

Digitization at Rösler

Rösler Smart Solutions – Digitales Prozesswassermanagement

RÖSLER[®]
finding a better way ...

 **SMART
SOLUTIONS**

Mass Finishing

Shot Blasting

AM Solutions

Rösler Oberflächentechnik GmbH
Eva Konitz – Team Leader Sales and Engineering
Sales Mass Finishing

AGENDA

1

COMPANY

2

MOTIVATION AND TARGETS

3

RÖSLER SMART SOLUTIONS

4

DIGITAL MASS FINISHING

5

**POSSIBILITIES FOR
RETROFIT**

1. Company



+15.000
Media & Compounds



+15
Training seminars

15
Locations
+150
Distributors globally



1.566
Employees
worldwide



95.000 m²
Production
& Development
at the German
locations

Quality
Made by Rösler



Automation &
Digitization

**Global
Customer
Experience
Centers**

Mass Finishing
Shot Blasting
AM Solutions

**+80
Years**

Experience across
many industries



24h
Service



302
Mio €
Turnover

2. Motivation and targets

The age of digitization

„Digitization doesn't need people, rather it expands their possibilities.“

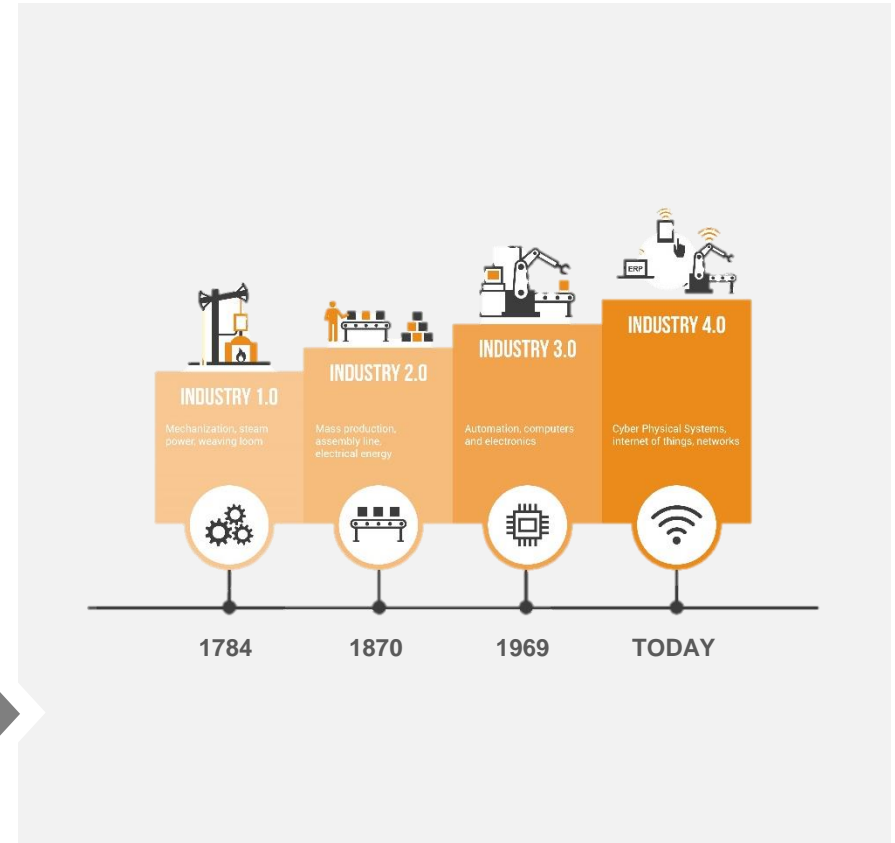
Peter Bartels (German Politician)

2. Motivation and targets

The age of digitization

Profit for the customer

- ▶ More efficient and faster workflows
- ▶ Clarity of work processes
- ▶ Improved service performance
- ▶ Optimized use of resources and cost reduction



3. Rösler Smart Solutions

Digitization at Rösler



Process and
cost
transparency

Active
monitoring with
recommend-
ations for
action

Fast reaction in
case of
differences or
disturbances
due to data
archiving

Intelligent
process and
system control
with service life
forecasts

Optimized use
of resources
and cost
reductions



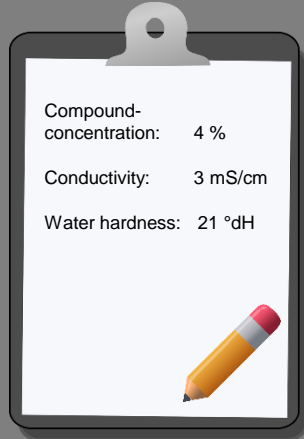
Reducing the complexity of process water management by digital support

4. Digital Mass Finishing

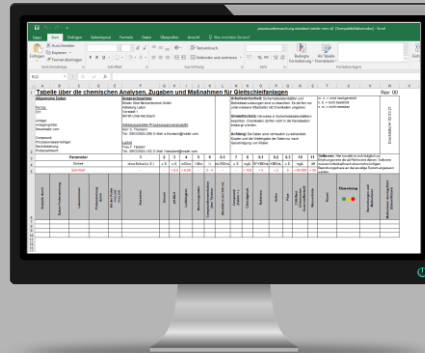
Digital Process Water Management – the way to Rösler Smart Solutions



Hand notes



Simple tables on PC



digitization with recommendations for action

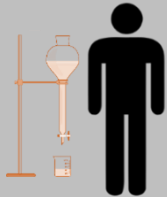


4. Digital Mass Finishing

Digitization packages

Advanced

- Manual measuring of process water parameters
- Monitoring of the parameters
- Recommendations for the control of the process water



Comfort

- Advanced
- + Sensors
 - + Process water parameters
 - + Mass finishing process
- + Automatic control of the process based on the recommended actions



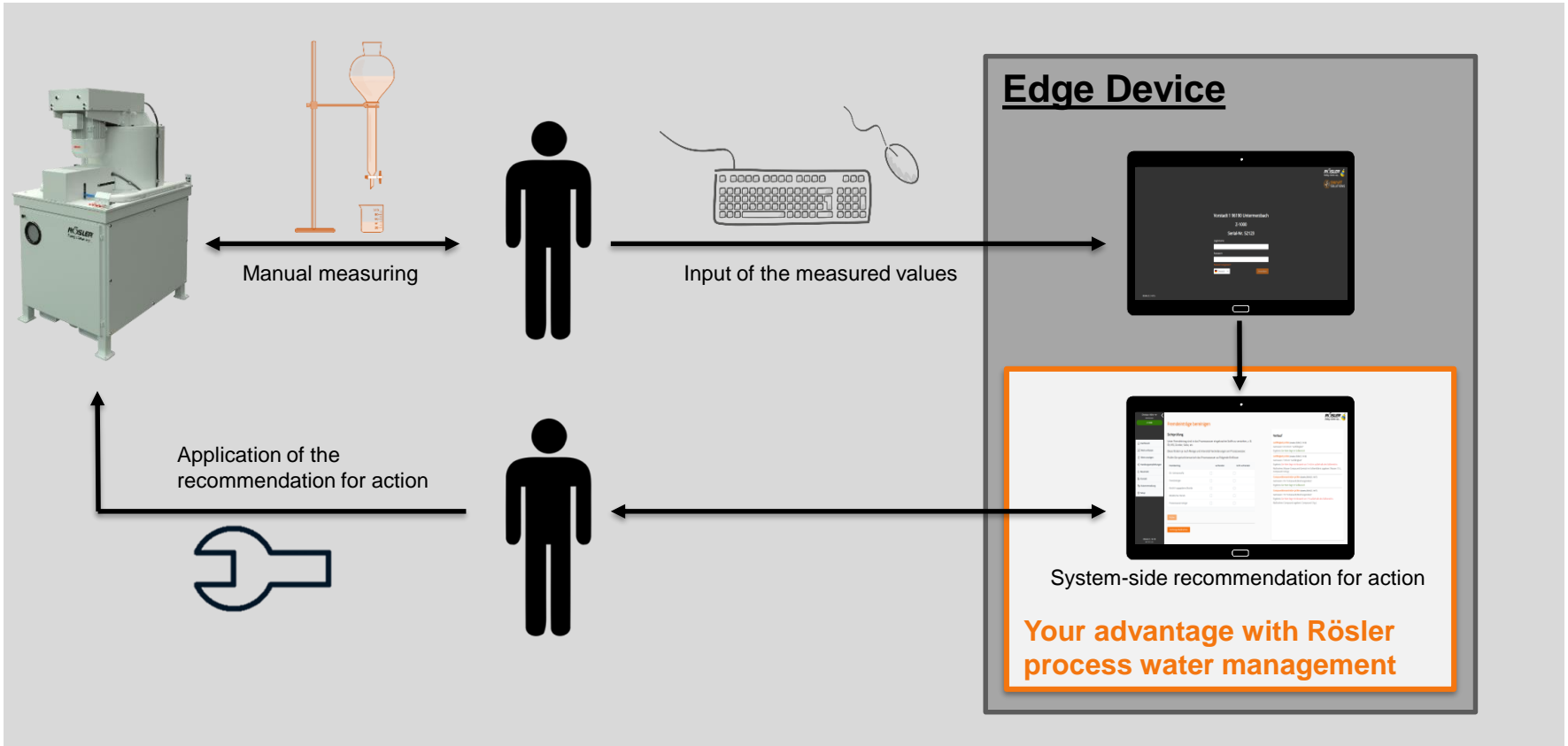
Premium

- Comfort
- + Cloud based
- + Online exchange regarding the process
- + Worldwide access



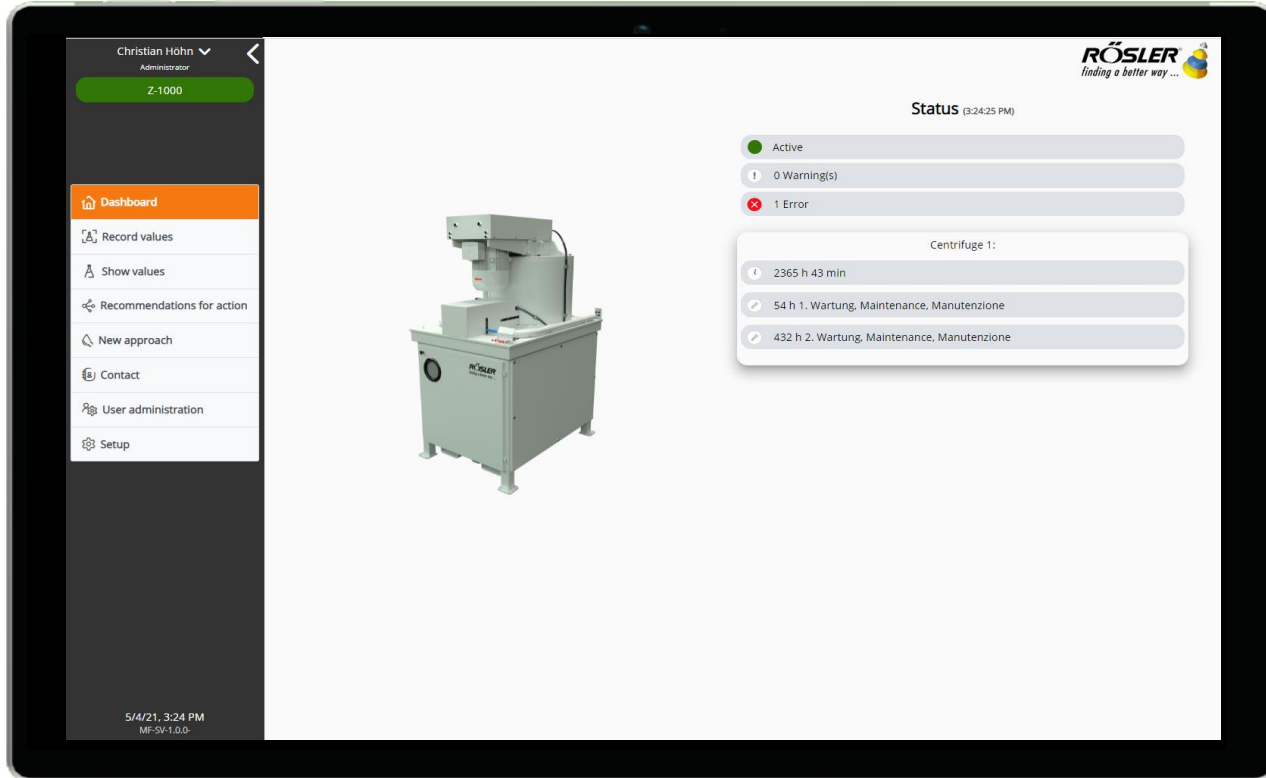
4. Digital Mass Finishing

Digital Process Water Management - Advanced



4. Digital Mass Finishing

Visualization Rösler Smart Solutions



4. Digital Mass Finishing

Visualization Rösler Smart Solutions

Christian Höhn
Administrator

Z-1000

- Dashboard
- Record values
- Measured values**
- Operating materials
- Show values
- Recommendations for action
- New approach
- Contact
- User administration
- Setup

5/4/21, 3:26 PM
MF-SV-1.0.0

RÖSLER
finding a better way ...

Record measured values

General

Source of sample: User | Date of sample: 05/04/2021 03:25 PM

Measured values

pH value: 12.0 | Conductivity: 6.2 mS/cm | Chloride content: 0 - 500 mg/L

Note: Input is outside of tolerance range: 8 - 10 | Note: Input is outside the target range: 0 - 6 mS/cm.

Compound (refractive index): 0 - 10 % | Compound (titration): 0 - 10 %

Bacteria: 0 - 7 10⁶ x KBE/mL | Yeasts: 0 - 6 10⁶ x KBE/mL | Fungi: Please select

COD value: 0 - 250 g/L | Water hardness: 0 - 50 °dH | B*IT content: 0 - 250 mg/L

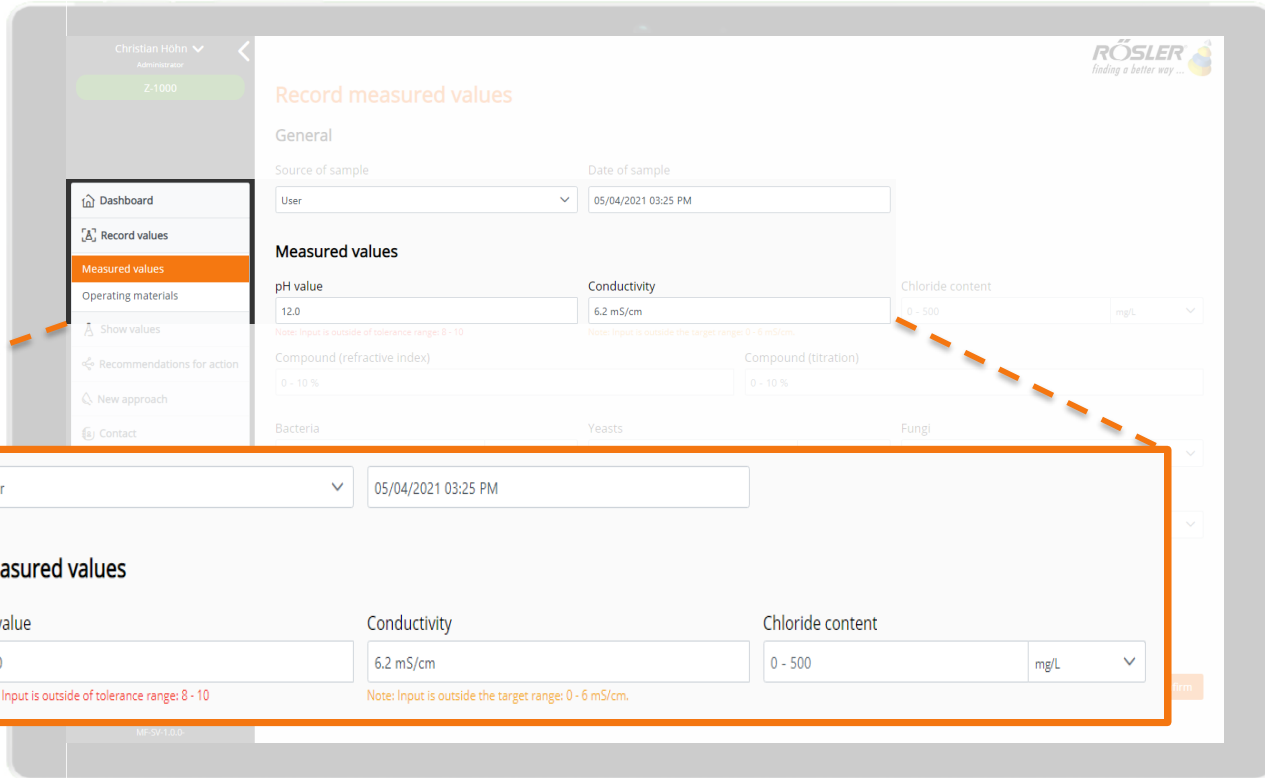
Description of process water

Odor: Please select | Appearance: Please select

Confirm

4. Digital Mass Finishing

Visualization Rösler Smart Solutions



Record measured values

General

Source of sample: User | Date of sample: 05/04/2021 03:25 PM

Measured values

pH value: 12.0 | Conductivity: 6.2 mS/cm | Chloride content: 0 - 500 mg/L

Notes: Input is outside of tolerance range: 8 - 10 | Note: Input is outside the target range: 0 - 6 mS/cm

Compound (refractive index): 0 - 10 % | Compound (titration): 0 - 10 %

Bacteria | Yeasts | Fungi

Measured values (Zoomed View)

Source of sample: User | Date of sample: 05/04/2021 03:25 PM

pH value: 12.0 | Conductivity: 6.2 mS/cm | Chloride content: 0 - 500 mg/L

Note: Input is outside of tolerance range: 8 - 10 | Note: Input is outside the target range: 0 - 6 mS/cm

4. Digital Mass Finishing


Visualization Rösler Smart Solutions

Christian Höhn
Administrator

Z-1000

- Dashboard
- Record values
- Show values
- Measured values
- Table**
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5/4/21, 3:30 PM
MF-SV-1.0.0



Measured values

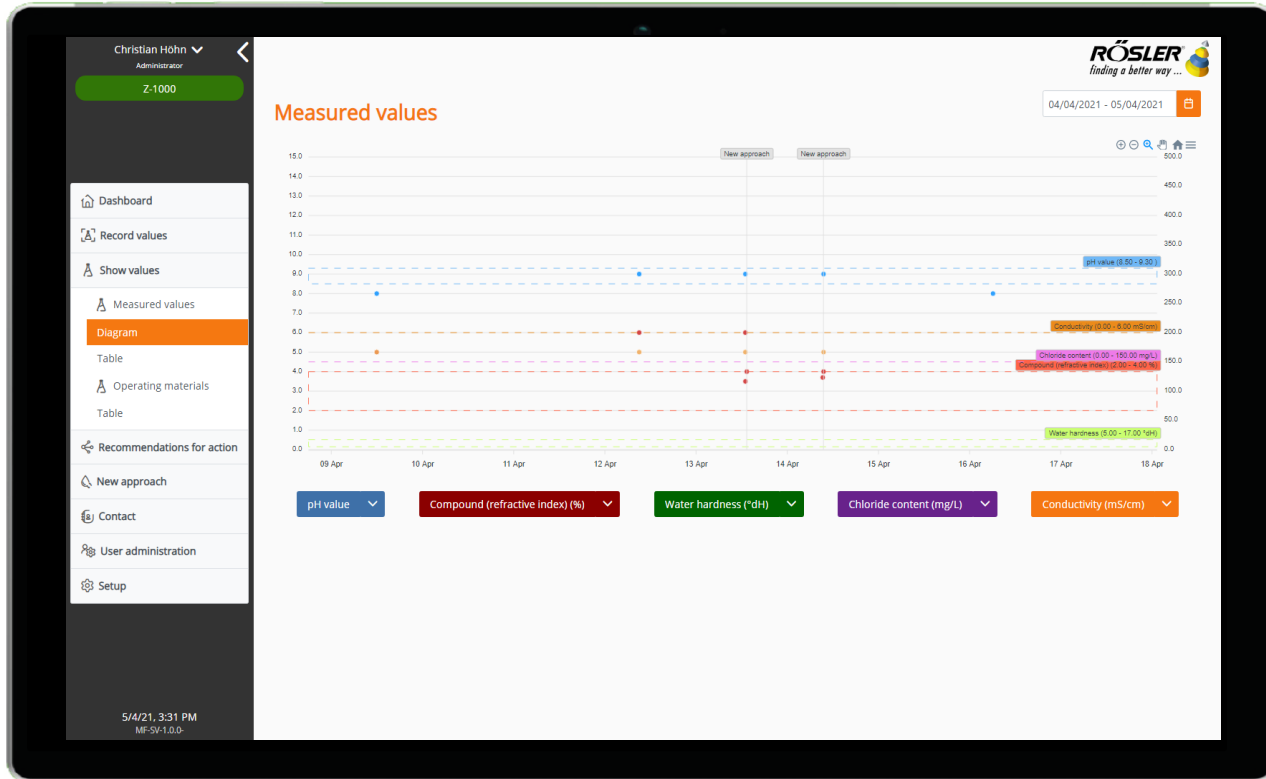
13 Columns selected Export Information

Date of sample	Source of sample	pH value	Conductivity ms/cm	Chloride content mg/L	Compound (refractive index) %	Compound (titration) %	COD value g/L	Water hardness °dH	Bacteria 10 ⁶ x KBE/mL	Yeasts 10 ⁶ x KBE/mL	Fungi	B/T content mg/L	Odor	Appearance
3/15/21, 7:00 AM	User	8	5.2		3.6			14						
3/12/21, 11:54 AM	User	9.3	4	78.4	5	3.6		13	0	0	No infestati...		typical inherent odor	transparent
3/11/21, 2:34 PM	User	9	5.5		4			16						
3/10/21, 10:59 AM	User	9.3	4.4	81.3	5.5	3.6	6	13					typical inherent odor	turbid
3/9/21, 10:54 AM	User	9.8	4	74.3	5	3.4	5.6	13	0	0	No infestati...		typical inherent odor	turbid
3/8/21, 10:53 AM	User	9.5	3.2	69.3	5	3.4	5.8	13					typical inherent odor	transparent
3/5/21, 10:52 AM	User	9.5	3.3	64.3	4.6	3	3.7	13	0	0	No infestati...		typical inherent odor	turbid
3/4/21, 10:51 AM	User	9.8	2.8	50.8	4.6	2.7	3.6	13		0	No infestati...		typical inherent odor	turbid
3/2/21, 10:56 AM	User	10.5	1.5	8.1	3.7	3	3.4	13	0	0	No infestati...		typical inherent odor	turbid
New approach on 3/11/21 Note: Test für Fa. Hubert Stuken														
11/18/20, 3:00 AM	Rösler	8.4	5.59	93	4.8	4.7	30.74	7	2	1.9				
10/5/20, 4:00 AM	Rösler	8.3	3.9	90	2.8	2.8	19.96	7	3	1.9				

2 of 11 1 2 3 4 5 15

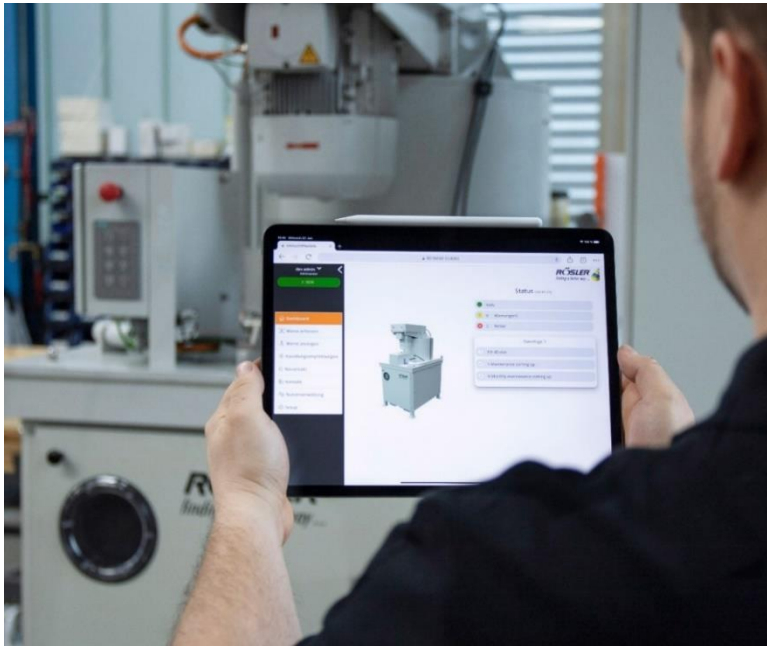
4. Digital Mass Finishing

Visualization Rösler Smart Solutions



4. Digital Mass Finishing

Benefits of Rösler Smart Solutions

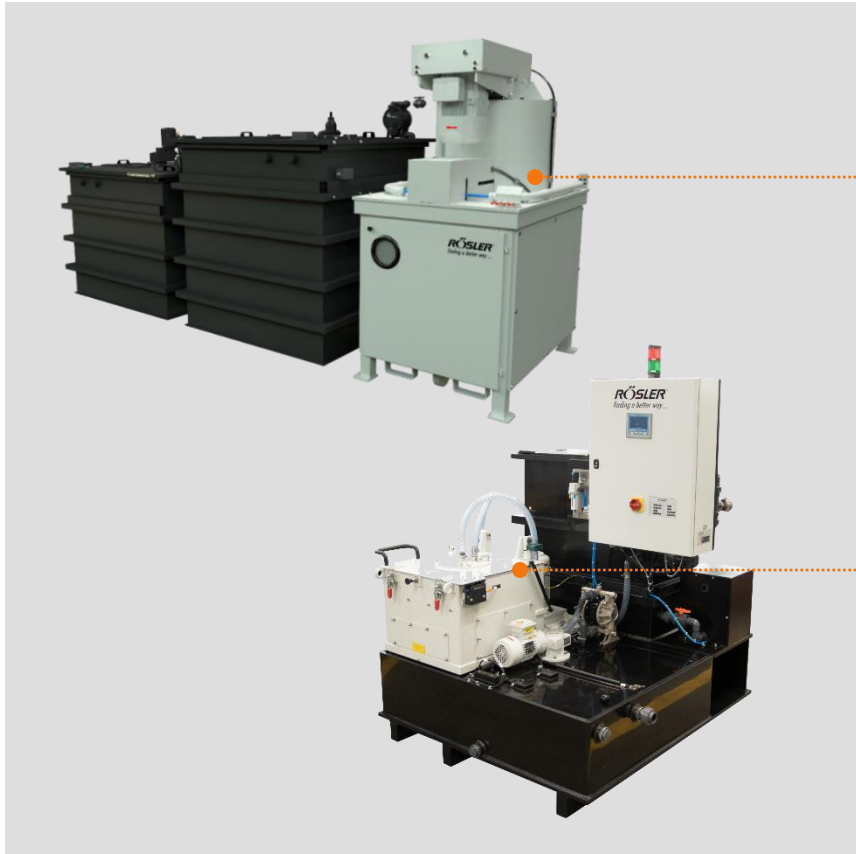


The user benefit:

- ▶ Optimal planning and control of the process water cycle
- ▶ Savings in external process water analyses
- ▶ Saving of “action in case of urgency“ of the Rösler application engineers
- ▶ Avoidance of unplanned new approach due to early identification of differences
- ▶ Avoidance of production downtimes due to unplanned new approach
- ▶ Increase in process stability
- ▶ Achievement of consistent part quality

5. Possibilities for RetroFit

Customer requirements



Process water systems:

Z 1000 ASS-II-Turbo

+ S7-1200 or S7-1500 control system

Z 800 incl. Clear water tank and automatic dosing unit

+ S7-1200 or S7-1500 control system

4. Possibilities for RetroFit

Customer requirements



Requirements

- ▶ Firmware Upgrade for the S7-1200
- ▶ OPC-License
- ▶ Package Advanced
- ▶ Installation of the IPC and training for the customer
- ▶ Online analysis via Secomea

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