



### FLOTTWEG TOUCH CONTROL

Intelligent Automation for Your Decanter



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**Everything Under Control** 

Monitoring the individual functions of your centrifuge (e.g. adjusting the differential speed) has a considerable impact on your process results – and thus on your overall costs.

The revised Flottweg Touch Control is a control and regulation system for optimal automation of your decanter. It has been developed for all municipal and industrial waste water applications.

The system consists of a control and an operating unit, thus improving your flexibility during the installation and facilitating the integration in your existing system.

In combination with a sophisticated user interface, the Flottweg Touch Control allows for smooth operation of your Flottweg Decanter and optimum solids separation.

#### Your benefits

- Complete control of your process parameters at any time – and thus optimum process results
- Easy integration into existing systems
- Maximum flexibility during installation due to separate control and operation units
- User friendly due to the 12" color screen and a sophisticated user interface
- Complete monitoring and safety technology included



### A PERFECT CONTROL SYSTEM PROVIDED BY THE CENTRIFUGE MANUFACTURER



Everything that is necessary for the operation of the centrifuge is delivered. Included is a complete control system for quick and easy integration into the system as well as the monitoring system for automatic centrifuge monitoring. All components are provided by the Flottweg Automation Technology Department and are thus optimally adapted to the centrifuge.



Everything under control: All important machine parameters can be seen as an overview

#### **Decanter monitoring**

#### Bowl speed

- Scroll differential speed
- Scroll torque
- Power consumption of the bowl drive
- Vibration monitoring
- Monitoring of the temperatures of the main bearings
- Operating hours

# Control system and regulation

- Bowl speed
- Frequency inverter of the bowl drive
- Frequency inverter of the scroll drive
- Safety-based evaluation of the process control system
- Regulation of the differential speed depending on the scroll torque



### **INTEGRATION POSSIBILITIES** Flexibility for Integration Into Your System

The operating unit and the control unit of the Flottweg Touch Control System are connected by a data line.

Due to the possible physical separation of the two units, the system can be installed in three different versions.

For example, the operating unit can be embedded into the door of the main control cabinet. The control unit arrives pre-assembled on a mounting plate. Your benefit: Time consuming cabling during the installation phase can be eliminated.

INFO

**TECHNICAL** 

It is possible to utilize various frequency converters with the Flottweg Touch Control, such as:

- ABB (e.g. ACS 800, 550)
- Danfoss (e.g. VLT FC302)
- Schneider Telemechanique / Square D (e.g. Altivar 61, 71)

Other suppliers are available by request.



Example of a control cabinet configuration (diagram)



Example of a local operator panel configuration



### **OVERVIEW** of Different Integration Versions



#### **VERSION 1**

The operating unit and the control unit are completely integrated into a single control cabinet.



#### **VERSION 2**

The operating unit is integrated into a local control panel for easy handling.



#### **VERSION 3**

Operating unit and control unit are integrated into a local control panel.



## FEATURES OF THE FLOTTWEG TOUCH CONTROL

The Flottweg Touch Control has been developed in compliance with the high demands of current industry standards. For use in particularly rough environments (heat, humidity, environmental contamination, etc.), special designs at the control unit and the operating unit are available. The control unit can be used for all Flottweg Decanters and Tricanters® with Simp Drive® systems if the machines do not have to correspond to ATEX regulations. Control systems for machines which correspond to ATEX regulations are available as necessary.



### COMMUNICATION

communication method	hardware cabling
incoming signals	<ul> <li>external start</li> <li>control voltage on</li> <li>solids conveying active</li> </ul>
outgoing signals	<ul> <li>release product feed</li> <li>open the diverter valve</li> <li>start the solids discharge (conveyor, pump)</li> <li>decanter flushing</li> <li>common fault</li> </ul>



#### **OPTIONAL DATA LINKS**

communication method	PROFINET     option: Profibus DP	
size	<ul> <li>32 bytes undirectional</li> </ul>	
binary (BOOL)	<ul> <li>operating data and faults</li> </ul>	
analog (INT)	<ul> <li>bowl speed</li> <li>scroll differential speed</li> <li>scroll torque</li> <li>bearing temperature</li> </ul>	







#### **CONTROL UNIT**

interface	Ethernet (RJ45)
nominal voltage	24V DC
tolerance	20,4V – 28,8 V DC
typical power consumption	approximately 300 mA
mounting	on a TS35 rail

#### **OPERATING UNIT**

display	12" Touch
model	LCD-TFT analog resistive
resolution	1280 x 800 pixels (Wide XGA)
backlight	MTBF ca. 80,000 h
interface	Ethernet (RJ45)
nominal voltage	24 V DC
tolerance	20,4 V – 28,8 V DC (-15% + 20%)
typical power consumption	approximately 1,3 A
internal fuse protection	electronic
operating temperature	0-50°C (out of direct sunlight)
internal protection	front IP65 / rear IP20
mounting	embedded in the front door of the control cabinet

#### **BASIC VERSION ENVIRONMENT**

air pressure	795 – 1080 mbar
air humidity	<ul> <li>10 – 90% relative atmospheric moisture without condensation</li> <li>10 – 60% relative atmospheric moisture with condensation</li> </ul>
installation	indoors
ambient air	in compliance with DIN EN 60721-3-3 class 3C1
critical concentrations	SO <sub>2</sub> : <0.05 ppm / H <sub>2</sub> S: <0.01 ppm / NH <sub>3</sub> : < 0.3 ppm

#### SPECIAL DESIGN ENVIRONMENT

ambient air	in compliance with DIN EN 60721-3-3 class 3C3
critical concentrations	$SO_2$ : <2.0 ppm / $H_2S$ : <2.5 ppm / $NH_3$ : < 10 ppm



# Flottweg Separation Technology – Engineered For Your Success



Flottweg SE Industriestraße 6-8 84137 Vilsbiburg Deutschland (Germany)

Tel.: +49 8741 301-0 Fax: +49 8741 301-300

mail@flottweg.com www.flottweg.com