# WALTHER TROWAL!

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## TROWAL CENTRIFUGAL FILTERS Model Range ZM

### WHY EFFLUENT TREATMENT?

After vibratory finishing the effluent (dirty process water) contains abrasive and metal fines, frequently also oil and metal in solution. For this reason, the effluent must be cleaned before going to drain or being recycled back to the finishing process.

### **CENTRIFUGAL FILTERS**

Abrasive and metal fines as well as trapped oil are separated from the process water by way of centrifugal force and can be removed as semi dry sludge. The cleaned process water can be re-used and is pumped back to the finishing machine.

### RECYCLING IS "IN" ...

The recycling of the process water from the finishing process does not only reduce the consumption of water (up to 98 %), but it also reduces the usage of compound (up to 90 %). In addition, it reduces the cost of waste disposal.

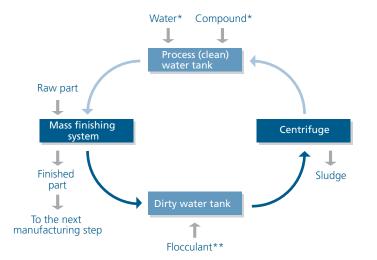
### WE IMPROVE SURFACES





#### ZM 03-ECO 1 ZM 03-FL Capacity (l/h) 1,000 1,000 Capacity of sludge basket (I) 14 14 Centrifugal rating (g) 2,012 2,012 Dirty water tank (I) 200 300 150 Process water tank (I) Dimensions (mm) (LxBxH) 1,400 x 800 x 1,600 1,400 x 1,200 x 1,600 Average power consumption (kW) 15 15





 Because of process water carryout and evaporation water and compound must be continuously replenished
 \*\* Flocculants can be dosed into the contaminated water to form larger, easier to remove, flocs of emulsified grease and oil

→ contaminated process water 

→ cleaned process water

FUNCTIONAL DIAGRAM OF BASKET CENTRIFUGE

# Cleaned process water Peeling Ube Sludge Sludge basket

### CLEANING BY CENTRIFUGAL FORCE

With the centrifugal filter technology solid fines are removed from the process water with a centrifugal force which is up to 2,012 times higher than the gravity of the earth. Oil and / or extremely fine solids < 1  $\mu$  can be removed by adding flocculents. The compound utilized for the finishing operation remains largely in the process water for re-use in the finishing process.

### BASKET CENTRIFUGES, MODEL RANGE ZM

The models ZM 03-ECO 1 and ZM 03-FL are characterized by their sturdy design and ease of operation. The sludge basket is removed and emptied manually. It has a capacity of 14 liters allowing the separation of up to 19 kg of sludge in one cycle. Both models are equipped with a PLC for fully automatic operation including imbalance control and system run monitoring.

### BASKET CENTRIFUGE MODEL ZM 03-ECO 1

This highly cost effective unit can serve up to two vibratory finishing systems running standard mass finishing processes. The ideal equipment for standalone finishing systems.

### BASKET CENTRIFUGE MODEL ZM 03-FL

The universal modular system for use with multiple vibratory finishing systems. Can be easily upgraded with process related options like pump stations and process water cooling systems.

## WALTHER TROWAL!

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