# **Endress+Hauser Australia**

Product, Service, Solution and Project capabilities





Endress+Hauser Australia - People for Process Automation

# Endress+Hauser Australia – the People for Process Automation

Endress+Hauser instruments reliably gather all information from the industrial processes that enable you to operate your plants economically with optimum product quality and safety for employees and the environment. Our competence goes well beyond field instrumentation with capabilities in engineering, software/services, customised solutions and field tools for verification and commissioning of systems and transmitters.

Since 2001, Endress+Hauser Australia has been directly supporting Australian customers through our extensive offering in a range of services from full technical sales support through to service technicians for field assistance and commissioning. With our head office in Sydney and branch offices located in Brisbane, Melbourne, Adelaide, North Queensland and Perth, as well as a network of representatives across the country, our team are able to provide local and reliable support where you need it.

Endress+Hauser is a world leader in the field of process measurement with complete technologies for flow, level, pressure, liquid analysis, gas analysis, temperature and systems for data acquisition. Our field instruments use different measuring principles to operate reliably and accurately in any situation. Ongoing compatibility into a variety of process control platforms utilising a range of communication solutions including Ethernet/IP, IO-Link, Foundation Fieldbus, Profibus and HART, is ensured with our dedicated test laboratories.

In addition to our instrumentation we can support you to ensure that your process is optimised and safe. Whatever your location or your industry, our service team is there to help you reach your goals. Based on our process knowledge and technical expertise, a uniform approach through clear procedures ensures that the work we conduct for you is done properly. Customised services and training can also be adapted to your needs, contact us today.

If you need help implementing a instrumentation project we have a team in Australia that can help make this happen. Our project management capabilities are based on worldwide harmonised and standardised processes. Professional communication and collaboration leads to trust which is key to successful process automation projects particularly when it comes to large-scale projects or when outsourcing non-core functions is required.

Our extensive product, service, solution and project offerings in process measurement has led us to become a major supplier to industries including:

- Mining and Minerals Processing
- Water and Wastewater
- Ga
- Food and Beverage
- Life Sciences



Endress+Hauser Australia - People for Process Automation
Our Instrumentation Portfolio

## **Our Instrumentation Portfolio**



#### Flow measurement for liquids, gases and steam

Consistent product quality, safety, process optimisation and environmental protection – these are only a few reasons why industrial flow measurement is becoming more important all the time. Water, natural gas, steam, mineral oil, chemicals are some of the fluids that have to be measured day in, day out. There is no single, across-the-board technology suitable for all these applications, so you can choose the flowmeter best suited to your process needs from our comprehensive product basket.

More information >>>



#### Level measurement

Constant product quality, plant safety and economic efficiency - these are important aspects for any level measuring point. Levels in liquids, pastes, bulk solids or liquefied gases are often measured in tanks, silos or movable containers. For continuous interface and density measurement as well as for point level detection, a broad range of measuring principles is available. Endress+Hauser supports you from planning through commissioning and also maintenance of your measuring point.

More information >>>



#### Pressure measurement

Whether pressure, level or flow, todays pressure measurement technology is often used for measuring liquids, pastes and gases. With a wide range of sensor technology Endress+Hauser offer instruments that perform well in any application.

More information >>>



#### Liquid analysis in all applications

Environmental protection, consistent product quality, process optimisation and environmental safety – just a few reasons why liquid analysis is becoming increasingly essential. Liquids such as water, beverages, dairy products, chemicals and pharmaceuticals have to be analysed day in and day out. We support you in fulfilling all these measuring tasks with application know-how and cutting-edge technologies. Discover our comprehensive portfolio and choose the product best suited to your process needs.

More information >>>



#### Temperature measurement

Endress+Hauser offers a complete assortment of compact, modular and multipoint temperature sensors, thermowells, measurement inserts, transmitters and accessories for all types of process industries such as Oil & Gas, Chemicals, Food & Beverage, Life Sciences, Mining and Minerals Processing, Power & Energy.

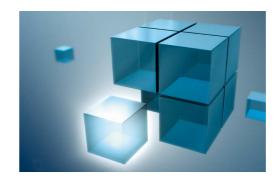
More information >>>



#### Software solutions

Apart from all relevant measuring and system technologies, we also offer appropriate software tools for all branches of industry. Our comprehensive portfolio spans a range of software solutions optimising your inventories and supply chain, for device calibration and configuration through to condition monitoring by providing valuable asset information over the entire life cycle. Our energy managements solutions allow you to monitor your energy use in order to be more efficient and reduce costs.

More information >>>



#### System components and data managers

Today the requirements on measurement technology go far beyond the mere recording of measurement values. Measuring devices need to be supplied with power and to be protected against overvoltage, the measurement value is to be visualised or processed, limit values have to be monitored as well as the data has to be archived in a secure way. These tasks are covered by the system products and data managers from Endress+Hauser.

More information >>>

## **Our Service Portfolio**

## Services by your side - Committed to your business, for improved plant performance

#### **Calibration Services**

Regular calibration is essential to keep the instrumentation measuring your critical processes in spec. Endress+Hauser provides timely, traceable, and cost-effective services that are accompanied by clear and concise calibration certificates. From accurate on-site testing to fully accredited laboratory calibration, we carry out and advise on every aspect of instrument calibration to meet all your business requirements.

More information >>>

#### **Diagnostic and Repair Services**

Because measurement instrumentation is essential for your processes, we utilise decades of service expertise for various applications. Our team of dedicated service engineers across every state in Australia offer comprehensive diagnostics and repair services for your industrial measuring instruments. Save costs and resources and minimise possible downtimes of your Endress+Hauser products. By combining extensive application know-how with specialised tools, we are able to deliver quality, quick and precise service.

More information >>>



#### **Commissioning Services**

Proper commissioning of your process instrumentation is essential to handle critical factors such as time, resource availability and access to specific skills during the start-up phase. Utilising Endress+Hauser's commissioning services allows you to achieve long-term operational benefits. Our Australia wide team of experienced technical experts ensure a sustainable beginning-to-end solution for your commissioning projects, regardless of the scale and location of your facility.

More information >>>

#### **Industrial Support Services**

Our technical support experts ensure your installed base of instruments, software, and/or automated solutions keep running smoothly over time. With extensive service expertise and knowledge about instrumentation and application, our technicians can help you in critical situations quickly and sustainably to ensure continuous performance. Our service experts will execute and restore your device remotely or quide you through custom processes by direct access with a quaranteed prompt response.

More information >>>



#### **Installed Base Audit**

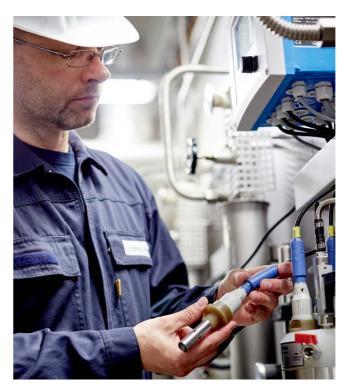
Installed Base Audit is a service for auditing and analysing the instrument base installed in processes. The main aim is to develop fact-based recommendations to create a maintenance schedule that increases plant availability and cuts cost. The service defines maintenance priorities according to available resources and production requirements, identifies out-of-date documentation, reduces complexity of older systems and identifies necessary measures to increase production.

More information >>>

#### **Industrial Training**

Your employees play an important role in your company's overall performance and manufacturing process. Endress+Hauser supports you to enhance and refine their production and maintenance knowledge - no matter if they are experienced engineers, practicing technicians or industry newcomers. Our experienced Australian based instructors apply years of service expertise to help your staff learn how to operate instruments properly and apply corrective and preventive maintenance of your measurement devices.

#### More information >>>





#### **INPEX, Northern Territory**

INPEX owns and operate one of Australia's largest resources project which includes an onshore processing plant, an offshore processing facility and an FPSO (floating production storage and offloading facility).

Endress+Hauser Australia worked with the EPCs from Korea and Japan that designed the system and has commissioned approximately 1000 devices including flow, level and tank gauging. We have also been consulting with the plant owner in optimising the install base.

Endress+Hauser Australia - People for Process Automation
Our Solutions Portfolio



## **Our Solutions Portfolio**

The combination of reliable products and expertise in customised solutions

# Truck-based Inventory Management and Flow Metering Project, Victoria

This project was for the distribution of liquid fertisiser to farming communities, where the liquid is utilised as an aid for higher retention of nitrogen in the soil, which reduces nitrate leaching and improved crop yields.

Endress+Hauser Australia initially provided the Flow metering skid and the Inventory monitoring system. In designing the solution, however, the scope increased to include the network architecture, turnkey skid manufacture, design and manufacture of a mobile master rig for verification, on-going calibrations and support contract.

#### Flow Metering Solutions

If your particular operation involves a custody transfer measuring system in the oil & gas, chemicals or food sector, we guarantee maximum accuracy in all your loading processes. Our certified solutions ensure transparency for peace of mind in your daily business whilst reducing your costs

#### More information >>>

#### **Analytical Solutions**

Depending on your measuring task, we develop customised analytical solutions such as monitoring panels in Australia, monitoring cabinets, monitoring stations and aeration control systems for wastewater treatment plants. We support you from conceptual design to realisation and commissioning. Endress+Hauser is your reliable partner during the entire life cycle of your solution.

More information >>>

#### **Inventory Management Solutions**

The business world is approaching the fourth industrial revolution. Linking the real and virtual world facilitates better monitoring and faster decision-making processes. This makes it possible to control and optimise companies and entire value added networks almost in real time. We can support you integrating your supply chain. Apart from all relevant measuring and system technologies, we also offer appropriate software to monitor and optimise your inventories and supply chain.

#### More information >>>

#### **Plant Asset Management**

Do you have all relevant information at your fingertips, to optimise your maintenance? Can you react quickly to device malfunctions and failures? These are just two questions related to plant operation where the Endress+Hauser Plant Asset Management Solution and our Australian based Services bring you significant improvements. Every field device has to be configured, calibrated, maintained and its information managed over its entire life cycle.

#### More information >>>

#### Field Network Engineering

Today, intelligent devices provide valuable information that helps to improve both the operation and maintenance of a plant. The main challenge to their use, both in new or existing plant, is finding the expertise to ensure trouble-free implementation. Only by involving a competent partner right from the start, can you be sure of smooth project handling and the seamless hand-over of a fully operational plant. Increased safety, reliability and availability then follow by design.

#### More information >>>

#### **Overfill Prevention**

For plant operators dealing with toxic or dangerous media, avoiding and controlling risks is crucial. One of the most significant risks at facilities that store hazardous liquids is an overfill event. The severity of an overfill event may be high due to health and safety issues or environmental damages – followed by fines and lawsuits. We understand the needs and struggles of our customers. Our independent and diverse overfill prevention systems meet the highest safety standards to ensure safe functionality.

#### More information >>>

#### **Energy Solutions**

With constant system monitoring using meaningful KPIs, operators, supervisors and management are kept informed and constructive energy management is possible. The right measurement solution, combined with our consulting and service capabilities, is the key to your success. We offer not only single measuring devices but complete, tailor-made energy solutions covering the complete utility range of cold and hot water, compressed air, natural gas, electricity and steam.

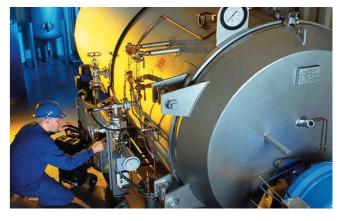
#### More information >>>

#### **CSL Limited, Melbourne**

More than a century ago CSL made a promise to save lives and protect the health of people with a range of serious and life-threatening medical conditions. Their broad range of medicines include those that treat disorders of the immune system, bleeding disorders, shock and burns, and vaccines to decrease risk of influenza.

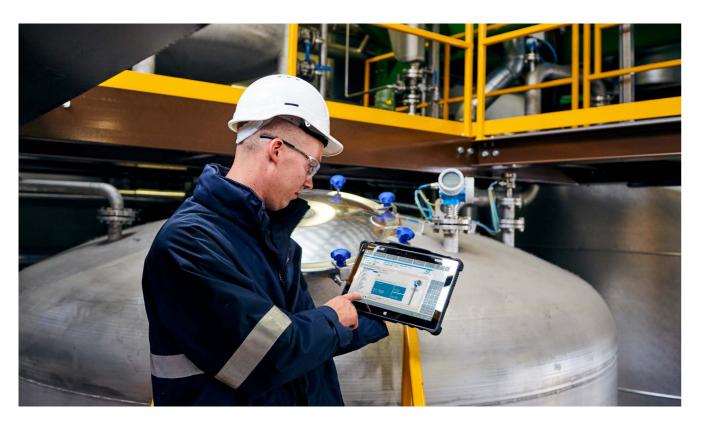
Endress+Hauser are CSL's instrument vendor globally for instrumentation ranges including flow, level, pressure, temperature, pH and conductivity. E+H have provided additional support through automated calibration systems, documentation and engineering services.







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### Netilion - Industrial Internet of Things (IIoT)

The Endress+Hauser IIoT monitoring solution unleashes the power of your field instruments by providing you with insights that allow you to improve your operations. This is achieved by providing access to important instrument data on any device, anywhere, anytime.

Our IIoT solutions consist of a suite of easy-to-use packages consisting of measurement technology, communication solutions and mobile apps. With these packages, you can

access your important measurement data immediately, at any time and from anywhere. You can thus ensure ideal production conditions and good perspectives for success.

More information >>>

#### Benefits of an Endress+Hauser IIoT Solution

Easy to integrate into existing process control architecture

- Can sit alongside existing HMI/SCADA/DCS
- Access by Business Users, not operators
- Little or no impact to existing systems

**Evolves with changing business requirements** 

- Based on workflows, not code
- No changes required to HMI/SCADA/DCS
- Easy and quick to change
- Customisable dashboards

Visualise information from disparate systems

- Custom and personalised dashboards
- Data from multiple sources

# **Our Project Services**

Smooth project management based on worldwide harmonised and standardised processes





Our Australian based Project Services team help to ensure your plant's optimal performance with engineering tailored to your requirements. For new (green field) or upgraded (brown field) plant projects, our engineering services help optimise plant measurement performance from the engineering to operation and testing phase with efficient and sustainable solutions. With state-of-the-art engineering tools, we complete the planning and design of the application and offer a flexible choice of system components. Our expert recommendations come with more than 60 years of field experience and intend to lead you to productivity excellence.

#### **QGC Pty Limited, Queensland**

The operations feature more than 30 gas processing facilities, water treatment plants and a two-train LNG export facility on Curtis Island. They produce natural gas from wells drilled into coal seams in the Surat Basin in the west of the state, and in addition are exploring for gas from coal seams in the Bowen and Cooper Basins.

We supported with project management, project engineering and to date have supplied in excess of 1000 flowmeters. We also carried out Oil & Gas documentation procedures which included rigorous procedure plans and FAT incorporation. We also involved third party inspections to ensure compliance with relevant standards.

Our Project Management Services include:

- Consistent execution both nationally and globally
- Dedicated Project Coordinator and Project Manager
- Specific project plan covering all deliverables
- Fortnightly progress reports
- Coordination and management of project specific packaging and shipping requirements
- Factory acceptance test (FAT) / site acceptance test (SAT) and commissioning services
- Backup of relevant project data (with optional online access)

Our Project Engineering Services include:

- Embedded engineering
- Project engineering
- Instrumentation sizing calculations using Endress+Hauser applicator sizing software
- Generation and population of data sheets using Endress+Hauser specification sheet producer
- Creation and population of project documentation database
- Electrical hook-up drawings
- Customer specific inspection and test plans

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## Endress+Hauser Australia as your Main Instrument Vendor (MIV)

The Main Instrument Vendor (MIV) approach involves a cooperative partnership between Engineering Procurement Consultants (EPC), end users, and an instrument vendor. This concept engages the instrument vendor early during the detailed engineering phase of the project. As the MIV, Endress+Hauser Australia are able to liase with all instrumentation suppliers to add value and expertise with proper equipment selection, system integration, and field architecture. The MIV strategy has been proven to reduce overall project costs, with earlier time to completion, and delivering far greater benefits to the end user.

Benefits to the EPC include:

- Reduced technical risk, with expert product selection, and application advice
- "Best of breed" control system and instrumentation combinations are possible, with complete flexibility independent of field technology using Hart, Profibus, Foundation Fieldbus or traditional analogue 4...20 mA systems.
- Project specific 2D drawings and 3D objects are available for advanced modelling

#### Beenyup Advanced Water Recycle Plant, Western Australia

The process of groundwater replenishment is carried out at an advanced water recycling plant. First ultrafiltration filters out suspended material and then reverse osmosis removes remaining dissolved material. Finally, ultraviolet light is used to remove any trace levels of micro-organisms that may remain.

Endress+Hauser Australia provided the plant builder with the project services such as, main instrument vendor (MIV), documentation, analyser panel design and fabrication.

## The Wonthaggi Desalination Plant, Victoria

The Victorian desalination plant has a guaranteed production capacity of 150 billion litres of water per year. This plant uses reverse osmosis desalination technology to turn sea water into freshwater.

Endress+Hauser Australia acted as the main instrument vendor (MIV) for flow, level, pressure and temperature. The main feature of this project was Network Engineering

- Reduced detailed engineering time and costs
  - Simplified procurement and reduced administration costs with a single vendor
- Smoother faster commissioning
- Reduced rework and minimised change orders
- Optimised logistics—warehousing, inspections and tagging

Among the many end user benefits that can be delivered using the MIV approach, perhaps the strongest is the ability to leverage Endress+Hauser's powerful Field Care Plant Asset Management Software. This means the project can be delivered together with a fully populated electronic database for maintenance and efficient management of all the field equipment, from day one.

The many other benefits include:

- Field Device Tool (FDT) based asset management tools with advanced diagnostics capabilities
- Fully Web-enabled Asset Management through W@M
- Uniform user interface for operators and maintenance personnel across the complete range of Endress+Hauser instruments.

# Amrun(South of Embley) Bauxite Project, Queensland

The Amrun project is a greenfield bauxite construction project in Far North Queensland. The site currently produces 22.8 million tonnes of bauxite in a year (by end of 2019) in the south of the Weipa Peninsula. The project involves the staged increase in production of up to 50 million dry product tonnes per annum.

Endress+Hauser Australia was appointed as the main instrument vendor(MIV) by Bechtel which was the project's EPCM (Engineering, Procurement and Construction Manager). We supplied the vast majority of the field instrumentation (flow, pressure, temperature, level, liquid analysis) including with 3rd party items from a large number of vendors. We supported our customer from FEED (Front End Engineering Design) to Operation by providing project management services, documentation and site commissioning to ensure finalising the project on time and within budget.

## Quality control and quality product means reliability

Endress+Hauser Australia has developed and implemented an integrated management system (IMS) in order to document the company's business practices, to better satisfy your requirements and expectations. The integrated management system meets the requirements of international standards ISO 9001:2015, ISO 14001:2015, OHS AS/NZS 4801:2001 and OHSAS 18001:2017.

This system addresses the design, development, production, installation, servicing and project management of process measurement products, services and projects. Services include but are not limited to commissioning, repair, maintenance, calibration and engineering.



Health & Safety Quality
0HSAS 18001 ISO 9001

SAIGLOBAL

SAIGLOBAL









## Safety by design

Process instruments are often installed in hazardous areas, inserted into extreme process pressures and temperatures, and exposed to all types of materials. They must have designs that manage the risks of these conditions over their life cycle. Each Endress+Hauser instrument begins with safe design and manufacturing procedures built on generations of past knowledge and experience, ensuring the highest level of mechanical integrity.

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#### Innovation

Endress+Hauser was founded over fifty years ago and has become synonymous with invention and innovation, with the invention of the vibrating fork level switch. Endress+Hauser has continued to invest in research and development and holds over 7800 active intellectual property rights worldwide.

Some standout innovations have included:

- Gammapilot The world first 2-wire loop powered nucleonic compact transmitter for point level detection, continuous level, interface and density measurement
- Field Xpert award winning tablet PC for mobile plant asset management in hazardous areas(Ex zone 2)
- iTHERM TrustSens award winning hygienic selfcalibrating temperature sensor, fully compliant to FDA 21 CFR Part 11 regulations and GMP rules



## MEMO()SENS

Memosens: Groundbreaking sensor technology

Memosens digitises the measured value in the sensor and transmits it to the transmitter via a noncontact, interference-free connection. Since it was launched in 2004, Memosens has become the leading global standard in liquid analysis. A broad portfolio of Memosens products has been improving the safety, efficiency, transparency and quality of processes in all industries ever since.

- 100% reliable: digital data transmission via inductive, corrosion-free bayonet lock
- Easy sensor connection
- Calibration and sensor information saved in the sensor head for predictive maintenance
- "Plug & Play" with pre-calibrated sensors increases process and measurement availability
- International standard



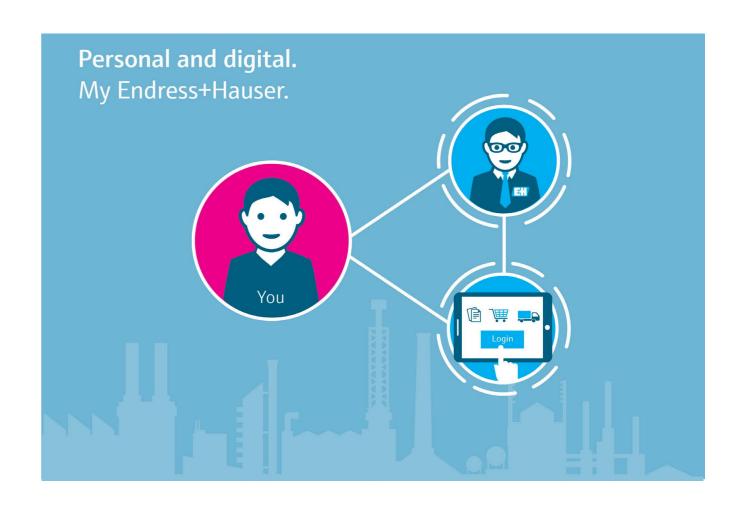
# Heartbeat Technology - unique verification function for maxmium plant availability

Heartbeat Technology is a one-of-a-kind diagnostics, verification and monitoring function for the optimised monitoring of process-critical instruments and processes. The benefits are clear: reduced testing effort, less downtime, and optimised maintenance. Other features include:

- Fully integrated testing and verification functions

   available for flow, level, temperature and analytical devices
- Can be performed anytime without process disruption
- Permanent instrument and process diagnostics for reduced maintenance and targeted remedial
- Metrologically traceable device verification (TÜV-certified):





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Your personalised account lets you easily conduct operations within a few minutes. View transactions, buy products, order spare parts, download technical documentation, add product lists and find the most suitable product for your application – in the office, in the field, on the go.

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- Access all technical information and documentation on your purchased products
- Personalise and share product lists within your business for recurring orders
- View product pricing with your company's pricing applied
- Track the progress status of your quotes and orders

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