

Banlaw are the Fluid Asset Intelligence people. We deliver connected and synergised Flow Logistics infrastructure, Resource Tracking technologies, and Safe Filling hardware products globally.

## Introduction

Since 1980, one company has focused on bringing fluid transfer and storage infrastructure, security and measurement processes, and safe filling products into a cohesive, synergised approach.

One supplier has gone beyond widgets and developed all-of-life-cycle techniques, tools, and services that deliver assured business outcomes and customer success.

One original equipment manufacturer has helped industrial organisations worldwide reduce their carbon emissions, their environmental risk, and the cost of managing their fluids and fleets.

One choice separates the best from the rest, now and into the future.

Choosing Banlaw means outstanding environmental and financial control, security, safety, and productivity performance that's only attainable with connected fluid management hardware, software, and built infrastructure.

Choosing Banlaw means every gallon or litre is measured, controlled, accounted for, and understood.

Choosing Banlaw means that every drop gets delivered where it's needed when it's needed.

Around here, we call that Fluid Asset Intelligence.





Fixed and mobile fluid storage and built infrastructure solutions







Measurement, access control, and data management technologies







Cleaner, safer, and more efficient fluid transfer and evacuation products



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# **About Us**

Banlaw empowers businesses with high-value fluids and energy assets to receive, store, transfer, dispense and control them. Our reliable products and intelligent connected technologies ensure safety, efficiency, visibility, and profitability. What's more, those attributes are delivered automatically without operator intervention via unobtrusive devices and seamless processes.

Banlaw ensures that only the correct amount of the proper fluid goes into each approved machine or storage tank. We create infallible, best-of-breed fluid security technologies and IoT devices that unlock actionable business insights based on data you can trust.

Banlaw is the only OEM in the world to manufacture a complete end-to-end fluid management solution, and it's guaranteed to be fit for purpose.

- Long-lasting fixed infrastructure for fluid storage, transfer, cleanliness, automation, and remote process control
- Service trucks, fuel carts, and other vehicle-mounted processes
- Industrial field controllers and Auto-ID fluid security technologies
- Enterprise-class resource management software
- Safe and efficient filling and evacuation hardware designed to optimise refuelling and maintenance whilst avoiding contamination

If it flows, it's Banlaw.

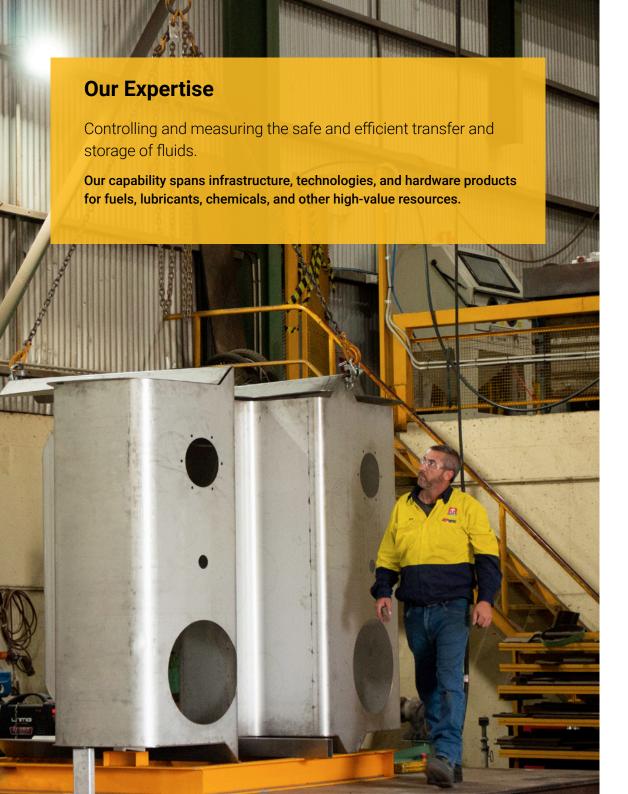








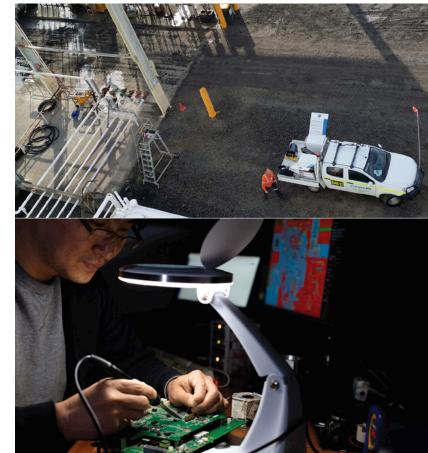
Customers choose Banlaw because they can trust us to deliver improved economic, environmental, and safety performance for their operations, now and into the future. We can be trusted to look ahead, to innovate, and to deliver on our promises.



Here at Banlaw, we have the scale and expertise to solve any fluid storage or transfer challenge.

Our manufacturing and innovation hub spans three facilities in Newcastle, Australia. It is where we bring together R&D, engineering, and high-performance manufacturing expertise to ensure that our built solutions and products are truly fit for purpose.

Our team of core engineers and subject matter experts are specialists in precision metal fabrication, facility maintenance, mechanical and electrical engineering, software development, mechatronics, IoT and embedded systems, process control, and hazardous areas.



Our factories feature the very latest metal handling and cutting technologies, gantries, spray booths, autonomous machining centres, industrial robots and product testing equipment.

Further separating Banlaw from other organisations is that we also staff our production facilities with craftspeople. Our manufacturing teams have an uncompromising focus on quality. Every fuel nozzle, every bulk storage tank, every oil coupling, and every loading arm or skid is thoroughly tested to ensure that it's safe and works optimally.

At Banlaw, we are excited and energised by the breakneck speed of change. With collaboration from our customers, distributors, and technology partners around the globe, we constantly innovate, helping our clients derive maximum value from their fluids, fleets, and facilities.





# **Global Reach**

Enabling industry-leading fluid management performance for worksites worldwide is a big job.

- ▶ We wish for our clients to have reliable fluid management infrastructure, security, and measurement technologies that give them absolute control.
- ▶ We wish for our clients to have fluid transfer products that create safer, more productive worksites that are gentler on the environment.
- ▶ We wish for our clients to be well supported, with a proactive local presence, advice to continually improve performance, and life-cycle services that minimise business risk.

Banlaw has created a global ecosystem of distributors, repairers, technology partners, and our own operations to achieve these outcomes. Together, we ensure that worksites using Banlaw technologies get the best value from their investment, and are locally supported in their own language by distributors who bring their own context and expertise.

### Where are we located?

### **Manufacturing and Innovation Hub**

Spread across three facilities in Newcastle, NSW, Australia

### **Stocking and Field Service Hubs**

Supporting our distributors and mobilising for client projects worldwide

- Salt Lake City, Utah, USA
- Perth, WA, Australia
- Mackay, QLD, Australia
- Newcastle, NSW, Australia

### **Distributors and Banlaw Technology Partners**

Over 60 skilled distributors provide local language and local support wherever you are, backed up by Banlaw engineering, technical support, and field service teams 24/7.



At Banlaw, we empower our industrial customers wherever they are with fluid resource management solutions. We do this by providing smart, reliable, and safe solutions to manage fuel, oil, hydrogen, and all other high-value fluid assets.



# 2010s

First to integrate RFID technology inside fuelling equipment for absolute validation of fluids dispensed into each asset. Revolutionised and automated tank overfill prevention for heavy haul rail, and other offroad industries

Safe Filling • Connected Technologies

# 2020s

First to use IiOT in a synergised way to automate fleet utilisation data capture, fluid asset security, fuel consumption monitoring at a machine level, along with facility performance, stock management, and company reporting

Flow Logistics • Fluid Asset Intelligence

# **FlowLogix**

Banlaw FlowLogix<sup>™</sup> is the term for our built-solutions expertise. Our significant engineering and metal fabrication capabilities include fluid infrastructure pipework, tank farms and transportable fluid storage solutions, vehicle-mounted industrial process units, and modular ready-to-deploy skids and containers.

Our infrastructure projects and asset life-cycle services ensure that client organisations can invest with certainty that the required outcomes will be delivered.

Customers choose Banlaw because we can be trusted to deploy long-lasting fluid management infrastructure that's automated, digitised, and future-ready.

### **Engineering**

Banlaw's engineering division designs pipework and fully-customised fluid infrastructure solutions to your specific scope. That means we've got you covered whether you need a couple of diesel storage tanks, a filtration skid, or maintenance facilities that will service tens of machines simultaneously.

Banlaw Engineering creates solutions of premium design targeted to the geographic location and physical scale of a very wide range of facilities. Engineered solutions from Banlaw are always fit for purpose and minimise your environmental and production risks. We also understand that a rapid return on investment requires that we protect your budget as well as your people.

## **Projects**

- Industrial process units for explosives, chemicals, energy assets, and more
- Vehicle-mounted solutions, including tankers, service trucks, and plant equipment upgrades
- Receipt, storage, and transfer infrastructure for lubricants, fuels, liquid foods and other high-value fluid assets
- ► Remote process control and automation capabilities, such as automated stock rotation for fuel farms, or remote start/stop functionality for pumping solutions
- Safety-enhanced infrastructure; such as SIL-rated tank overfill prevention systems, military spec construction and certification, or deployments in explosive environments









### **Modular Solutions**

Our ready-to-deploy skids and containers target each phase of the fluid management process. This enables affordable staged upgrades to existing infrastructure, as well as a simplified installation at some of the most remote worksites on the planet.

### **Deliver**

- Bulk air elimination
- Inwards metering and temperature compensation
- Fuel filtration
- Pumping and remote pump control systems

### **Store**

- Overfill protection
- ► Transportable and self-bunded fluid storage tanks
- Precision, real-time automatic tank gauging

### Dispense

- Fuel and lubricant dispensing skids
- Loading arms and hose reels
- Secure Auto ID technologies suitable for lubricants, splash fill processes, dry break refuelling, and bulk transfer processes

### Fuel Farm in a Box

All-in-one fluid management skids and containers is a Banlaw speciality. These flexible units have had all the most called-for features distilled into a compact, pre-assembled, pre-tested, ready-to-deploy unit.



### Does your worksite move over time?

A containerised solution could be perfect when you need to move your dispensing equipment to minimise fleet travel time.



### **Services**

A fluid resource management system and the liquids it monitors, protects, and controls is a significant business investment. We believe that fixed infrastructure, mobile fluid storage assets, vehicles and plant equipment, along with the technologies that tie it all together, should be treated as the asset it is.

Banlaw's services organisation exists to ensure our clients achieve immediate and long-lasting Value in Use (ViU), HSE improvements and ongoing operational optimisations that contribute to profitability. We've even codified it into our Customer Pathway to Success, a replicable framework for delivering assured business outcomes.

### What you can expect from Banlaw Services:

- Site hydrocarbon inspections of facilities and machines to ensure that your site is compliant, or identify how to get to that point quickly
- Tripartite collaboration with your local Banlaw Distributor or Technology Partner to ensure you receive optimum performance, value, and local-language support

- Proactive on-site maintenance services related to fluid management.
  Mitigating the risk of unexpected component failure
- Installation of pressureless overfill protection solutions, calibration of flow meters, equipment upgrades, through to complete fluid management systems when the required skills are not locally available
- 24/7/365 technical support to complement your team with troubleshooting assistance, remote software configuration, or hardware component enquiries
- Scheduled system health checks and continuous improvement insights that provide your business with an ongoing data-informed performance improvement roadmap

Banlaw's Customer Pathway to Success is our commitment to service excellence. It's a framework that includes OEM standard templates, FMS process coaching, and site services to ensure operational certainty in line with your fluid resource management goals.



# ResTrack

Banlaw ResTrack™ is our fluid asset security, management, and insights offering. We've been creating fluid management systems for decades, and they're known for industry-best security and data accuracy. This is important because when you have 100% validation of which machine every gallon or litre has been dispensed into, and if you know exactly how much fluid you have purchased and have in your storage tanks, you can reconcile.

# The reason we focus so closely on security and how much fluid is stored and transferred relates to what it unlocks:

- Only pay for the fluids you receive, eliminate fuel theft, and rapidly identify leakage due to equipment degradation
- Leverage real-time visibility to unlock just-in-time delivery, ensuring operational risks are managed, and that money tied up in stored fluids is minimised
- Simplify fluid accounting, so you can report your CO<sup>2</sup> emissions, minimise the fuel excise you pay to the government, and make data-informed decisions on the journey to Carbon Neutral
- Gain deep insights into the productivity of your facilities and your fleets, allowing you to target operator education, prioritise process automation, perform maintenance based on symptoms rather than break-downs, and deploy resources where they will have the most significant productivity impact

The visibility and accountability that comes from a modern fluid asset management solution creates savings and performance improvements you can bank on. It yields completely replicable outcomes, helps develop a culture of productivity, and limits your business risk and exposure to unplanned outages.



Fluid Security



CO2 Emissions & Fuel Accounting



**Operational Certainty** 



**Productivity Gains** 



Reduced Business Risk & Cost



**Industrial Internet of Things** 





### **Controllers**

Banlaw field controllers manage fluid security, access authorisation, and also control pumps, ball valves, and IoT devices. They display and accurately capture data on fluid transfers, tank levels, and fleet utilisation metrics such as engine hours or odometer readings. Banlaw field controllers are deployed near unloading and dispensing points, bulk storages, and on service vehicles. Remote process control functionality, automated stock rotation, and the integration of electronic safety systems are also typical project deliverables.



### **Xpress Controller**

- Number of Storage Tanks Monitored Up to 4
- Number of Fluid Transfer Functions 1 to 4
- ▶ User Interface 7" colour touch screen



#### **Advanced Controller**

- Number of Storage Tanks Monitored No limit
- Number of Fluid Transfer Functions 1 to 16
- ▶ User Interface 10.1" colour touch screen



#### **Tank-Side Contoller**

- ▶ Number of Storage Tanks Monitored 1 to 4
- Number of Fluid Transfer Functions 0
- User Interface Optional digital display

### **Software**

The data collected by our field controllers is automatically aggregated and analysed within ResTrack RMS, our fluid resource management software solution. ResTrack RMS provides complete visibility anywhere, any time, on any device with a web browser. It delivers accurate reporting, reconciliation, notifications when you need them, and compliance across all of your high-value fluid assets. Software deployments can be hosted in the cloud or on your own company network, and our highly customisable API transfers data between ResTrack and your other company databases automatically.









Theft and behaviour



Maintenance scheduling



Fleet Optimisation





### **Connected Technologies**

Attaining industry-best fluid security, precise reconciliation, and powerful business insights requires industrial fleet and fluid management processes combined with IoT capabilities.

### **ResTrack Connected Technologies**

- ► Equipment Auto ID High-flow and splash fill dispensing equipment with the most secure equipment identification capabilities as standard, as well as long-range RFID devices
- ▶ User Auto ID ID cards and vehicle fobs for controlling and associating employee and contractor fluid usage
- ► Fluid Transfer Metering flow meters and temperature probes for accurate compensated measurements
- ▶ Levels Measurement Guided wave radar and float switch devices for real-time tank levels on fixed and mobile fluid storages
- On-Board Devices wirelessly capture odometer and engine hours data from your fleet, allowing analysis of burn rates, simplified maintenance scheduling and fleet optimisation
- ► Cleanliness electronic filter condition and particulate measurement to support predictive and preemptive maintenance processes

Introducing Banlaw SecureFill™, the pinnacle of fuel security and equipment Auto-ID technologies.



Totally unique to Banlaw is our patented, world-first, wireless heavy vehicle Auto-ID refuelling equipment. Not only does it feature the highest quality dry break couplings, but we have also integrated the fuel security technologies inside where they cannot be tricked, tampered with, or broken off due to the rigours of use on industrial worksites. Banlaw SecureFill<sup>TM</sup> products are secure, robust, and easy to install and maintain.

# **Banlaw - the Resource Tracking specialists**

# **FillSafe**

Banlaw FillSafe $^{TM}$  is our portfolio of safe filling products. It includes high-flow diesel refuelling components, fluid transfer and evacuation products for machine servicing, and tank overfill prevention solutions to ensure that industrial fluids are handled as safely as possible.

Cleaner. Faster. Safer.



# Filling safely since 1980

The first products Banlaw ever created were innovations to allow for the safe filling of industrial machines. At the time, operator injuries were frequent, fuel spills and oil leaks were commonplace, and fluid transfer components were treated as expensive throw-away items. We were not satisfied with any of that. From day 1, Banlaw has been all about the quality, producing long-lasting equipment that performs optimally on real worksites whilst protecting people, equipment, and our environment.



### Refuelling

Rapidly and automatically fill mobile equipment and stationary diesel tanks with filling hardware that has stood the test of time. Our nozzles, receivers, tank vents, swivels, break-away valves, and fine-filtered remote breathers all contribute towards optimum fleet and workforce productivity.

- Reliable automated diesel refuelling
- ► Industry-leading flow rates
- Metal where it matters for longevity
- Dry break design to avoid leaks and spills
- Contamination prevention features that extend engine component life and reduce CO<sup>2</sup> emissions
- A range of nozzle and receiver spring settings to allow refuelling issues to be configured out of the system
- A global network of Authorised Nozzle Repairers for superior lifetime product value and minimised safety risk
- Made from endlessly recyclable materials such as stainless steel and aluminium



### **Fluid Transfer & Evacuation**

Our fluid transfer products eliminate the risk of cross-contamination, prevent particulates such as mud or ore from being introduced into the fluid stream, and make equipment servicing processes dramatically more efficient. As with all of our products, they are designed for industrial environments. Our fluid transfer components are exceptionally durable and will not leak.

- Dry break functionality avoids leaks, so when a fluid transfer is complete, couplings separate into two fluid-tight components
- No chance of cross-contamination. Only matched nozzles and receivers will connect, and colour-coded caps and bodies assist operators
- Flush-faced design means no deep recesses to accumulate mud
- ▶ Stainless steel mating surfaces allow components to last for years
- A unified evacuation coupling rapidly removes lubricants using a vacuum, keeping waste oils clean and ready to be returned for recycling
- Excellent flow rates due to sound engineering mean quicker top-ups and machine servicing
- ► Ergonomic design is intuitive to use and features a simple push-to-connect operation



### **Tank Overfill Protection**

Banlaw's tank overfill protection products avoid overfills, underfills, throttled / sluggish fill speeds, and they guarantee that a tank will be filled to the optimum ullage every time. Protecting your people and equipment is a key reason for installing tank overfill prevention products, but there are numerous ways in which these solutions contribute to a more efficient, more profitable workplace.

### FillSafe Power - Electronic Overfill Protection System

- Suitable for all types of fluids
- ► Totally unrestricted by flow rate
- ► Can be deployed with fire-safe components
- Multiple pre-set fill levels can be selected
- ▶ LEDs on the controller provide feedback to the operator

FillSafe Power is considered the go-to solution for critical machines such as railway locomotives, mining excavators, and maintenance vehicles where multiple fluid compartments must be safely filled with different liquids.



#### FillSafe Zero - Mechanical Overfill Protection System

- Offers exceptional fill speeds for diesel tanks on all kinds of mobile equipment and stationary tanks
- ► Totally pressureless Zero pressure build-up in the tank
- Extremely cost-effective, sometimes costing less than a tank of diesel
- A wide range of kits and adaptors allow for simple and quick installation so that components can be fitted during routine maintenance
- Suitable for vehicles with multiple fuel tanks, and for overcoming challenging tank filling scenarios safely

FillSafe Zero is favoured for stationary plant equipment and most offroad vehicles due to its accessible price point and ease of installation.



Tank overfills and the spills, sprays, tank damage, and fires they cause are completely avoidable. Resource regulators are taking off the gloves in many jurisdictions, and implementing zerotolerance policies regarding hydrocarbon spills and mobile equipment fires.



Banlaw FillSafe™- it's in the name! Safe Filling equipment that doesn't compromise on quality.



III Engineered Fluid Infrastructure.

Automated Monitoring & Control Technologies.

Products designed to Fill Safe and guaranteed to last.

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