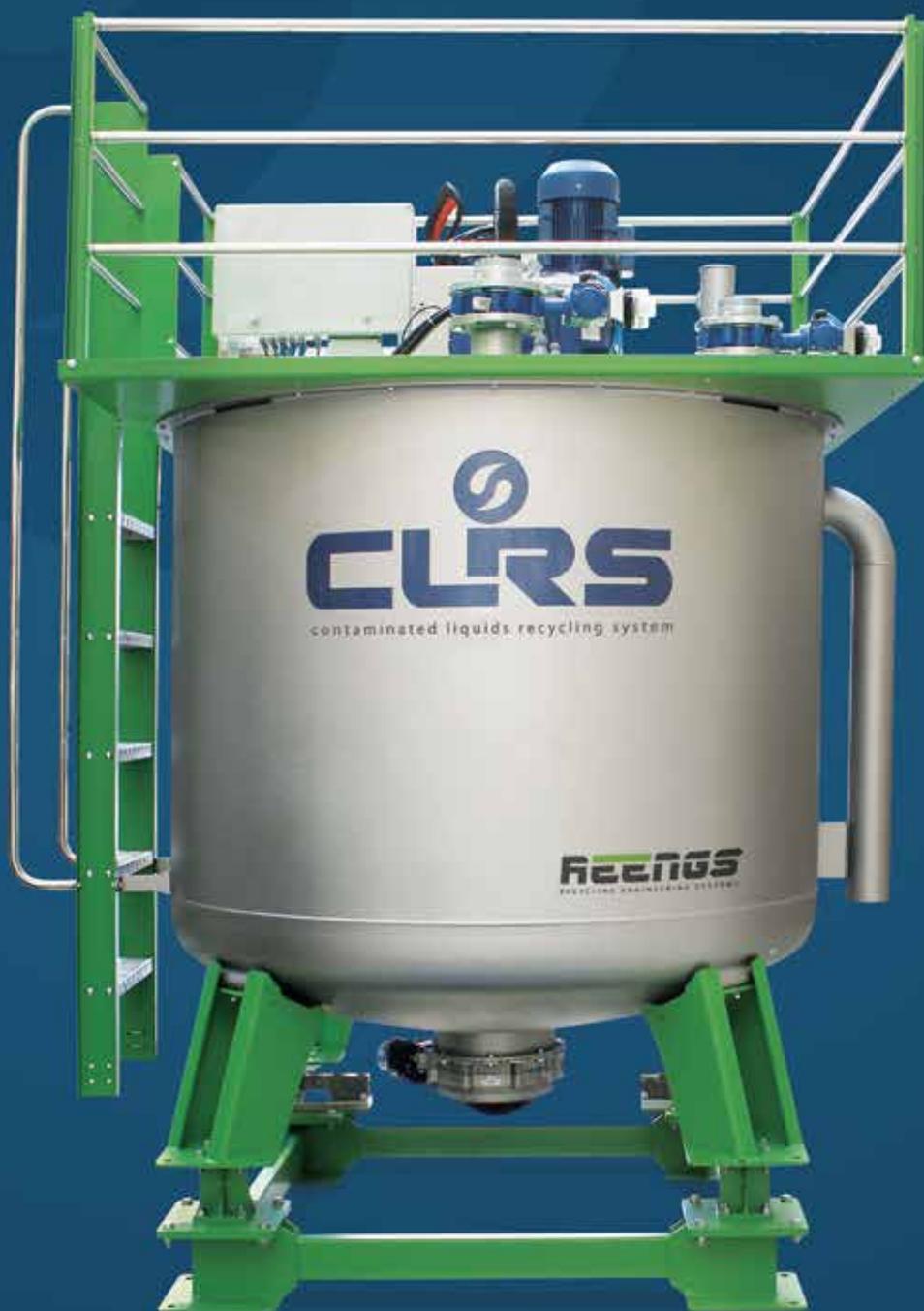


# CLR-S CONTAMINATED LIQUIDS RECYCLING SYSTEM



CLR-S (Contaminated Liquids Recycling System) is designed to contribute to sustainable concrete production and create “Green Plants” by complete utilization of the waste water in batching plants.

Our natural resources diminish each day due to changing consumption habits and increasing of the World’s population. Therefore, it has become vital to reduce material consumption and to efficiently use natural resources by recycling. Especially with the increasing raw material prices and energy costs in the production, the manufacturers have become increasingly expectant of maximum benefit from their plant. It is possible to increase profits by recycling waste material into the system.

The growing environmental awareness, legal regulations and international agreements has led Governments to inspect industrial plants. As a result of this chain Recovery and Recycling has gained more importance.

One of the biggest problems faced by the batching plants, is the problems arising from disposal and non-utilisation of grey water.

At this point, the only system in the World that can determine the density of the grey water in real-time and feed it back to the system is CLR-S.

The CLR System has the ability to measure the contamination level and density in real-time, allowing 100% usage of the grey water and helps prepare the grey-fresh water mixture as defined in EN-1008, where the quality of water to be used in concrete recycling is defined.

The LCA (Liquid Contamination Analyser) inside the system is able to analyse the particles inside the grey water instantly during use of grey water and is also able to feed this information to the plant software in real time.

By using the CLR System, the water and particle amounts inside the grey water can be scientifically measured.

This way, the system is able to instantly re-calculate the amount of aggregate, water and cement to be used and form the mix according to the concrete recipe.

Since there is an automatic data transfer between CLR-S and batching plant software, all results are used by the plant PLC system in real-time.

CLR-S makes it possible to keep the water density under control at all times and also provides instantaneous reporting.

BEFORE



AFTER



BEFORE



AFTER



BEFORE



AFTER



BEFORE



AFTER



BEFORE



AFTER



# A NEW SYSTEM TO FACILITATE SUSTAINABLE CONCRETE PRODUCTION



- CONCRETE INGREDIENTS**
- Water
  - Cement
  - Aggregate and additives

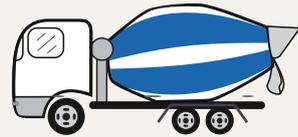
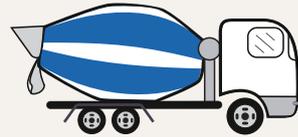
**AGGREGATE HOPPER**



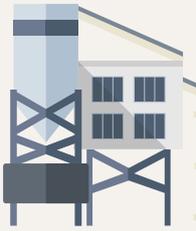
- MOISTURE PROBE**
- Regulates quantity of water according to recipe
  - Minimized risk of quality/slump fluctuations



**Job site**



**Loading concrete from plant**



**CONCRETE MIXER**

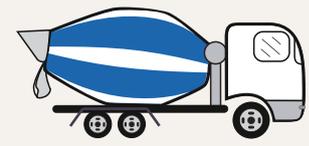


- MOISTURE PROBE**
- Controlling concrete moisture & temperature during production

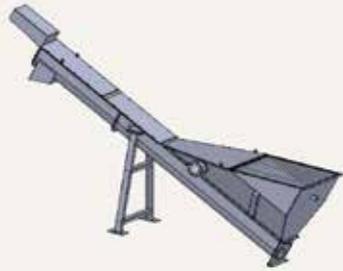


- Saving
- Saving
- Eliminating solid waste

Return from job site with residue concrete

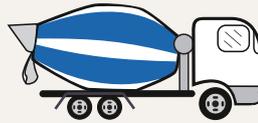


### SCRU.S CONCRETE RECLAIMER SYSTEM



**WASHED AGGREGATES**  
Gain: Size over 0,5mm

GREY WATER



FRESH WATER



#### CLR-S

- Real-time measurement of water density
- Save data for fresh water, total water and particle quantity
- Automatic data transfer to plant PLC
- Recycling of all grey water
- Fast payback

➔ SUSTAINABLE CONCRETE PRODUCTION

g in fresh water usage  
g in aggregate and cement usage  
ation of waste water treatment and  
water disposal costs

BATCH WATER TO THE PLANT  
ACCORDING TO EN 1008



## HOW IT WORKS?



After the first measurement, the amount of fresh water added to dilute the mixture or the amount of dirty water added to increase the density is automatically taken into the tank by the automation system and the mixture is prepared.



Measurement in process



The density of the water inside the tank is kept under control by continuous mixing and measurement.



Batch water to the plant



The grey water with known density is supplied to the system according to the recipe.

# SUSTAINABLE CONCRETE PRODUCTION BY COMPLETE UTILIZATION OF GREY WATER



**ReeNGS**  
RECYCLING ENGINEERING SYSTEMS

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