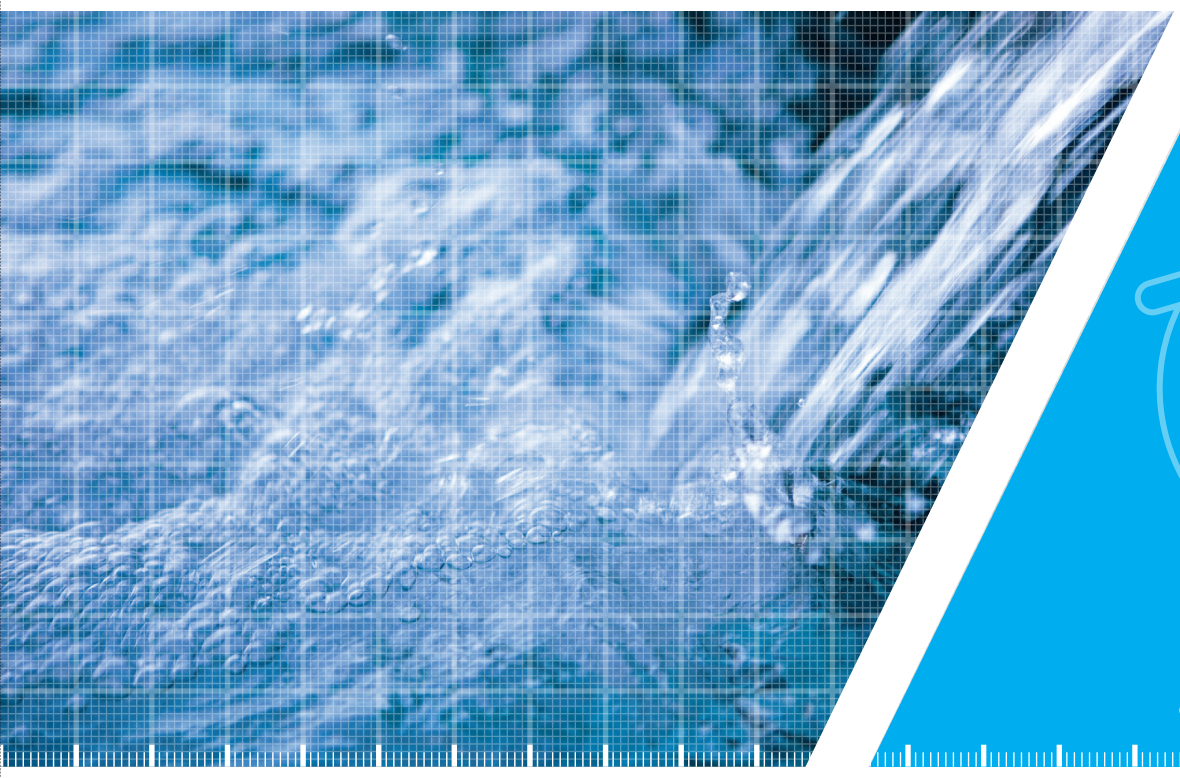
SPALECK Oberflächentechnik

BRIGHTEN UP YOUR FUTURE

PROCESS WATER

RECYCLING



Efficient cleaning of processing liquids

Through the optimum combination of advanced plant technology and individually tailored process technology you can significantly reduce your water and chemicals consumption. At the same time, you contribute to environmental protection and resource conservation.

MADE IN GERMANY

www.spaleck.com

PROCESS WATER

CLEANING PROCESS

SPALECK - responsible treatment of our environment!

Thanks to the innovative SPALECK process water treatment you can efficiently recirculate your compound-water-mixture, saving up to 97% of water, the used compound remains in the process up to 95%. Thus, not only valuable resources are conserved, you also have considerable cost savings.

Abrasion particles of parts and abrasive media as well as unwanted contaminations, such as heavy metals and oils accumulate in the process water of surface treatment machines. In order to fulfill environmental protection and legal requirements, an effective treatment of the processing liquids is essential..

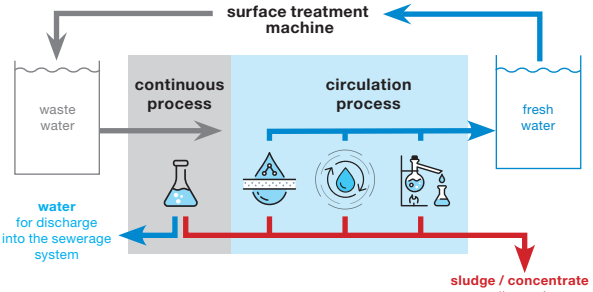
Every process water is different!

In practical tests our process engineers develop customised cleaning procedures and find for you the selection of appropriate recycling techniques.

The program adapts to your needs!

Our process technique differs above all in various principles of sludge separation, in different throughput rates and the degree of automation. **A combination of different treatment procedures is possible.**

PROCESS DIAGRAM



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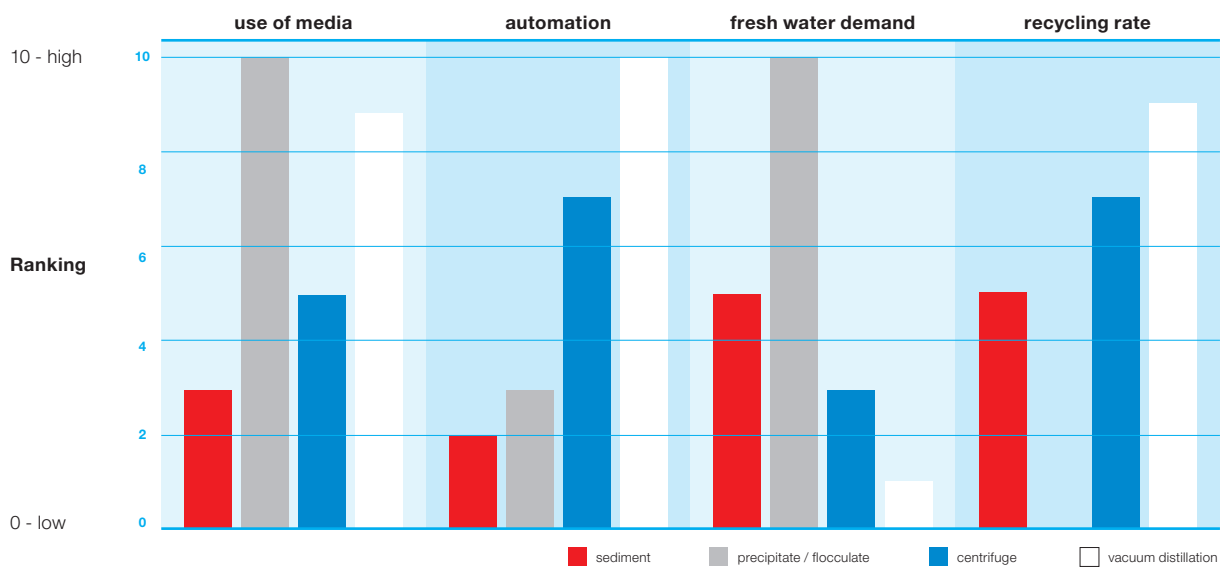
Cleaning procedures in comparison



MECHANICAL / CYCLE

SEDIMENTATION

The easiest method of process water treatment

The process water is conducted from the machine into a cascade tank, inside this tank the water is calmed and the abrasive particles of parts and media are sedimented. The clear water from the last cascade is pumped back into the surface treatment machine. The sediment is removed manually.

- For uncomplicated (slightly charged) process water
- Low investment costs

Throughput
depending on the process: up to 200 l / h

MECHANICAL / CYLCE

CENTRIFUGATION

Recirculation of the water-compound-mixture

Centrifugation is an effective, purely mechanical separation process. The solids settle to the centrifuge wall due to the centrifugal force. The clean water is conducted into the clear water tank or back into the surface finishing machine.

- Most extensive recirculation of the water-compound-mixture
- Only low quantities due to evaporation and carry-over have to be replaced

Maximum throughput
per plant: 400 – 2.000 l / h

CHEMICAL - PHYSICAL / CONTINUOUS

PRECIPITATION / FLOCCULATION

With a large variety of processes

After the treatment the cleaned process water can be discharged into the sewerage system.*

The sludge is dewatered via a chamber filter press and is sent for disposal.

- Before disposal, suspended solids, emulsified oils and dissolved heavy metals are bound and precipitated by flocculation
- Treatment of different processing liquids in one treatment plant is possible

Throughput: 1.000 – 2.500 l / h

* The disposal of processing liquids into the sewerage system is subject to approval and the legally prescribed values.

THERMAL / CYCLE

VACUUM DISTILLATION

For high demands to the cleaned water

Suitable for process water with low solids proportion. It is used for very demanding processes, for example the polishing of precious metals. By evaporation of the processing liquid distillate is produced – this clear water is fully desalinated and returned to the process.

- Up to 97% reuse of the liquid
- Processing at 35 degrees Celsius under vacuum (low temperature distillation)

Maximum throughput: 20 – 2.000 l / h

SPALECK Oberflächentechnik

TECHNICAL CENTRE
PROCESS TECHNOLOGY

Laboratory
Thanks to the addition of suitable compounds to the treatment process the surface result is positively influenced – our dedicated chemists and process engineers develop the appropriate treatment concept for the used process water.

Processing media
Only by interaction of the machine with the right processing media optimum surface finishing results are obtained – we offer you a wide range of abrasive media, compounds and additives.

Demonstration centre
A large part of our machine portfolio can be found in our generously and modern designed demonstration centre – the right type of machine is also available for your application.

Sample processing
Every part is individual and thus, there is no universal solution for the processing – our qualified process engineers develop the optimum process for your parts.

TÜVNORD
TÜV NORD Systems GmbH & Co. KG
Fachbetrieb nach AwSV
tuev-nord.de

Our service for you

- Process water analyses
- Application advice
- Selection of processing techniques
- Trainings
- Development of innovative special solutions
- Continuous development of our portfolio

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