Banlaw can provide you with innovative, integrated and secure refuelling and hydrocarbon management systems to help you to control costs and ensure fuel security.

This Australian company has more than 30 years experience in the design, manufacture and implementation of world class hydrocarbon management systems for the mining, rail, fleet and port industries. It currently exports to 25 countries.

Banlaw’s highly skilled staff have a reputation for technical expertise and a total commitment to quality and service. A commitment to research, development and quality ensures it provides systems and products to the highest standard. Its Quality Assurance System is accredited by Lloyds Register to AS/NZS ISO 9001.

Why Banlaw?
Banlaw has the people, products and services to manage all your refuelling and hydrocarbon management needs.

- World best technology - patented systems
- Built for tough operating conditions
- Customised, integrated systems and components
- Innovative R&D program
- Complete range of services and ongoing support.

Capabilities
- Audit services
- Consulting services
- Customised refuelling systems
- Customised hydrocarbon management systems
- Refuelling components
- Customised monitoring and reporting systems
- Ongoing technical support
- Maintenance services
- Refuelling facilities management
- Project management
- Diesel meter calibration.
Precise monitoring, reconciliation and centralised reporting of fuel use.

Banlaw FuelTrack™

Be in control. Save money.

Being able to secure and track fuel use is vitally important, particularly with high fuel prices.

Banlaw FuelTrack™ enables the precise monitoring, reconciliation and centralised reporting of any machine or vehicles’ fuel or liquid use.

The system is readily adaptable to track, control and record the use of all hydrocarbons dispensed by vehicle, tank and distribution point. Vehicles and contractors are automatically identified by a range of different ID mechanisms including smart keys or Auto ID dry break nozzles and receivers.

FuelTrack’s™ user friendly reporting system creates information rather than data, making it a powerful money saving, management tool for business.

FuelTrack™ assists with:
- fuel security
- environmental compliance
- stock reconciliation
- maintenance scheduling
- cost analysis
- the calculation of burn rates
- fuel ordering and
- claiming tax credits.

FuelTrack™ can help with compliant management for fuel tax credits and carbon trading schemes. It is accredited by the Australian Government’s National Measurement Institute.
Ensure zero overfill and zero tank pressure in any environment.

Banlaw FillSafe™
Transfer fuel safely and efficiently.

Banlaw FillSafe™ ensures zero overfill, zero tank pressure and zero spillage during refuelling in any environment. Rates of 1000 litres (265 gallons) per minute can be achieved with no increase in tank pressure.

FillSafe™ works on a variety of mining and rail equipment including locomotives, excavators, haul trucks, and shovels.

The electrical level sensor on the fuel tank ensures automatic termination of fuel flow once the tank is full. FillSafe™ removes the guesswork and manual checking of tank levels.

The leak free connection between nozzle and tank also prevents contaminants entering the fuel tank - delivering improved performance outcomes and reduced downtime for each machine.

The associated diagram is for illustration purposes only and is not to scale.
**Nozzles - 1000 Series**

**Flowrate Range Diesel**
1000 Nozzle 400-1000 LPM / 106-264GPM

**Toughest**
- Patented system built for tough operating conditions
- Stressed and wearing parts manufactured from steel not plastic

**Safest**
- Ergonomically designed - easy to use/latch
- Dependable ball locking mechanism means the nozzle cannot ‘fly off’
- Automatic shut-off
- Anti-static hose is statically earthed

**Cleaner Environment**
- Dry break disconnection minimises leakage

**Best Investment**
- Highest possible flow rates
- Choice of 5 shut-off pressure settings
- Repairable, not disposable
- Compatible with FillSafe™ and FuelTrack™ systems

**Mass (with plug):** 4.3 kg (9.5 lbs)

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**Legend:**
1. All flow tests conducted using S150 #4 fuel (S80-80, S55S5 nominal)
2. Head Loss (HL) includes Banlaw AUS43 Receiver
3. All gauge pressure measured within 2" bore
**Nozzles - 800 Series**

**Flowrate Range Diesel**

800 Nozzle 90-800 LPM / 24-211GPM

**Toughest**
- Patented system built for tough operating conditions
- Stressed and wearing parts manufactured from steel not plastic

**Safest**
- Ergonomically designed - easy to use/latch
- Dependable ball locking mechanism means the nozzle cannot ‘fly off’
- Automatic shut-off
- Anti-static hose is statically earthed

**Cleaner Environment**
- Dry break disconnection minimises leakage

**Best Investment**
- Highest possible flow rates
- Choice of 5 shut-off pressure settings
- Repairable, not disposable
- Compatible with FillSafe™ and FuelTrack™ systems

**Mass (with plug): 3.4 kg (7.5 lbs)**

---

**Mass (with plug): 3.4 kg (7.5 lbs)**

---

**Graph: Barlow BPM100 Series Refuelling Nozzle**

**Legend:**
1) Flow rate conducted using DIESEL实 (15-20°C)
2) Head Loss (2) includes Barlow BRM23 Receiver (results will vary with other units)
3) Barrow pressure measured within 2” hose
**How to use your Banlaw nozzle**

1. Wipe the receiver with a clean rag to remove dust & contaminants.
2. Remove the nozzle from the holster. Ensure the handle is locked in the OFF position. Retract the actuator and push the nozzle on to the receiver. Release the actuator to lock it on.
3. Turn on the nozzle by pulling the trigger and rotating the operating handle to the ON position. If necessary, press the START button to start the pump.
4. Remove the nozzle by retracting the actuator. If necessary, press the STOP button to stop the pump.
5. Put the nozzle back in the holster and lock in place. Check the drive away indication light to make sure the nozzle is locked in place.
6. Put the receiver cap back on to prevent contamination.

---

**Rail**

- BPR800 Nozzle
- AUS23R Receiver
- AUS25R Vent with AUS25AA-1 Coupling

**Hydraulic**

- BPH800 Nozzle
- AUS23B Receiver
- AUS25A Vent with AUS25AA-1 Coupling
Filtered Vents

Protect your fuel system from the damaging effects of airborne particle contamination.

Filtered Vents

Heavy equipment typically operates in dusty, dirty conditions. Banlaw’s filtered vent comes with a serviceable air filter within the vent cap to prevent particles from entering the tank.

- Extend the life of your fuel filters
- Reduce the incidence of blocked filters and equipment downtime.

High Quality Filter Element

- 10μm nominal rating
- Triple layer multi density foam
- Excellent chemical resistance
- Positive seal between mating surfaces
- Field serviceable
- High flow capability with low restriction
- High retention capacity & extended service life.

Features:

- Suitable for flat or round top fuel tanks
- Vapour relief pressure approximately: 110 kPa (Red cap) and 49kPa (Green cap)
- Minimum 3/4” N.B. throughout
- 1/16” bleed hole
- Splash tube (except on Rail spec vents)
- 2” NPT male tapered threads
- ‘O’ Ring seals provide reliable & extended service
- Relief valve exhaust bypasses filter element.
Manage flow rates to ensure protection from overfill in any operating environment.

Flexible vent solutions
- A flexible and complete range of vents for all applications and OEMs.

Faster refuelling
- A Banlaw vent will cater for refuelling rates of ≤800 LPM (211GPM).

Rugged construction
- High quality and built tough
- Made from cast aluminium. No plastic.

No spill
- Patented splash tube ensures the correct operation of the float balls at all times
- Reliable and durable o’ring seals provide superior performance and service life. Guaranteed sealing under filling.

**Vent Accessories**
Used to assist in the installation and correct positioning of vents to various tanks.
Standard Vents

Vent cap colour indicates relief pressure setting:
- 110kPa - (16psi)
- 49kPa - (7psi)

*Note: AUS25E Series Vents supplied only with Gold coloured steel caps

Vent Product Numbers

<table>
<thead>
<tr>
<th>Vent Configuration</th>
<th>To Suit Flat Top Tanks</th>
<th>To Suit Round Top Tanks</th>
<th>Low Profile Mining</th>
<th>Railways</th>
</tr>
</thead>
<tbody>
<tr>
<td>2” NPT</td>
<td>AUS25A</td>
<td>-</td>
<td>-</td>
<td>AUS25R</td>
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<tr>
<td>2” NPT Extended Vent</td>
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<td>AUS25C</td>
<td>AUS25C-L</td>
<td>-</td>
</tr>
<tr>
<td>2” NPT Extended Vent</td>
<td>-</td>
<td>AUS25C</td>
<td>AUS25C-L</td>
<td>-</td>
</tr>
<tr>
<td>With Hose Tail</td>
<td>AUS25A-C</td>
<td>AUS25C-C</td>
<td>AUS25C-C-L</td>
<td>AUS25E-H</td>
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<td>Flanged (Tamper Proof)</td>
<td>AUS25B</td>
<td>AUS25B-L</td>
<td>AUS25D-L</td>
<td>-</td>
</tr>
<tr>
<td>Flanged with Hose Tail (Tamper Proof)</td>
<td>AUS25B-C</td>
<td>AUS25B-C-L</td>
<td>AUS25D-C-L</td>
<td>-</td>
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<tr>
<td>Filtered Vent</td>
<td>BP125A</td>
<td>BP125A-L</td>
<td>BP125C-L</td>
<td>BP125R</td>
</tr>
</tbody>
</table>

BANLAW PRODUCTS GUIDE

ReFuelling 11
High quality accessories to ensure you get the best from your refuelling system.

Banlaw Accessories

Banlaw’s receivers, swivels, valves and anchors are made from the highest quality materials like zinc plated steel and anodized aluminium to ensure they withstand harsh everyday treatment.

Caps provide protection when the nozzle and receiver are not connected. Made from aluminium or polyurethane, they are light and durable.

Prolong the life of your equipment by only using Banlaw accessories.

We recommend the use of caps for all receiver and plugs for all nozzles to protect your equipment and prevent contamination.

Operation Sign AUSOPSIGN-2

Accessories

Zinc Plated Steel Swivels various sizes available
AUS10 Shown

Anodized Aluminium Swivels various sizes available
AUS50 & AUS52 Shown

AUS23C Cap
AUS23C-R Cap
AUS43C Cap
800 Anchor AUS21A049

Breakaway Valve

1000 Anchor AUS22049

AUS24A
Shell Receiver & Cap

Partial Hex Receiver Socket (AUS23SOCKET)

Full Hex Receiver Socket (AUS-RSOCKET)
Check Valve Fuel Receiver

The best anti-theft mechanism

Banlaw Check Fuel Valve Receiver *

The unique, patented design of the Banlaw Check Valve Receiver is unlike any other product on the market.

- Banlaw’s Check Valve Receiver cannot be over-ridden, eliminating fuel theft via the receiver.
- Intelligent design of the flow path generates low pressure. This prevents the increased risk of premature shut-off of pressure sensitive refuelling nozzles.
- Versatile design allows installation either directly into the fuel tank or the pipework (min 2”)
- Manufactured to exacting standards using high quality materials to withstand harsh operating environments.
- The receiver body can be replaced without the need to drain the tank.
- Model available to suit Banlaw FuelTrack™ auto ID system.

*International patent pending

The associated diagram is for illustration purposes only and is not to scale.
**Nozzle Holster**

Minimise contamination and increase flow rates during fluid transfer.

- **Higher flow capability**
  - Available in NPT thread sizes to suit current industry specifications and larger configurations to maximise flow-rate capability.

- **Flush face design**
  - Minimises contamination
  - Reduces wear on mating seals and other components.

- **Push to connect system**
  - There is no need to retract the actuator collar during connection making them easier to use, particularly in tight confines.

- **Colour coded**
  - For easy identification.

- **Durable**
  - Ball lock latching mechanism for a stronger connection
  - Unique Dry Break technology eliminates spillage
  - Constructed from brass, zinc plated steel or anodized aluminium.

**Banlaw Nozzle Holster**

Protect nozzles and minimise contamination.

Leaving a nozzle on the ground increases the risk of it being cracked or worn. It also increases dirt and contaminants that can end up in your fuel. Banlaw’s nozzle holster keeps nozzles safely off the ground.

The holster also has an integrated drive-away notification system. If the nozzle is not placed correctly in the holster or is still connected to the truck the driver is alerted by an alarm.
Receiver dust caps available

Size 1 Brass

Size 5 Green

Size 4 Black

Size 6 Blue

Size 3 Red

Size 2 Gold

Fitting Type | B | C | D | E | F | G | H | J
---|---|---|---|---|---|---|---|---
BPLR1 | 91.5 | 64 | 46 | * | * | 63 | 41 | 24 | 20
BPLR2 | 93.5 | 65 | 48 | * | * | 66 | 46 | 25 | 21
BPLR3 | 97.0 | 68 | 50 | * | * | 67.5 | 46 | 28 | 21
BPLR4 | 110.5 | 76.5 | 55 | * | * | 75.5 | 50 | 31.5 | 21
BPLR5 | 115.5 | 80 | 58 | * | * | 79 | 53 | 33 | 22
BPLR6 | 124.0 | 89.5 | 62 | * | * | 79 | 56 | 37 | 22

Nozzle & Receiver Connected (See table at right)

Dimensions

Thread Configurations - Receivers (Male) - Nozzles (Female)
Size 1 Couplings available with 1/2" & 3/4" on Receiver and 3/4" & 1" on Nozzle
Size 2,3,4 & 5 Couplings available with 3/4" & 1" on Receiver and Nozzle
Size 6 Couplings available with 1" & 1-1/4" on Receiver and Nozzle

On Vehicle Locations for LubeCentral™ Service Box

Layout of Service Box can be designed to suit customer requirements

Possible On Vehicle Locations

Delivery & Evacuation Hoses

Section A-A
Banlaw Classic Range

- Ball lock latching mechanism for a stronger connection between nozzle and receiver
- Delivery of a higher safe working pressure for increased safety
- Unique Dry Break technology eliminates spillage

Technical Specification

1. A safety factor of approx. 4 has been applied to the burst pressure in order to obtain the Safe Working Pressures (S.W.P.) quoted for the Classic Range

2. Unless noted otherwise, all fittings are manufactured from zinc plated steel components, fitted with Viton seals. All plugs and caps are manufactured from Acetal (plastic).

Part Numbers

<table>
<thead>
<tr>
<th>Type</th>
<th>Basic Fitting</th>
<th>Tailpiece</th>
<th>Additional Part</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1/2&quot; NPT</td>
<td>3/4&quot; NPT</td>
<td>1-1/16&quot; JIC</td>
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<td>Crankcase</td>
<td>AUS27W</td>
<td>27W-B</td>
<td>STD 27WB/H</td>
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<td></td>
<td>AUS29W</td>
<td>29W-B</td>
<td>STD 29WB/H</td>
</tr>
<tr>
<td></td>
<td>AUS29L</td>
<td>29L-B</td>
<td>STD 29LB/H</td>
</tr>
</tbody>
</table>

STD: supplied as standard - option not applicable
Commonly used to fill and evacuate hydraulic oils
Safe Working Pressures
AUS34A: 10 MPa (1450 psi)
AUS41A: 10 MPa (1450 psi)
Coupled Nozzle & Receiver: 4.0 MPa (580 psi)
Max. recommended flow rate: 100 LPM (26.4 GPM) - ISO 46 oil

Part Numbers

<table>
<thead>
<tr>
<th>Type</th>
<th>Basic Fitting</th>
<th>Tailpiece</th>
<th>Additional Part</th>
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<tbody>
<tr>
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<td>AUS32W</td>
<td>32W-B</td>
<td>STD</td>
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<td>AUS33W</td>
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<td>AUS34A</td>
<td>STD</td>
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<td>AUS41A</td>
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<td>Coolant</td>
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<td>AUS36A</td>
<td>36A-B</td>
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<tr>
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<td>STD</td>
<td>-</td>
<td>AUS37W-C</td>
</tr>
</tbody>
</table>

*Not Standard Product - But can be supplied on request.
STD: supplied as standard - Option not applicable
**Classic Range**

- Commonly used to fill and evacuate oils
- Safe Working Pressures
  - AUS38W: 10 MPa (1450 psi)
  - AUS39W: 1.5 MPa (217 psi)
- Coupled Nozzle & Receiver: 10 MPa (1450 psi)
- Max. recommended flow rate: 100 LPM (26.4 GPM) - ISO 46 oil

**Part Numbers**

<table>
<thead>
<tr>
<th>Type</th>
<th>Basic Fitting</th>
<th>Tailpiece</th>
<th>Additional Part</th>
</tr>
</thead>
<tbody>
<tr>
<td>Push to connect</td>
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<tr>
<td>AUS38W</td>
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<td>AUS39W</td>
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<td>Alternative</td>
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<td>AUS80A</td>
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<td>STD</td>
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<tr>
<td>AUS81A</td>
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<td>STD</td>
<td>-</td>
</tr>
</tbody>
</table>

*Not Standard Product - But can be supplied on request. STD: supplied as standard - option not applicable*

**R Series Alternative Fittings**

- Alternative higher flow fittings used to fill and evacuate oils
- Safe Working Pressures
  - AUS80A: 6 MPa (870 psi)
  - AUS81A: 2.5 MPa (365 psi)
- Coupled Nozzle & Receiver: 2.5 MPa (365 psi)
- Max. recommended flow rate: 180 LPM (47.6 GPM) - ISO 46 oil
Banlaw AUSGR & AUSGN fittings are specifically designed for the bulk transfer of grease.

- Provides ease of connection
- Able to connect/disconnect under pressure, utilising a standard off the shelf valve on the delivery line
- Robust, zinc plated
- Easy to use

### Part Numbers

<table>
<thead>
<tr>
<th>Type</th>
<th>Nozzle</th>
<th>Receivers</th>
<th>Additional Part</th>
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</thead>
<tbody>
<tr>
<td>Grease</td>
<td>AUSGN</td>
<td>AUSGRN</td>
<td>AUSGRB</td>
</tr>
</tbody>
</table>

**Classic Range**

**Grease**

- AUSGRC Receiver Cap
- AUSGR Receiver
- AUSGN Nozzle
- AUSGNP Nozzle Plug

**One Way Valve**

- AUS3W

**Oil Sample Valve**

- AUSV3
Banlaw can help you to achieve improved:

- fuel security
- environmental performance
- cost control
- contamination control
- custody transfer
- compliance to assist with managing fuel tax credits and carbon trading schemes.

**Distributed Worldwide**

**Contact us**

For information on the complete range of Banlaw products and services or for product updates please call us or visit our website.

Banlaw’s extensive worldwide network of distributors and repairers can also offer prompt, factual, technical advice and product support.

Call for a full consultation. **Banlaw** Pty. Ltd.

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September 2008

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