

# HUBER CarbonWin® System

*An Innovative Alternative to Primary Clarifiers*

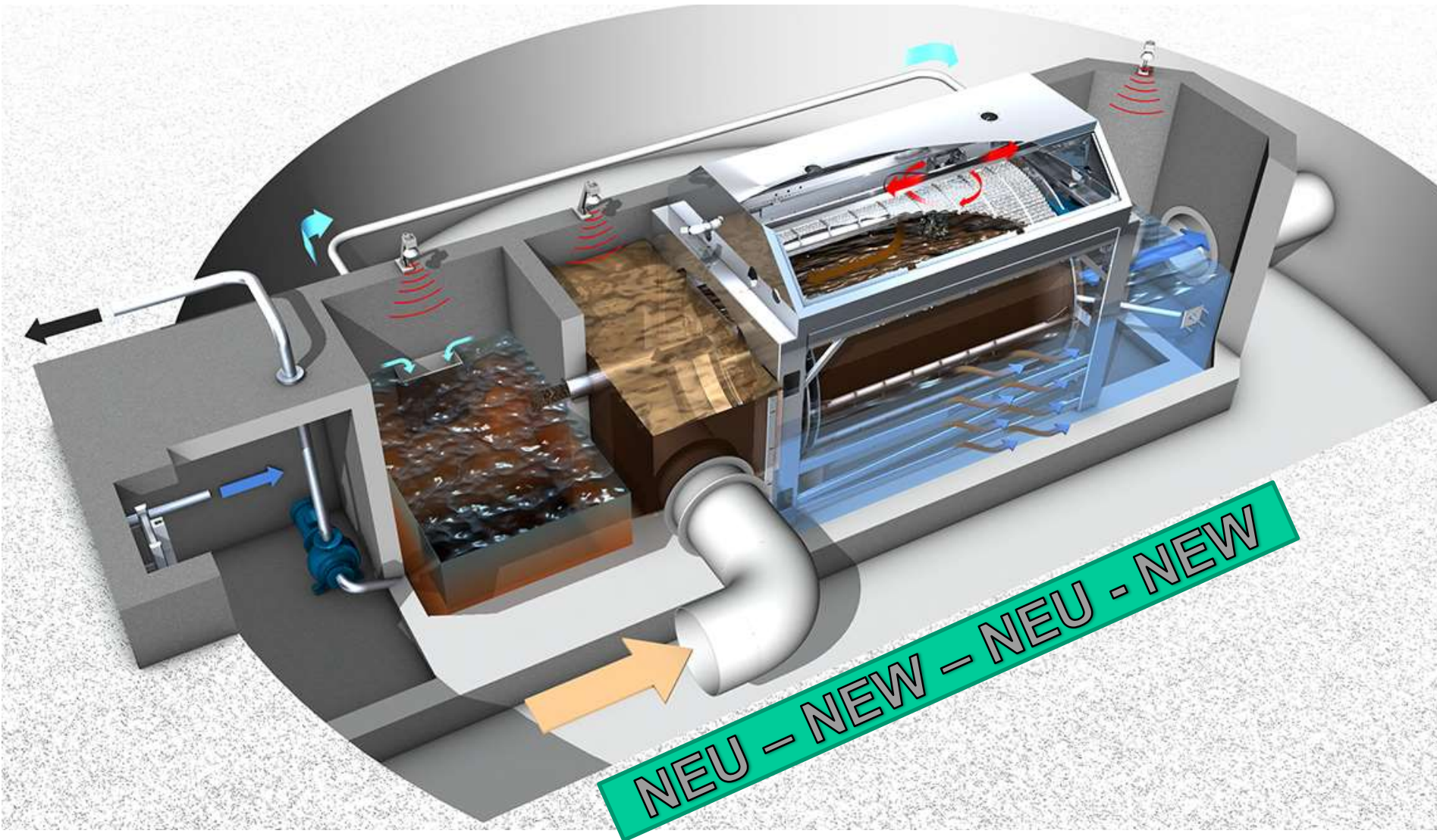
Name \_\_\_\_\_  
Position \_\_\_\_\_  
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## HUBER Experience in that Field:

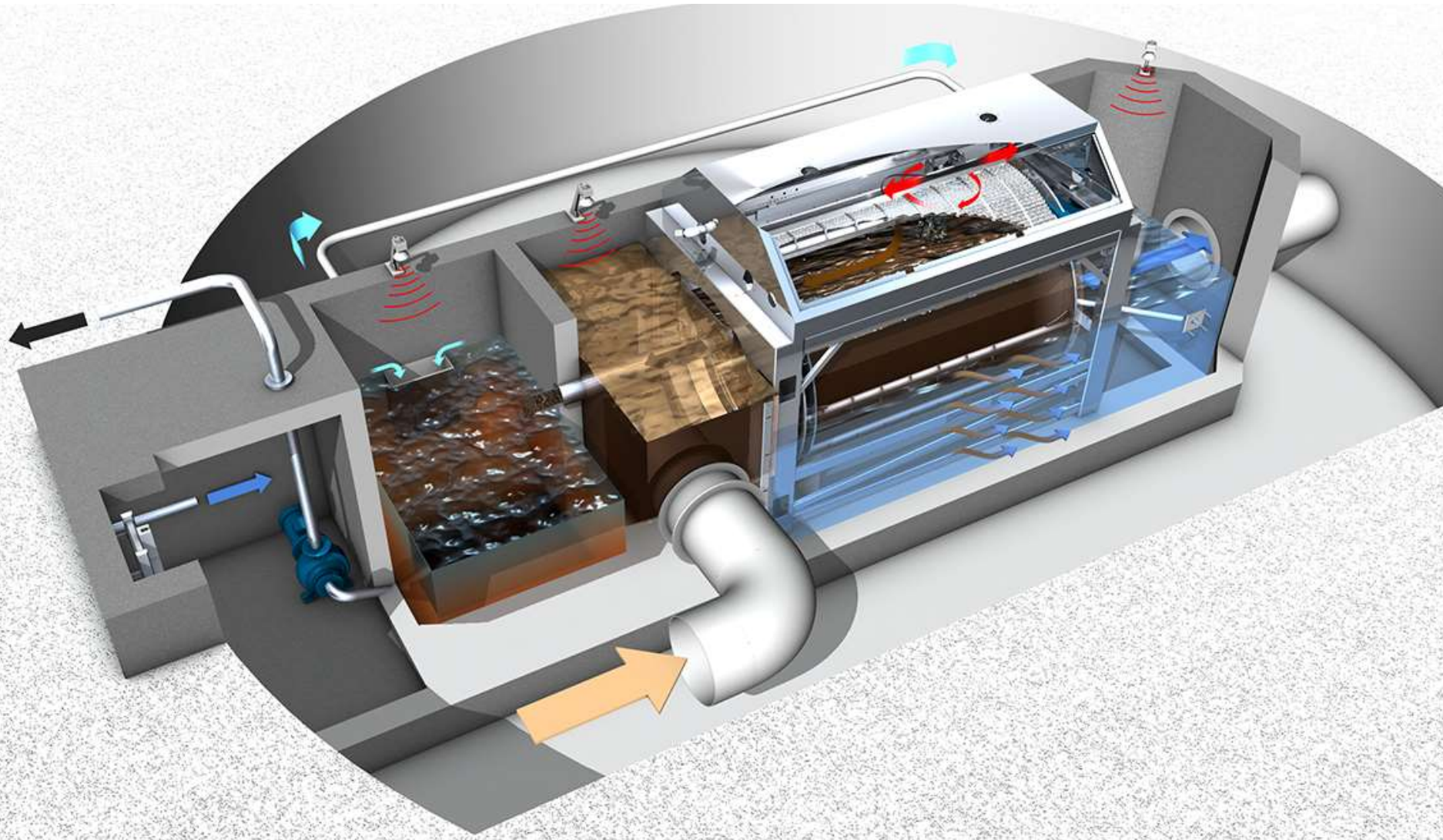
- More than 4500 units of very fine screens installed worldwide
- Since January 1993 Fine Screening Applications available (Ro2 with 1 mm wedge wire sieve)
- Market leader for MBR Screening





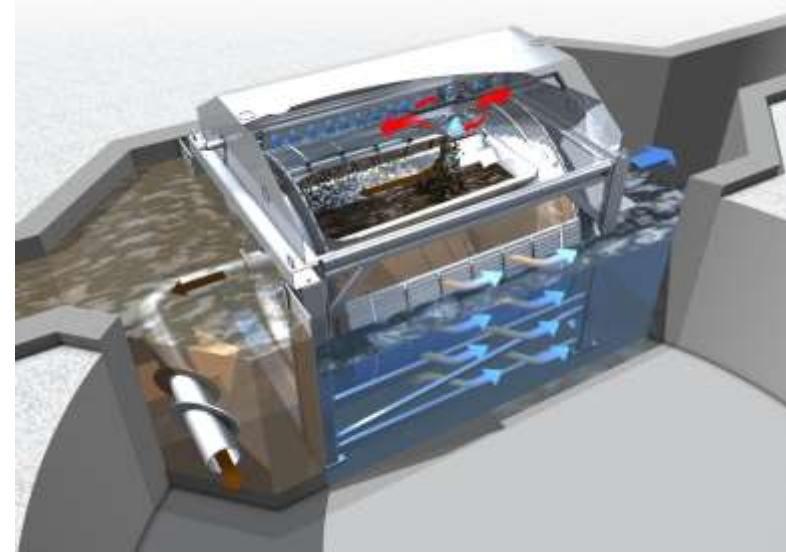
## *Why such an New Technology?*

- Population increase leading to overloaded Wastewater Treatment Plants
- Space limitation and increased cost of land
- Upgrade of WWTPs within existing boundaries
- Change from aerobic to anaerobic sludge process
- Wish for an increased gas yield for a better energy balance and management of the WWTPs



## Basic Technical Features

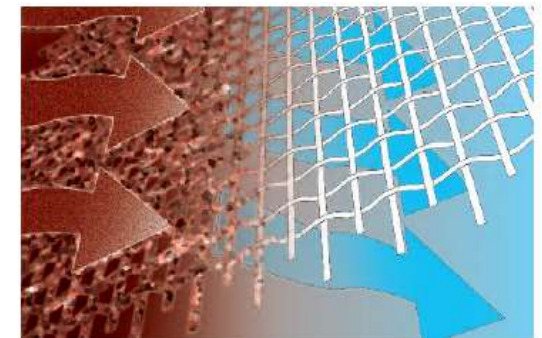
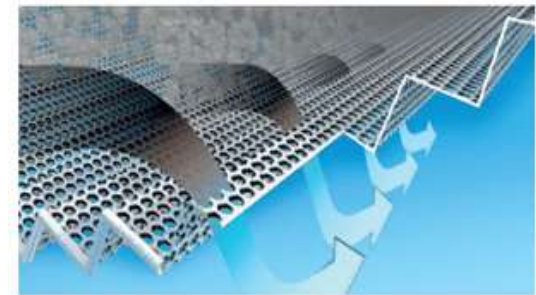
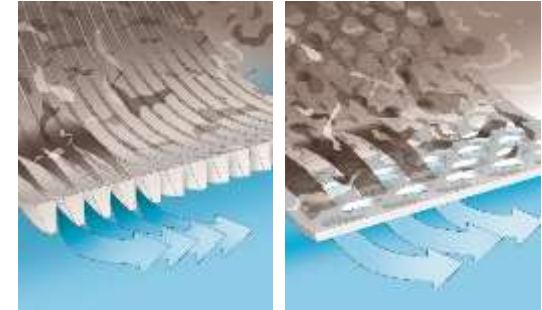
- Throughput up to ~280 l/s (for primary clarifier)
- Stainless Steel AISI 304 or 316
- Drum diameter 1300, 1600 and 2200
- Drum length up to 4000 mm
- Various screening options
- Channel or tank mounted



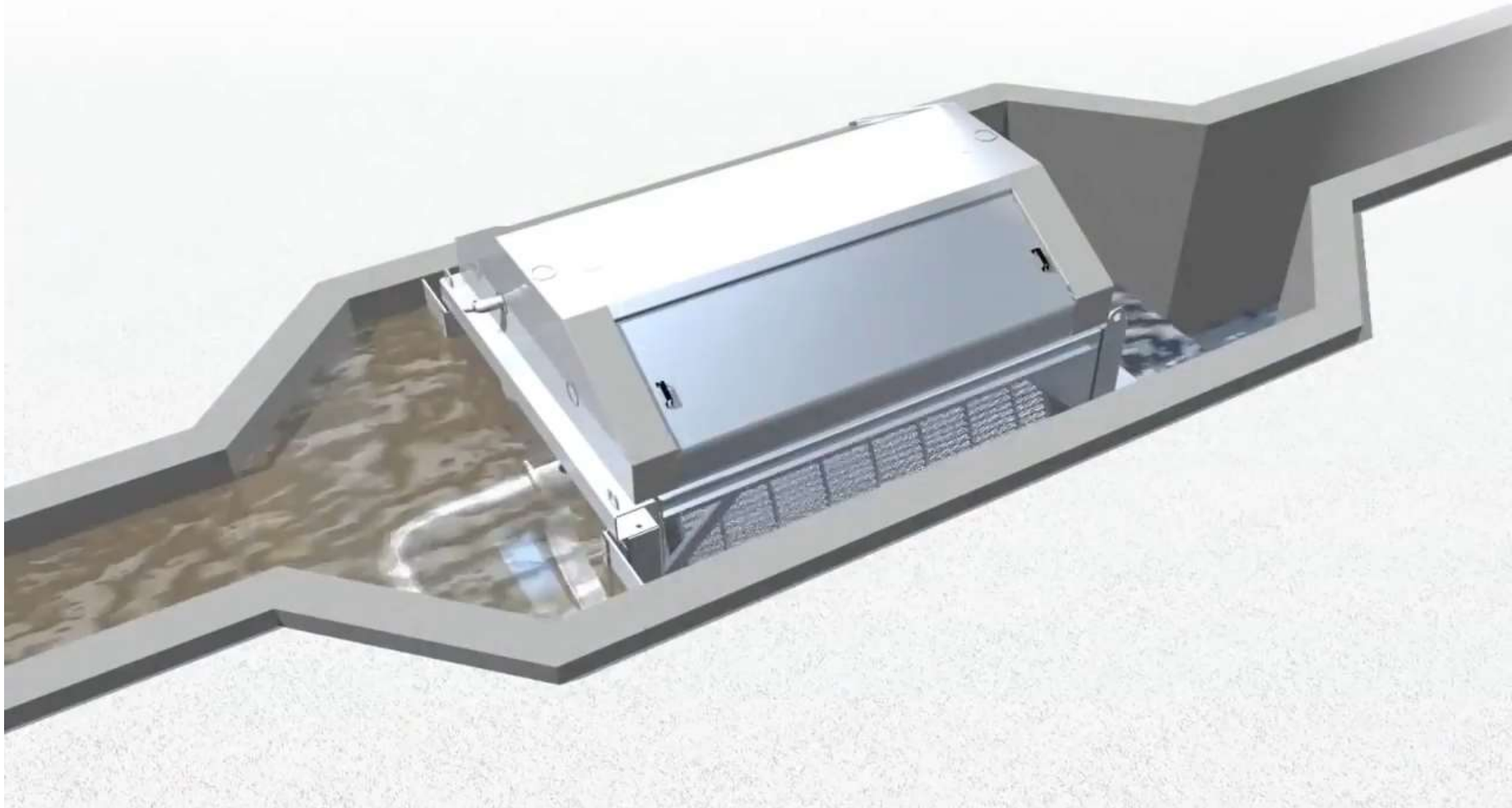
## Basic Technical Features

### Screening Options:

- Wedge Wire: 0.5 / 1 / 2 / 3 mm
- Perforation: 1.5 / 2 / 3 mm
- Star shape perforation: 1.0 / 1.5 / 2 mm
- Plain woven mesh: 0.14 – 1 mm

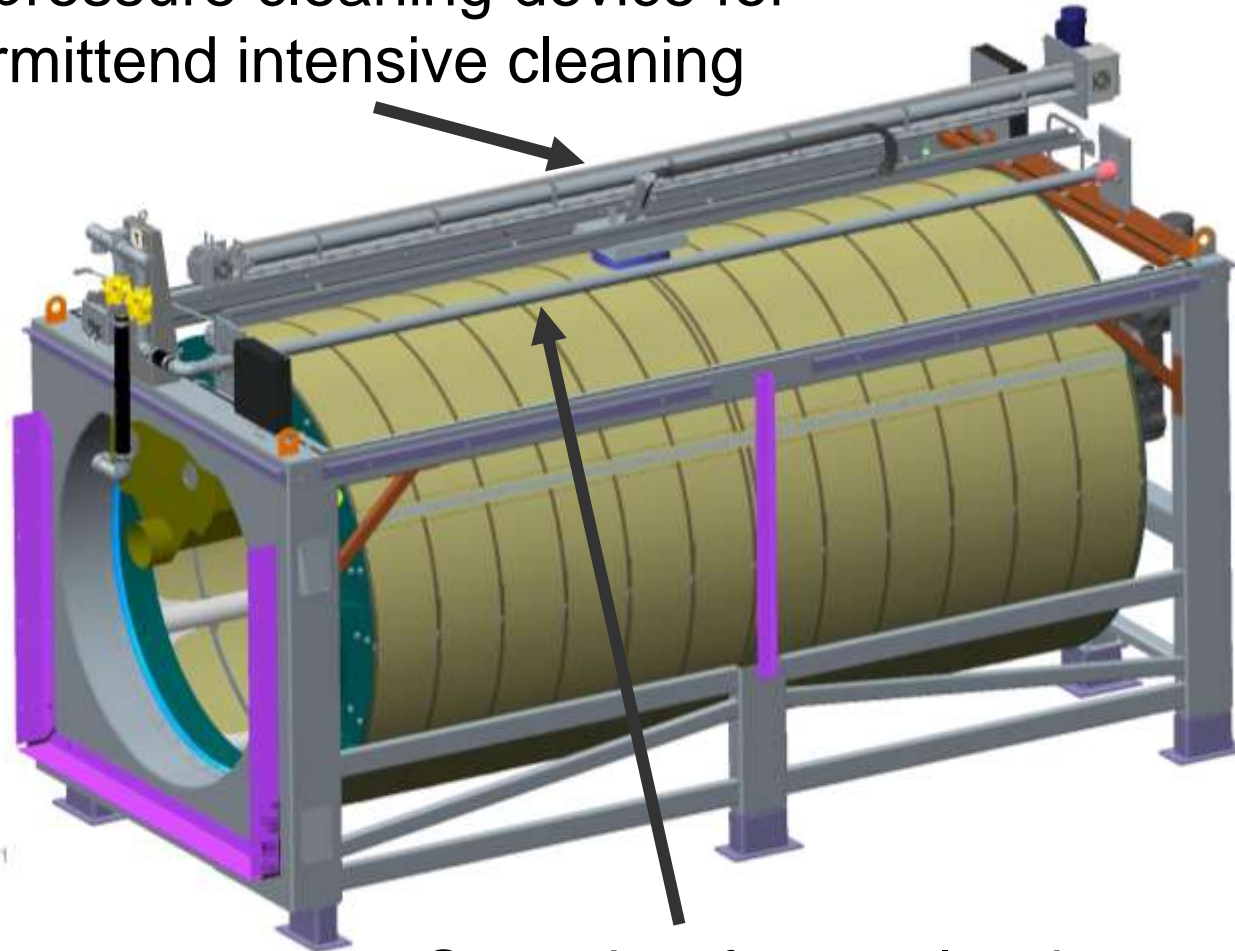


**PRIMARY CLARIFIER APPLICATION  
THE PLAIN WOVEN MESH IS  
MANDATORY**





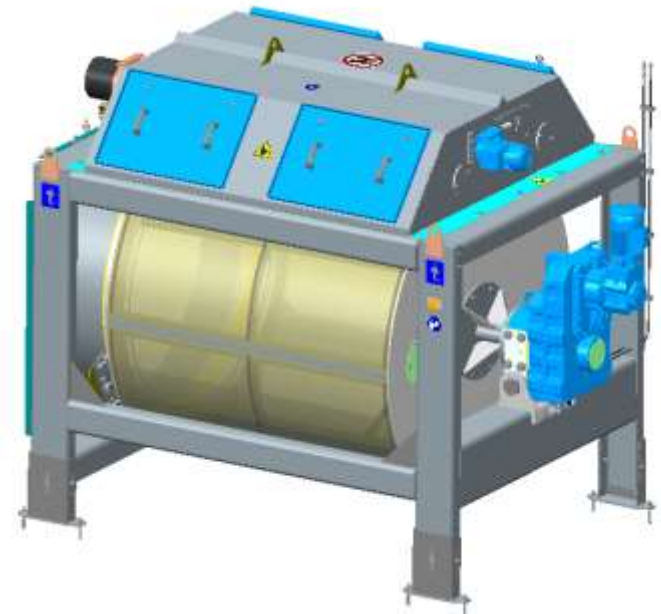
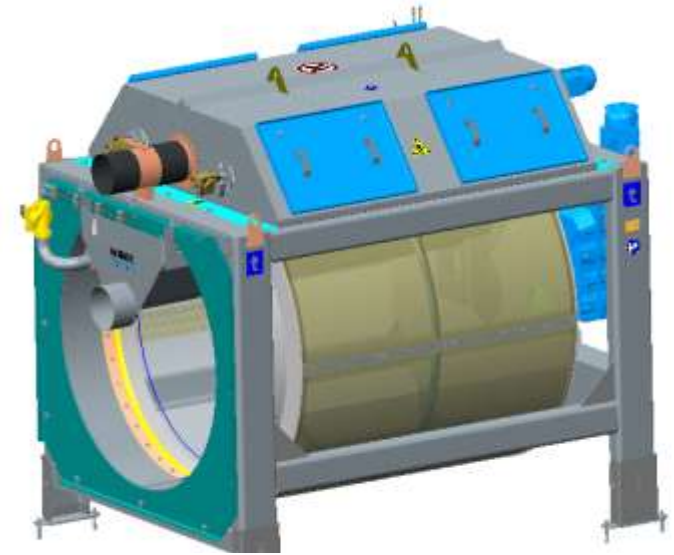
High pressure cleaning device for  
intermittent intensive cleaning



Spray bar for regular drum  
surface cleaning

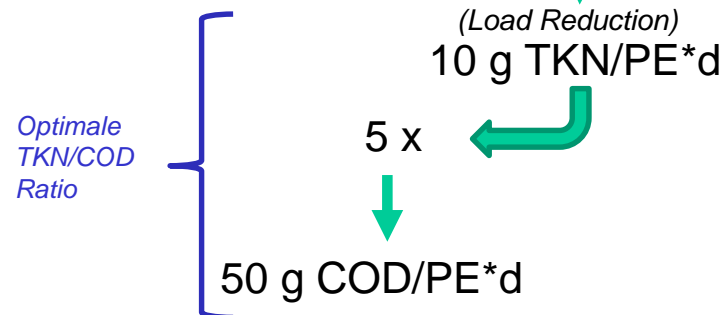
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# HUBER DSL LIQUID – Technical Details





## Max. Feasible COD Reduction



For COD reduction of > 54%  $\rightarrow$  either use of polymer, smaller mesh openings or different technologies such as HuberRoDisc disc filter is necessary

**Functioning Denitrification**  
**with approx. 58 % COD**  
**removal via primary screening**

120 g COD / PE\*d – 50 g COD/E\*d  $\rightarrow$  70 g COD / PE\*d

\*11 g TKN/PE\*d -1 g removed by preliminary treatment

**Project:** *Staßfurt WWTP, Germany*

**Application:** *Replacement Primary Clarifier*

## **Situation:**

- **Plant Capacity** for 40,000 PE with a rain weather peak flow of 256 l/s
- **Two hydraulic streams**
- COD Inlet value for 46.000 PE, N inlet value for 27.000 PE
- Change from **aerobic to anaerobic sludge stabilization**

## **Client / HUBER Approach:**

- Side stream treatment of 100 l/s only
- Enabling the refurbishment of the biological streams and to operate on one stream only

**Project:** *Staßfurt WWTP, Germany*



**Civil works for flow bypassing to the Drum Screen LIQUID**

**Project:** *Staßfurt WWTP, Germany*



**Installation Phase Drum Screen LIQUID Mesh: Project Staßfurt**

*Project: Staßfurt WWTP, Germany*

