wazzup

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4 Endress+Hauser and the Cape Town water crisis

South Africa, a water scarce country, should consider its water supply as its most valuable resource.

8 Better results for mine-water treatment

Comply with environmental laws and lower your costs by advancing your mine water treatment processes.

19 endress.com - Made for the Makers

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Index Edition 1/2018

- 10 Namibia Breweries taste excellence at International Food and Beverage seminar Endress+Hauser instrumentation solutions within the food and beverage industry was showcased to customers from around the globe.
- 12 Membrane Filtration
- 14 Save time and effort with streamlined commissioning Automation projects are under stronger cost pressure now more than ever. Time available from the final investment decision until start up is getting shorter because companies need to start generating revenue as early as possible.

- 16 *wazzup* with products
- Contactless Radar Level
 Measurement –
 Time-of-Flight FMR10/20
- Memograph M RSG45 Advanced Data Manager
- 18 Endress+Hauser Pyrotemp –
 Your local center of competence
 in Temperature Measurement
 With unprecedented experience
 and extensive manufacturing
 facilities around the world,
 Endress+Hauser is known as
 one of the leading innovators,
 manufactures and suppliers
 of contact temperature
 measurement technology.
- 21 Marketing Conference 2018
 With the year off to a fresh
 start and suited for success,
 Endress+Hauser South Africa
 held its Annual Marketing
 Conference in February this year.
- 23 Competition time

 Now is your chance to win an

 Endress+Hauser wireless mouse!
- 23 Upcoming events

Information at your finger tips

Dear Customers and Colleagues

This will be my last editorial letter for the *wazzup* magazine. After more than 10 years and 31 editions of the wazzup - yes it has been going since 2006. I will be taking up a new opportunity at the Endress+Hauser head office in Switzerland. I am very excited and looking forward to my new role. My successor will be announced before the end of April, and I know that I am leaving you in excellent hands. Endress+Hauser South Africa has never been this strong, especially with the new, young and diverse management.

Globally, 2017 was a great year for the company, exceeding both order entry and net sales targets. Due to the high demand at the end of last year, we were faced with the challenge of meeting our customers' requested delivery dates. We have therefore started planning how to do this better in the future.

In this magazine we focus on the water industry. Of course, this is a very relevant discussion in South Africa right now, but it is also a challenge for the entire African Continent. We have discussed in previous magazines about access to clean water, wastewater quality control and reduction of harmful effluent. In this edition we focus on desalination – a real alternative in areas where access to water is truly a risk. Also look out for smart commissioning, build your own temperature probe, what is "endress.com", and our newest and smallest magnetic flow meter.

To all Endress+Hauser customers, thank you for your support over the last 10 years. It has been my privilege to know and support you. A key principal of the Endress+Hauser spirit is that "We serve our customers and learn from them". We are learning all the time, improving our products and processes, and we will continue to do so.

To those customers who are joining the Hannover Customer Tour 2018, I will see you in Füssen, Germany.

With best regards.

Rob Mackenzie



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Roh MacKenzie



Solutions for the Cape Town water crisis

South Africa, a water scarce country, should consider its water supply as its most valuable resource. All South Africans with access to piped water should always be responsible water users, and not only when a crisis looms, as is currently the case in the Western and Eastern Cape regions.

Let us focus on Cape Town and the Western Cape to indicate what possible solutions there are for drought stricken areas. The Cape Town region experiences a Mediterranean climate with warm dry summers and winter rainfall. It is dependent on water from mostly six large dams, of which Theewaterskloof is by far the largest. Since 2013 the stored volume of water has slowly decreased but due to three consecutive years of extremely low rainfall, the crisis has

accelerated. The period 2015 – 2017 is regarded as the driest 3-year period in more than 80 years, and 2017 was the driest year since 1933. Modelling by consultants indicate that this is a 1 in 400-year event.

Cape Town has three main options to augment its water supply in times of drought, with the first being the large aquifers in the city and Cape Flats region. They are the Cape Flats aquifer, the Table Mountain aquifer and the Atlantis aquifer.

They can deliver, as per early estimates, respectively 80, 40 and 30 Megalitres per day. This water is mostly treated in conventional water treatment plants.

The second option is desalination of abundant sea water. This process uses membrane technology to remove the salt from the water to deliver potable water. It's seen as a costly method because of the high energy demand.

Basic Desalination Process overview

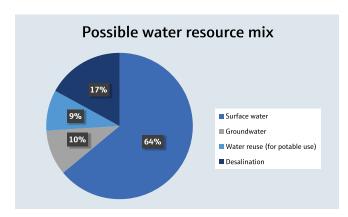
- Sea water is drawn from the sea through pipelines and enters the plant through screens to filter out larger material
- Pre-treatment filters, which may include ultrafiltration, removes smaller particles.
- The filtered sea water is pumped to the Reverse Osmosis (RO) building where it is pushed through RO membranes at pressures of more than 60 bar.
- These membranes remove the salts and only the water molecules are let through.
- The ultra-pure water is then demineralised and disinfected to comply with local drinking water standards
- This potable water is stored in tanks from where it is pumped into the water distribution network.
- The salt concentrate, known as brine, is then returned to the ocean.

Source: Sydneydesal.com.au

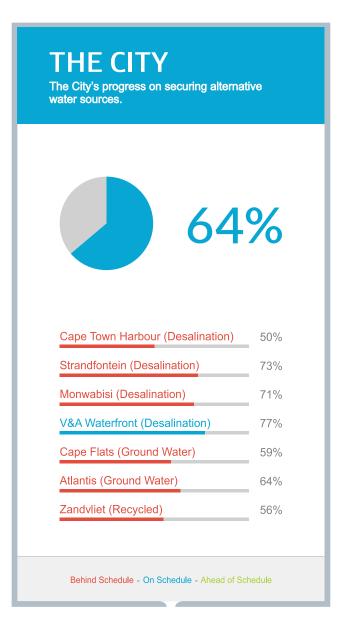
The third option is direct potable reuse. This is defined as the injection of recycled water into the potable water network after the traditional water treatment plant or into the raw water supply before the traditional water treatment plant.

A lot of people would like direct water reuse to be limited to agricultural or industrial use. Unfortunately, with the current and future water emergencies, using it as potable water would be essential. The purified municipal waste water is taken through various membrane filters and finally through RO membranes to get to the required quality. This will be a viable solution, and unavoidable in future, for inland drought stricken areas such as Gauteng. Beaufort West's water supply during the current drought relied on their direct potable reuse plant.

The City of Cape Town will have to get the correct blend of water supply mix that will be cost-effective during times of plenty but can step up to supply more water during times of drought. This diagram indicates a possible water supply scenario from the available sources. (It will change depending on availability of surface water):



Currently the city has four desalination plants in construction phase, two groundwater projects and one water recycle (reuse) plant.



The capacity of the desalination plants ranges from 2 to 7 Megalitres/day and are procured on a 2-year lease contract which includes the decommissioning as well as removal of these plants. These small plants are generally more expensive to operate in this finance option and the best option for Cape Town is to invest in the long term, in a permanent plant with a capacity of 150 to 200 Megalitres/day. The economy of scale ensures more cost effective desalinated water for the city.



Reverse Osmosis

Various companies in the Cape Town area also invested in their own desalination or borehole water treatment plants. These companies are made up of beverage suppliers, a major insurance company as well as a private hospital group.

Desalination experience in South Africa

South Africa is no stranger to desalination technology. Various mines use Reverse Osmosis, as is used in desalination plants, to clean up polluted water from mining activities as well as acid mine drainage water. Various coastal towns also use small or medium scale permanently installed plants for the supply of drinking water during times of drought.

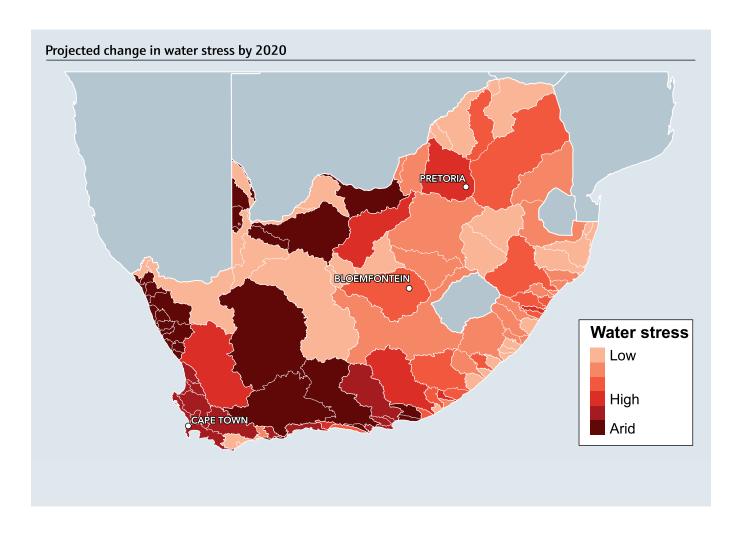
 Mossel Bay has a medium sized desalination plant capable of producing 15 Megalitres/day. It is not being utilised at the

- moment, as the dams in the area are full. This requires continuous maintenance to keep the plant functional and costing the municipality money even though it is not producing water.
- Knysna and Plettenberg Bay in Bitou municipality each has a 2 Megalitre/ day plant. The Knysna plant is currently only used minimally due to high operational cost. In this area there is enough water available in traditional resources.
- Lamberts Bay in Cederberg municipality has a 1,7 Megalitre/ day plant (upgradable to 5

- Megalitres/day) but is not currently operational.
- Richards Bay has a plant with a capacity of 10 Megalitres/day and is currently producing 6 Megalitres/day.

Endress+Hauser has a long and proud history in the desalination industry spanning from the large desalination plant north of Swakopmund in Namibia 9 years ago to current plants under construction. As a result of this experience and the capability to supply a full basket of instruments, Endress+Hauser was the preferred

Endress+Hauser has a long and proud history in the desalination industry spanning from the large desalination plant north of Swakopmund in Namibia 9 years ago to current plants under construction.



instrumentation supplier in nearly all of the above-mentioned plants as well as the majority of mine water reuse plants in South Africa. At two of the current desalination plants being constructed at Cape Town,

Endress+Hauser has the privilege of supplying our full basket of instrumentation. This included items from our flow, level, liquid analyses, pressure and temperature portfolios. All businesses and organisations are

also encouraged to put measures in place to reduce their water consumption and join the city in its efforts to push the Day Zero date further out.

Saving water in your business or organisation

- Make water saving tips visible in the workplace
- Encourage staff to reduce water use at work and at home
- Look for and fix all leaks on the property
- Do regular water audits to see which areas of your business are using the most water and monitor the effect of your water saving efforts
- Start a water saving project it is good visibility for corporate social responsibility projects
- Install water efficient taps or install aerators on existing taps to reduce water flow
- Install water efficient shower heads and encourage 2-minute showers
- Modify toilets to reduce flushing volumes
- Convert to water-wise landscaping
- If your school, organisation or business has a pool, fit a pool cover to reduce evaporation

Source: City of Cape Town



Better results for mine-water treatment

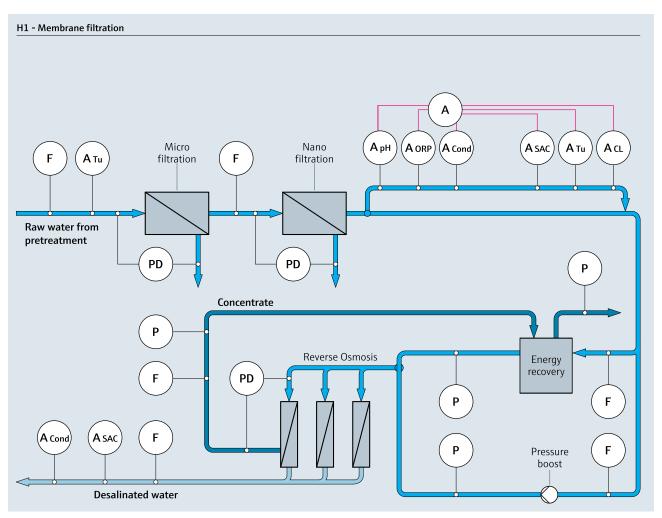
Comply with environmental laws and lower costs by advancing your mine water treatment processes.

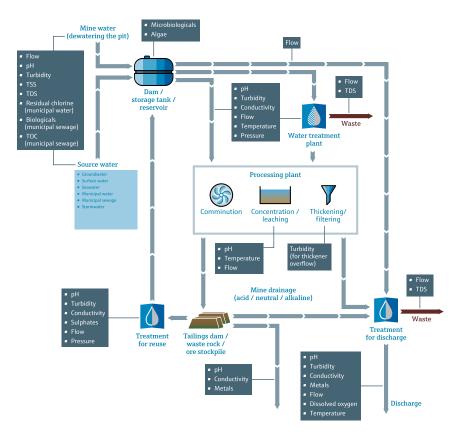
According to the International Council of Mining and Metals, mining companies viewed water like any other production input. But this has changed in recent years. Water scarcity is a growing challenge in the mining environment. Mining requires water at almost every stage of the process and the bulk of the assets of major mining companies are in water-stressed regions mostly in the southern hemisphere. For many mining companies water is being considered as a strategic resource where in the past it was only about rocks.

Water plays a crucial role for mining operations. Not only the people working in mines depend on it but also many of the mining processes consume an average of 10 megalitres of water a day. The preparation of the water used in processes like leaching or flotation consumes energy and chemicals. Finally, mines must discharge the used water back into the environment without harming it in accordance to local standards and in conjunction to the mine's water use license.

As a lot of mines are situated in remote areas without sufficient access to water, this can be a problem. This is why more and more mines rely on water extraction processes like Reverse Osmosis to ensure their water supply, but these processes should be closely monitored to ensure consistent results. Same goes for the preparation of industrial water.







With tight control of parameters like pH and dissolved oxygen, the usage of energy and chemicals can be optimised. The same goes for treatment of water after it's been used to make sure environmental regulations are fulfilled.

Reverse Osmosis is one of the most common raw water preparation techniques. It relies on filtering water through special membranes. The challenge is to have as long as possible filtration cycles without harming the membranes which are prone to blockages and processes like fouling and scaling. Therefore, the most important parameters on the inlet besides flow is the differential pressure measurement over the filter.

Mine water preparation is one of the most important processes for mining water. A neutral pH value will ensure the efficiency of the settling, and turbidity measurements can determine the level of the suspended solids. Digital Memosens sensors are highly accurate and can easily be calibrated without disturbing the processes, thanks to a removable head where data is stored. You can connect up to eight Memosens sensors to a Liquiline transmitter CM44x to make water quality control a breeze as well as reducing the cost per measuring point.

The water balance of the entire mine, several components, or a single entity, may be quantified as part of the water quality and/or quantity management

activities at a mining site. Reasons for undertaking a facility or site water balance study may include:

- a. evaluate strategies for optimum use of limited water supplies;
- establish procedures for limiting site discharge and complying with discharge requirements, particularly control of the quality of the water and/or the quantity of contaminants discharged from the site;
- c. limiting or controlling erosion due to flow over exposed surfaces or in channels, swales, and creeks; and
- d. estimating the demands on water treatment plants, holding ponds, evaporation ponds, or wetlands.

Monitoring and controlling of water quality used on mines forms part of KPAs which needs to be managed to comply with local legislations. Endress+Hauser can support mines by reducing these targets and assist them by reporting on the required KPAs and milestones even more efficiently.



CM44x: Transmitter liquid analysis Multiparameter + Multichannel applicable for process control of, pH/ORP, conductivity, turbidity and oxygen(DO), with PID control.





eh.digital/2H4px51

60+

years of experience in the water & wastewater industry

30%

of the energy costs at most can be saved using our solution for aeration control

10%

of the mining industry's CAPEX

is spent on water-related infrastructure according to the International Council on Mining & Metals (ICMM) and the International Finance Corporation (IFC)

20%

cost savings due to lower consumption of conditioner chemicals for sludge treatment



Namibia Breweries taste Endress+Hauser's excellence at International Food and Beverage seminar

The technological advantages of Endress+Hauser instrumentation solutions within the Food and Beverage industry was showcased to customers from around the globe at the Food and Beverage Forum, hosted in Switzerland.

Fransoa Fourie, the Team Leader for Brewing Maintenance at Namibia Breweries Ltd (NBL) joined 30 senior executives from eight other countries for the four day forum in November 2017. Presentations by Endress+Hauser industry experts and factory visits brought delegates up to date with the latest offerings from Endress+Hauser, whilst providing valuable customer networking opportunities to discuss operational challenges.

"The wide range of topics covered by speakers at this forum certainly gave me insight into new and advanced technical offerings that can assist in the resolution of manufacturing and production issues we face in the brewing industry. Of particular interest was the new 80GHz free space radar level measurement technology and the TrustSens technology in the self-calibrating

temperature sensors. As a result, NBL is currently interested in the 80GHz technology on the FMR67 free space radar level sensor for their spent grain silos, a process environment that is warm, highly humid and where moist spent grain sticks to level sensors which leads to unreliable measurement readings. We are optimistic that this technology of the FMR67 will end our problems in this regard" said Fourie.

Holger Barth, Team Leader for Ecotech echoed Fransoa saying "We do believe the FMR67 with its drop off antenna, currently under test at NBL, will resolve the problems experienced by NBL. We anticipate positive results from this test unit shortly. Installing these level sensors on the remaining tanks and silos would be of immense benefit to NBL going forward".

"The presentation on wastewater was also of interest to us as the brewery sector is one of the largest users of water" commented Fourie, adding "Despite advancements in technology over the last 20 years or so wastewater and water consumption levels are still high; wastewater has an environmental impact and the high consumption levels is of importance to Namibia and Southern Africa".

"The Namibian food and beverage industry is a steadily growing market for us. We believed exposure to the Forum for the Food and Beverage Industry that Endress+Hauser annually hosts, would provide a great opportunity to network with industry specialists and gather information about newest measurement technologies and advancements in the food and beverage industry. The forum offers much industry

debate and insight into evolving process solutions and how they can be successfully applied" said Barth.

Hygienic Design is Crucial

"Dr Hofmann from the European Hygienic Engineering and Design Group (EHEDG) highlighted the latest developments in hygienic design and ideal process connections for the food and beverage industries in order to comply with Cleaning in Place (CIP) standards. This was an exceptionally interesting presentation for us at NBL, and as a result we are considering options of standardising on the newest hygienic process connections in the market" commented Fourie.

New Innovative Instrumentation

Two new ranges of advanced instrumentation from Endress+Hauser were showcased at the forum: the world's first self-calibrating thermometer, the iTHERM TrustSens TM371, and the Proline Promass Q300/500 flowmeter.

"The TrustSens TM371 offers the beverage industry continuous traceable monitoring without process interruption due to its fully inline self-calibration function. The advanced and integrated smart electronic features of TrustSens guarantees continuous and autonomous device self-diagnostics making it ready for Industry 4.0 applications. This offers the food and beverage industry higher product safety, reductions in re-calibration



and downtime costs, while increasing plant availability. These are all elements that enhance brewery operations" said Barth.

Promass Q provides unmatched measurement accuracy for mass flow, volume flow and density. Using the new innovative multi-frequency technology, the Promass Q has been optimised for liquid applications where entrained gas is known to be present. The Promass Q provides superior immunity to fluctuating process pressures and temperatures. With the Promass Q Endress+Hauser was awarded as an Innovation

Leader with the Swiss Technology Award 2017. Additionally, Heartbeat Technology ensures compliance and process safety at all times.

Fourie concluded "In today's manufacturing climate, the brewery industry, like many others, endeavours to streamline production processes through the utilisation of advanced instrumentation and associated technologies. Advanced specialist instrumentation is a critical element in the monitoring and measuring of all the various systems involved in a brewery plant. That is why it is so important that we engage regularly with our suppliers and service providers so that we are kept informed and abreast of how we can enhance production methods and remain cost efficient".

NBL is a long-standing customer of Ecotech, based in Namibia, and was established in 1920. NBL is part of the Ohlthaver & List Group and is one of the largest breweries in Southern Africa.



Fransoa Fourie, Namibia Breweries





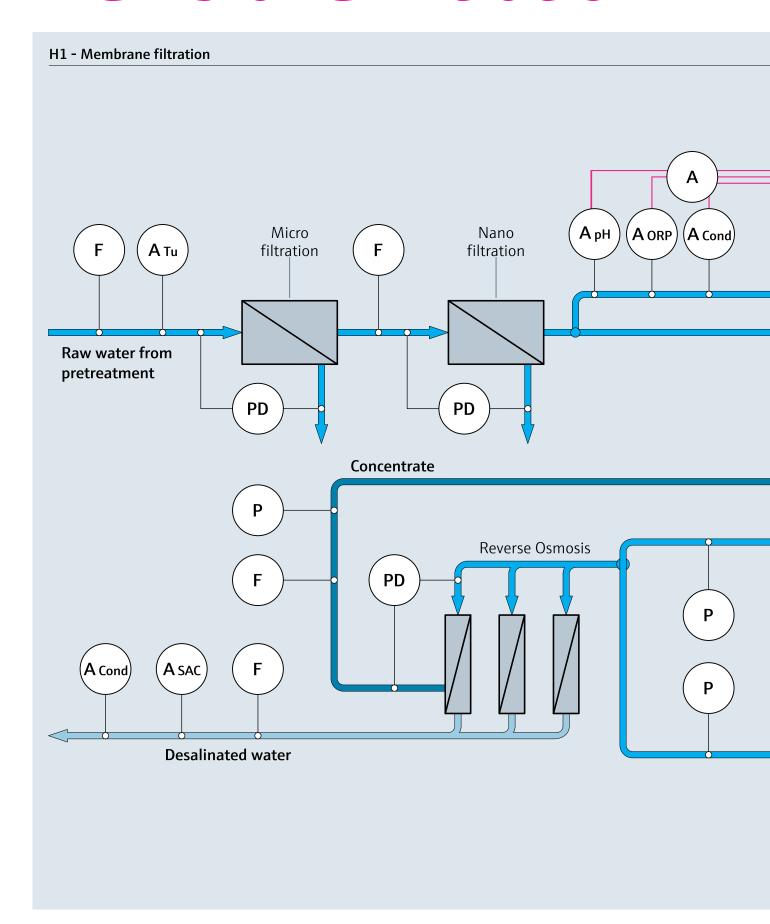
For more information on TrustSens:

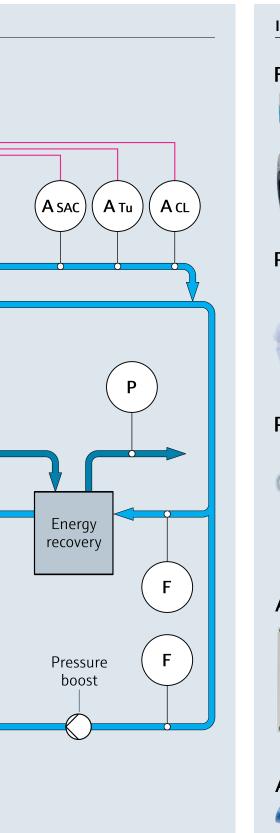
https://
eh.digital/2rRQUwm
or watch the TrustSens video
http://bit.ly/trustsens

For more information on the Promass Q:

http://bit.ly/2wAmA8v or watch the video http://bit.ly/promassQ

Membrane Filtration







Save time and effort with streamlined commissioning

Project challenges are mainly related to time and budget

Automation projects are under stronger pressure, now more than ever, the time to reduce costs available from the final investment decision until start up is getting shorter because companies need to start generating revenue as early as possible. Contractors and project leads typically follow KPIs based on time savings and cost reduction within a project, while comparing them to previous similar project experiences. Last minute changes in projects are common, e.g. adding new devices or changing configurations after the final order is placed, so it is important to be flexible and take an agile approach to managing these situations wherever possible.

Integration, configuration and commissioning of intelligent devices does not have to be laboriously slow

Smart Commissioning is the most efficient approach to commissioning intelligent devices (PROFIBUS, FOUNDATION fieldbus, HART, WirelessHART, EtherNet/ IP and PROFINET protocols). By using a technologyenabled process and smart DCS/PLC functions such as Device Templates, Pre-Configuration and Remote and Bulk configuration we can commission faster and safer in comparison to conventional on-site processes. The result is drastically reduced commissioning time, risk and effort.

Expertise is the key to fast, smooth and solid plant start-up

Commissioning is on the critical path for startup and delays sometimes cost millions of Rands per day, customers are constantly searching for new ways to be more efficient during commissioning.

Assuming an average time of 1.5 hours per device with conventional (device display, handheld or a service tool) commissioning at a price of R1000/h, in a medium size project with 2000 devices, this task will take 3000 hours and cost R3million. If we take the same project, but use Device Templates combined with a streamlined commissioning processe, this task can be done in less than 500 hours and costs only R500K.

Typically, time savings result in 50-80% cost savings, mainly related to labour costs in projects with more than 200 devices and a good portion of intelligent devices. In addition, most work can be completed more efficiently due to careful early planning, reducing the likelihood of any impact on the project's critical path. Moreover, this approach also avoids the risk of working on construction sites, as most of the work is done offline in safe office and workshop environments.



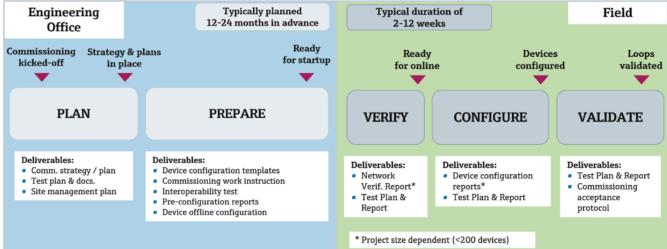
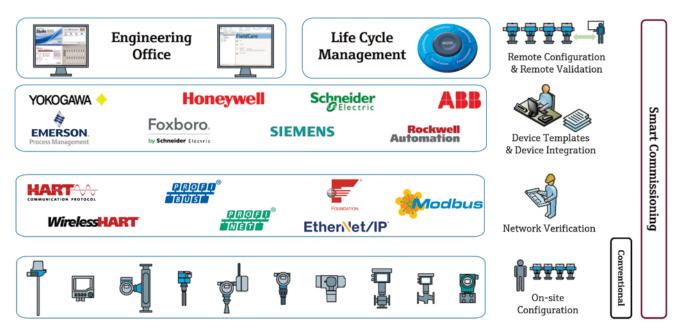


Figure 1 – Smart Commissioning is planned and executed in two major stages

Figure 2 - Endress+Hauser's broad Smart Commissioning scope



All configuration and integration tasks are discussed and tested before the final commissioning of the devices, hence concerns of compatibility with control systems are eliminated.

With conventional commissioning, device diagnostics like NAMUR NE107 and Heartbeat Technology are sometimes not considered and therefore not configured which often leads to false alarms in the Decentralised Control System (DCS) or Asset Management System (AMS). This often forces the customer to "switch off" this functionality in the host system. This makes it impossible to utilise Heartbeat Technology and to adopt a preventive maintenance concept using sensor data as a source of information.

If we want to enable best practices, the optimum configuration of each device is mandatory. Another advantage of Smart Commissioning is that the process is clear, proven and well-defined. Consistent and optimum device configuration, including alarming and advanced diagnostics, is comprehensively applied to the instrumentation installed base across

the entire plant. As a result, there will be no unpleasant surprises due to DCS device integration issues or alarm flooding during the critical startup phase. In addition, with this proven approach, the quality of work is independent of a subcontractor's (e.g. a field technician's) qualifications.

The "smart" factor is in the commissioning process
The essence of Smart Commissioning is to get involved as early as possible in the project discussions and make the best decisions at an early stage related to:

- planning and preparing commissioning tasks in the engineering office
- efficiently performing commissioning in the field

Conclusion

Smart Commissioning addresses the key customer concerns of meeting strict and shifting deadlines as well as keeping tight control on budget. Smart Commissioning is the right approach for commissioning intelligent devices. It enables a faster and safer commissioning process in comparison to conventional on-site

methods and drastically reduces commissioning time, risk and effort. This value-added service is an integral part of Endress+Hauser's extended service offering as Endress+Hauser South Africa provides project consulting and project execution services.



wazzup with products

Contactless Radar Level Measurement – Time-of-Flight FMR10/20

Level measurement in liquids for water and wastewater and utilities







The Micropilot FMR10 offers continuous non-contact level measurement and is a perfect application fit for the Water and Wastewater industry and utilities across all industries. FMR10 belongs to the first radars with Bluetooth® commissioning, operation and maintenance app. Signal curves can be shown via app on every Bluetooth®-enabled smartphone or tablet (iOS, Android). Thanks to a unique chip this compact designed device is ideal for limited space applications.

Field of Application:

Radar for continuous level measurement in liquids. For use in storage tanks, open basins, pump/lift stations or sewer management.

- Ingress protection: IP66/68 / NEMA 4X/6P
- Measuring range: up to 20 m
- Process temperature: -40 to 80 °C
- Process pressure: -1 to 3 bar (-14 to 43 psi)
- Accuracy: up to ± 2 mm
- International explosion protection certificates

Benefits:

- Level measurement for liquids in storage tanks, open basins, pump shafts and canal systems
- Radar measuring device with Bluetooth® wireless technology and HART communication
- Simple, safe and secure wireless remote access ideal for installation in hazardous areas or places difficult to reach
- Commissioning, operation and maintenance via free iOS/ Android app SmartBlue – saves time and reduces costs
- Full PVDF body for a long sensor lifetime

- Hermetically sealed wiring and fully potted electronics
 eliminates water ingress and allows operation under harsh environmental conditions
- Most compact radar due to unique radar chip design fits in limited space installations
- Best price-performance-ratio radar; 4-20mA output for simple plant integration





Memograph M RSG45 Advanced Data Manager

Saves, visualises, analyses and communicates



The Advanced Data Manager Memograph M is a flexible and powerful system for organising process values. Thanks to its intuitive operation, the Memograph M adapts quickly and easily to the respective application. The measured process values are clearly presented on the display and logged safely, monitored against limit values, and analysed. By means of common communication protocols, the measured and calculated values can easily be communicated to higher-level systems and individual plant modules can be interconnected.

Application packages/software options:

In the standard version, the Advanced Data Manager has a variety of functions, including an end-to-end safety concept to meet the requirements of FDA 21 CFR Part 11. The water and wastewater software application packages are available to help users meet the requirements of their applications and save time.

Wastewater + RSB (rain spillway basin):

The water and wastewater software supports operations monitoring of the water and wastewater sewage network to obtain information about the quality and efficiency of the plant. The daily, weekly, monthly and yearly maximum and minimum value is determined per quantity channel. Infiltration water recording and the monitoring of rain spillway basins for reservoir and overflow events are also functions of this software option.

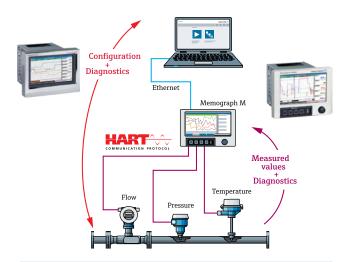
The water and wastewater software contains the mathematics package and the telealarm software:

- Rain spillway basin (reservoir/overflow)
- Highest and lowest values for quantities
- Highest and lowest values from ¼-hourly averages
- Determination of infiltration water

Benefits:

- High data security: tamper-proof data storage and personalised access authorisation with electronic signature (FDA 21 CFR 11)
- 7" TFT display for the clear presentation of measured values

- Stainless steel front with touch operation: trouble-free operation in demanding environments such as hygienic or hazardous areas
- HART® input card: HART® sensors directly connected provide accurate process values for calculation and logging
- HART® gateway: time-saving direct access to HART® sensors in the field with FieldCare using Memograph M without interrupting the measuring loop
- Integrated Web server: remote access to device operation and visualisation for lower maintenance costs
- WebDAV: data saved on SD card transmitted directly to a PC via HTTP without any additional software
- Future-oriented: simple device upgrade to up to 20 universal/HART® and 14 digital inputs or 12 relay outputs
- System capability: supports common fieldbuses (Modbus, PROFIBUS DP, PROFINET, EtherNet/IP) for fast integration into different systems
- Standard interfaces: can connect a USB keyboard or mouse for faster data entry
- Integrated verification Heartbeat Technology™





Endress+Hauser Pyrotemp – Your local center of competence in Temperature Measurement

With unprecedented experience and extensive manufacturing facilities around the world, Endress+Hauser is known as one of the leading innovators, manufactures and suppliers of contact temperature measurement technology.

Efficient tooling "Production enhancement"

Endress+Hauser Pyrotemp is equipped with the latest technology equipment in manufacturing, which is mirrored from our global network of producing companies, mainly in Europe. From goods receiving to finished products we have specialised equipment, such as the Positive Material Identification X-Ray machine, which ensures that the quality of our products is not compromised by positively identifying the incoming material from suppliers to ensure that it is according to the material ordered. Our quality management systems (ISO 9001:2008) ensures that the product goes through each step of quality checking right to the final testing and inspection stage before dispatch. The Laser Marking machine "Trumph 5000" has the latest technology in the laser marking industry which ensures that our instruments are properly marked before dispatch. This helps the customer in future when there's an enquiry with the instrument. The customer can provide us with the serial number of the instrument and that then enables us to trace the instrument back to every component that was used to manufacture that instrument and thus providing well-informed feedback to the customer about their product. Realising our customers' requirements for quality, we provide temperature measurement points with each individual component subject to careful examination in our own test facilities. The quality of materials, processes and instruments is fully certified and specific details can be traced back for years!

Traceable calibration "Knowing is peace of mind"

Our in-house calibration laboratory is among the best performing temperature calibration laboratories in the country with SANAS accreditation #367. The facility has the lowest measurement uncertainty values when compared to other laboratories (at $0^{\circ}C \pm 0,008$ K/°C). This is achieved by using traceable calibrating equipment of the highest-precision and our calibration standards are according to international standards ITS90. We calibrate thermocouples, RTD's and temperature transmitters which we manufacture, as well as third party instruments. Our inter-laboratory comparisons (ILC) are not only done with South African laboratories but annually we perform an ILC with two European laboratories (Germany and Italy) to yet again prove our traceability at international level. Currently our accredited calibration range is -20...+1550°C which is the highest temperature calibration span in the country.

Local Centre of Competence – "Your partner in temperature"

Endress+Hauser Pyrotemp houses our local Centre of Competence for a wide range of standard products and Engineered Temperature Solutions to assist in all processes. With extensive temperature manufacturing and testing facilities, we handle single piece work through to large volume projects, offering expertise in the manufacture of tailor-made solutions for our customers. Key production and technical personnel with over 40 years' experience are familiar with all aspects of temperature sensor design

and manufacturing techniques, to provide an accredited quality service across sub-equatorial Africa. We also offer basic temperature training for newly graduated technicians, as well as experienced engineers who would like to refresh their temperature knowledge. The training takes place at our manufacturing facility in Benoni and it is a three day course. Within the three days of training you also get the opportunity to build your own temperature probe which you take home as a souvenir.





Benjamin Mlangeni Product Manager: Temperature System Components & Registration Benjamin.mlangeni@ za.endress.com



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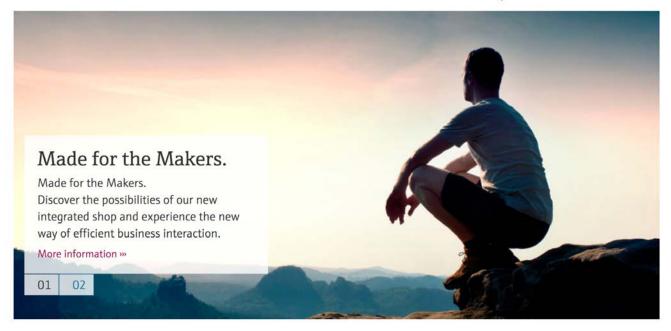




South Africa Y

Industries Products Solutions Services





endress.com - Made for the Makers

Experience the new way of efficient business interaction

The integration of the online shop into our company website underlines Endress+Hauser's goal of providing support to our customers to streamline their procurement processes and to improve their buying experience. Our online presence has undergone extensive revision. More than just a redesign, a great deal of focus was placed on maximising functionality and usability to create a comprehensive information and procurement platform.

A comprehensive purchasing tool

Integration of the online shop into the website has made it easier for planners, purchasers, engineers and maintenance personnel – in short, everyone - to discover and easily purchase from our complete product portfolio. With the combination

of product information and direct purchasing options, the procurement process is easier than ever.

Personalised information

Once logged in, a wide range of individual and detailed information is available including personalised pricing and order history. All transactions of a company or a company branch can be viewed in one summary, irrespective of whether these were completed online or offline. The range of services includes integrated document management. Users can access all documents such as quotes, invoices and delivery information to obtain a comprehensive overview of their transactions. Customers are able to assign role-based access rights and strategic purchasers have a multiple log-in option at their disposal.

Sounds good? Log in and try it for yourself at www.za.endress.com

With the new functionalities you are now able to buy products directly right where you learn about them, view all your business transactions and access your personalised environment (agreed prices, standard products, contacts etc.)







Food and Beverage industry

Arrival 3 June 2018 (flying out 2 June)
Departure 9 June 2018

The total cost of the seminar is R26 000

(includes the event, accommodation, food & drinks, organised evening activities and all transfers related to the seminar) Excludes flights (\pm R10 000 - R15 000), VISA application, train tickets, and all expenses outside of the group event.

For more information please contact Natlee Chetty: natlee.chetty@za.endress.com 011 262 8007

http://bit.ly/2F8fXxr

Natlee Chetty Head of Department: Marketing natlee.chetty@za.endress.com



Water and Wastewater industry

Arrival 4 November 2018 (flying out 3 November)

Departure 9 November 2018

The total cost of the seminar is R26 000

(includes the event, accommodation, food & drinks, organised evening activities and all transfers related to the seminar) Excludes flights (\pm R10 000 - R15 000), VISA application, train tickets, and all expenses outside of the group event.

For more information please contact Hennie Pretorius: hennie.pretorius@za.endress.com 011 262 8068

http://bit.ly/2FKneEF



Marketing Conference 2018

With the year off to a fresh start and suited for success, Endress+Hauser South Africa held its Annual Marketing Conference in February this year.

We all love an Endress+Hauser event, like the Pyrotemp Oktobestfest, so we know what can be expected when over a hundred attendees from all over Sub-Equatorial Africa and many international guest speakers come together. The Annual Marketing Conference is the biggest internal event for the year. It offers a unique opportunity for the Endress+Hauser team members, Africa representatives and international colleagues to come together and get a firsthand sense of the company's focus, perspective, and strategies for the year.

Endress+Hauser International guest speakers

The Marketing Conference served as an amazing platform to bring together topics related to megatrends such as digitalisation and technology innovation. New technology and innovation are amongst some of the enablers that allow Endress+Hauser to fulfil its brand promise; "We help our customers to improve their processes by generating valuable process knowledge".



Kennett Lubbe - Sales Person of the year award 2017

Further topics related to application and industry expertise, added value and partnership, which also forms part of the brand promise, was an integral part of the week together. The coming together of so many smart minds in the industry also created the opportunity for the



Mpumalanga - Branch of the year award 2017

exchange of knowledge, and to connect and interact with representatives, fellow colleagues and some of the global directors of Endress+Hauser.

The Awards dinner was held at the Radisson Blu in Sandton and was a great evening where many of the top achievers were recognised and rewarded for their dedication and hard work. The Sales Person of the year was Kennett Lubbe, from the Cape Town Branch Office. Hennie Pretorius, Industry Manager of the year was also



Jan Swart - Product Manager of the year award 2017

rewarded for the strong growth in the water and waste water industry. Jan Swart received the Product Manager of the year award for his role in actively growing the Analytic product portfolio. The branch of the year award was awarded to the Mpumalanga Office, and Ecotech, an Endress+Hauser Representative based in Namibia won the Representative of the year award.



Ecotech - Representative of the year award 2017

It was a very informative, interactive but also fun filled week. Endress+Hauser's Corporate Marketing Director, Paul Borggreve commented: "An Excellent Marketing Conference. It feels great to be a part of such an excellent team operating in the challenging market of South Africa."



Hennie Pretorius - Industry Manager award 2017



Date Registration and welcome:

24 June 2018

Event:

25 - 27 June 2018

Time 08h30 - 17h15 (25th, 26th)

08h30 - 16h30 (27th)

Location Cape Town International

Convention Centre (CTICC),

Cape Town, South Africa

RSVP Cezanne Gonsior

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Invitation – WISA 2018

Breaking barriers, Connecting ideas

Please join Endress+Hauser at the Water Institute of Souther Africa's (WISA) biennial conference and exhibition for 2018.

The central theme of "Breaking barriers, Connecting ideas" seeks to address past, existing and future water resource challenges by promoting collaboration, cooperation and integration within the water sector. The Southern African region faces increased uncertainty and vulnerability regarding water supply.



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Competition Time

Now is your chance to win a Endress+Hauser wireless mouse! Answer the following 3 questions correctly and stand a chance of winning this fabulous prize.

- 1. How many litres of water does the average mining process consume in a day?
 - a. 50 Megalitres
 - b. 100 Megalitres
 - c. 10 Megalitres
 - d. 5 Megalitres
- 2. To what protocols can the Smart Commissioning approach be applied to?
- 3. Where is South Africa's biggest sea water desalination plant situated?



The winner will be announced on the Endress+Hauser Group Facebook page on 23 June 2018.

The following competition terms and conditions apply:

- 1. Use the following subject line: wazzup Competition 1/2018
- 2. Answer all 3 questions correctly
- 3. Supply us with your complete contact details

Please send your answer to events@za.endress.com before 23 June 2018.

Upcoming events

Date	Event	Venue/Region
April		
14 - 25 April	Hannover Training Tour	Germany, France and Switzerland
May		
2 May	SAIMC Technology Evening	Durban
8 May	wazzup Seminar Water & Wastewater	Endress+Hauser Sandton
June		
5 Jun	wazzup Seminar: Oil & Gas	Sasolburg
7 Jun	wazzup Seminar: Oil & Gas	Secunda
12 Jun	wazzup Seminar: Oil & Gas	Durban
24 - 27 June	WISA Conference & Exhibition	CTICC Cape Town
July		
19 Jul	wazzup Seminar General	Emalahleni
26 Jul	wazzup Seminar General	Phalaborwa



Events and Website Co-ordinator 011 262 8004 events@za.endress.com

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