- Thickening and sludge accumulation zone
- Separation zone with TUBEdek® lamellas
- Clear water zone with launders

The influent enters the SKR from two opposite sides. In the influent sections the incoming flow is slowed down, descends and then rises up through the TUBEdek lamellas. The solids settle on the lamella planes before sliding down to the hopper. There in the thickening and accumulation zone, the solids thicken further. The clear phase rises and is collected in the launders.

The separated sludge has to be extracted from the thickening zone's sump in regular intervals.

In addition to our standardised SKR design with the advantages of the round construction, we also supply special solutions consisting of square-design tank units. Special transport requirements (e.g. in containers) or space requirements at the installation site can be met by this design.



Sketch of SKR tank unit



Rectangular SK-tank unit

Interior: TUBEdek® lamella clarifiers for efficient sedimentation

The key component is found inside the tank: The TUBEdek® lamellas. The numerous, equidistant sedimentation levels of the lamella clarifier ensure a reliable separation process. These also provide the system with its high hydraulic capacity.

The V-shaped channels support the sludge discharge. The TUBEdek® lamella clarifiers have proven themselves repeatedly in the field, regardless whether utilised as tank components or in large-scale systems



TUBEdek® FS41.50

GEA 2H SKR sedimentation tank unit

Round tank with circular frame support	
Material	PP or PE
Diameter	up to 3.4 mm
TUBEdek®	FS41.50 / FS41.84
Lamella height	800 – 1000 mm
Sedimentation surface	15 – 72 m^2
Flow rate	2 – 70 m^3/h (guideline for typical applications)

Standard range GEA 2H SKR sedimentation tank unit

Lamella package H = 1 m

Type	Inner diameter D m	Width W m	Total height H m	Net weight with TUEBEdek® approx. kg	Total weight (when filled) approx. kg	Water volume m^3	Projected sedimentation surface P FS41.50 m^2	Projected sedimentation surface P FS41.84 m^2
SKR10-17	1.85	1.45	2.70	250	5050	4.80	20.40	11.10
SKR10-26	2.20	1.70	3.00	590	7590	7.00	31.00	16.90
SKR10-35	2.50	1.96	3.30	810	10410	9.60	41.60	22.70
SKR10-46	2.80	2.21	3.50	900	13400	12.50	46.00	25.10
SKR10-58	3.10	2.47	3,80	1350	17350	16.00	58.30	31.80
SKR10-72	3.40	2.72	4.00	1760	21760	20.00	72.40	39.50

Lamella package H = 0,8 m

Type	Inner diameter D m	Width W m	Total height H m	Net weight with TUEBEdek® approx. kg	Total weight (when filled) approx. kg	Water volume m^3	Projected sedimentation surface P FS41.50 m^2	Projected sedimentation surface P FS41.84 m^2
SKR08-15	1.85	1.45	2.50	220	4420	4.20	17.80	9.70
SKR08-22	2.20	1.70	2.80	550	6850	6.30	26.50	14.50
SKR08-30	2.50	1.96	3.10	740	9440	8.70	35.20	19.20
SKR08-39	2.80	2.21	3.30	830	11930	11.20	39.00	21.30
SKR08-49	3.10	2.47	3.60	1250	15690	14.50	49.20	26.80
SKR08-60	3.40	2.72	3.80	1650	19650	18.00	60.70	33.10

Lamella package H = 0,75 m

Type	Inner diameter D m	Width W m	Total height H m	Net weight with TUEBEdek® approx. kg	Total weight (when filled) approx. kg	Water volume m^3	Projected sedimentation surface P FS41.50 m^2	Projected sedimentation surface P FS41.84 m^2
SKR07-10	1.45	1.17	2.00	160	2660	2.50	10.00	6.30

This information has been put together with greatest care. However, any performance data given in this leaflet is subject to compliance with certain surrounding conditions and hence may vary from case to case. Further, we reserve the right to make changes at any time without notice. We strongly recommend (i) reconfirmation with GEA 2H whether this information is still fully valid, before using it for final designs and (ii) to verify performance data taking into account the actual surrounding conditions. GEA 2H takes no responsibility for any consequences due to non-compliance with these recommendations.

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Management System ISO 9001:2008
www.tuv.com ID 9105070210

GEA 2H Water Technologies, Germany, is ISO 9001:2008 certified.

GEA Heat Exchangers

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