



THE EVOLUTION OF PREFABRICATED STEEL MAINTENANCE PITS

AIR HYDRAULIC TWIN RAM PIT JACK



IN-GROUND PLAY DETECTOR



ROLLER BRAKE TESTER



AXLE LOAD SIMULATOR



**HOW THE LATEST TECHNOLOGY IS DRIVING
EFFICIENCY IN AUSTRALIAN WORKSHOPS**

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The rise of the steel workshop pit

Not long ago in Australia, concrete workshop pits were the industry norm. They had changed very little since their inception, being strong and easy to construct in a material familiar to the construction industry

Despite these merits, the advent of prefabricated steel pits offered a host of advantages over traditional concrete pits:

- Their speed of installation (thanks to offsite construction) means they are far cheaper, with a less labour-intensive build time.
- For technicians, prefabricated steel pits provide a work environment that's dry, environmentally safe, and far more comfortable to work in.
- They offer a significant range of options for customisation, particularly integration of other services and associated code requirements.

Today, Levanta's workshop service pits have progressed even further. Straight sided prefab pits have given way to cantilevered design that incorporates load bearing rails, advanced lighting systems, tool alcoves, and a range of safety elements.

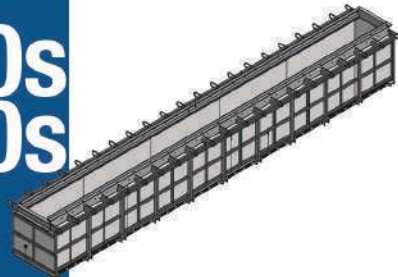
These design elements – unique in Australia and New Zealand – have evolved thanks to Levanta's extensive experience working with multiple clients across multiple industries.



THE EVOLUTION OF PREFABRICATED WORKSHOP PITS

Prefabricated drop in steel pits prove their value in terms of installation speed (in days, not weeks), consistent quality, and safer working environments.

1990s
2000s



20
10s

Levanta standardise modular fitouts (with integrated jacking rails, stairs at both ends, pre graded floors to central sumps) and develop turnkey packages (including lighting, ventilation, lubrication, and diagnostics).



A focus on structural performance (with higher rollover capacities), hazardous area compliant ventilation & electrics, and rapid national deployment. In 2025, Levanta acquires Hartex to combine nearly four decades of pit engineering into one national team.

20
20s



Into the
future

The Levanta pit is now a cantilever style, concrete composite system with integrated rails and anchors designed to carry and divert loads into the concrete envelope, not just into a thin steel wall.



How Levanta pits meet our clients' needs

The Levanta design team works closely with our clients to ensure each pit design meets their unique operating environment. We take into account not only the vehicle fleet, engine types, and work to be undertaken, but also any potential hazards from the vehicle load (laden or unladen) as well as the ground conditions on-site.

Levanta prefabricated maintenance pits are designed to meet our clients' specific requirements. Far from simply being "a box in the ground", they are a fully engineered solution that meets all relevant design codes and legislative requirements.

Thanks to our detailed understanding of the market's changing needs, Levanta's prefabricated pit design will continue to evolve – while our competitors can only copy what we used to do.

Features of Levanta's current pit designs

- Fully engineered jacking rail on the top of the pit (not just a 100mm angle)
- Extra width inside the pit for more room and less constriction, making it easy to work in
- 50mm fall in the floor to sump for ease of hosing out the pit to keep clean
- Lead times of just 5-6 weeks from signed drawings

Unique to Levanta:

- Sandblasted and 2 pack epoxy on the inside of the pit, making it extremely easy to keep clean
- 6mm sheet on the floor, 5mm on the walls
- 20 year warranty, offered by no other pit manufacturer
- Manufactured in-house by Levanta.



Workshop pits technology comparison



Levanta cantilevered pit

Typical straight-wall pit

Load path & structure

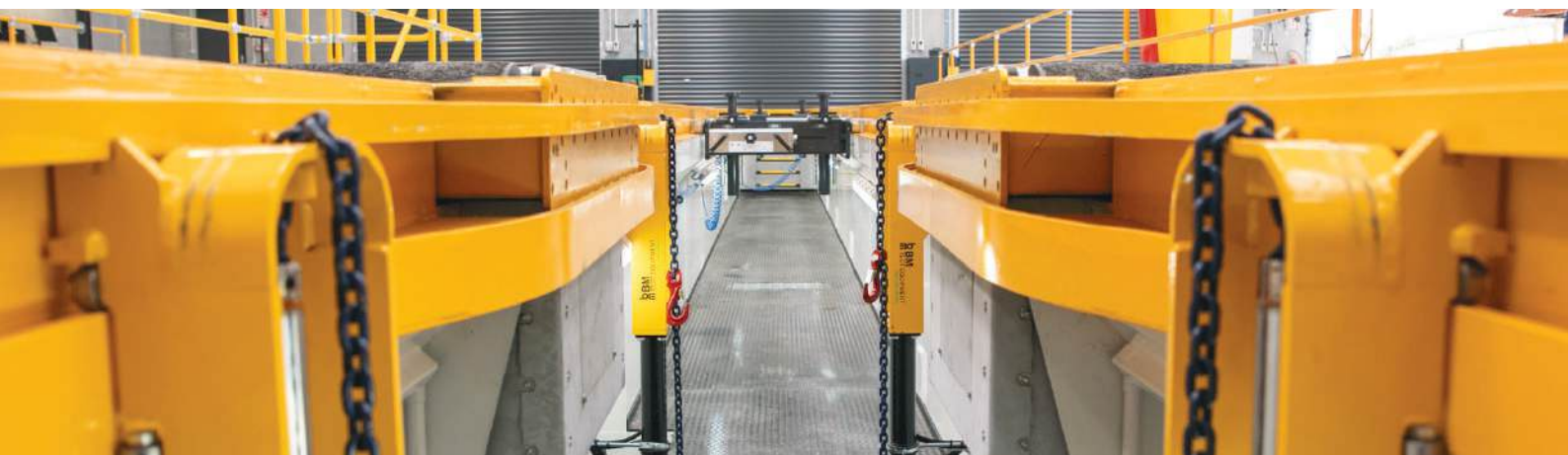
Steel shell with engineered flanges/anchors and jacking rails that transfer vertical and lateral loads into surrounding concrete. Designed for high rollover capacity and jacking actions.

Thin panel walls relying mainly on the steel shell; pit edge and wall panels take concentrated loads. Higher risk of edge fatigue and wall deflection under jacking potentially leading to failure.

Rollover/axle loads

Documented rollover capacities up to heavy vehicle regimes, with options for higher ratings. Jacking rails supplied as standard to keep loads away from pit edges.

Often unspecified or nominal; jacking often improvised at slab edges or added later. Do not have 'certified' load rails.





The pinnacle of design: Levanta prefab pits



Engineered pit design

- Steel and concrete working together to provide stability and strength
- Fully sealed to prevent water ingress (with additional measures taken in waterlogged ground)
- Fully engineered to provide integrated solutions that optimise operational efficiency

Load-bearing pit opening

- Engineered load-bearing rails for jacks, oil drainers, and integrated pit covers
- Optional integrated handrails
- Pit opening optimised to industry requirements



Wider pit dimensions below opening

- Allows recessed lighting systems and other resources required in the pit
- Provides more room for technicians to move and work efficiently
- Provides location for additional equipment without impacting technicians' space



Pit covers fully integrated into pit design

- Multiple options depending on legislative and client requirements
- Manual, electrical or pneumatic deployment options depending on operating environment, all with manual override
- Bridging options for long pits
- Drive-over pit covers available if required





Downward facing lights

- Reduces glare, thus reducing fatigue for technicians
- Located under recess in pit, avoids contact, allowing more room to move
- Avoids collection of dirt, rags, and rubbish, preventing potential fires
- IP68 as standard, with EX rated options depending on operating environment

Side entry tunnel & stairs

- Provides safe entry and egress when vehicles are over the pit
- Particularly important for vehicles longer than the pit (road trains etc)
- Provides additional tool storage if required
- Allows safe movement between multiple pits



Ventilation

- For hazardous operational environments created by vehicle and/or vehicle loads
- In-ground elements incorporated as standard to allow for future legislative requirements

Safety

- Multiple pit cover and handrail options
- Collapsible handrails at entry & exit
- Options for removable and fixed handrails around pit and at openings
- Optional side entry tunnels
- Ventilation systems engineered to meet future legislation
- Ventilation integrated with pit covers and lights to ensure safe working environment prior to access
- Engineered lighting system for optimal performance



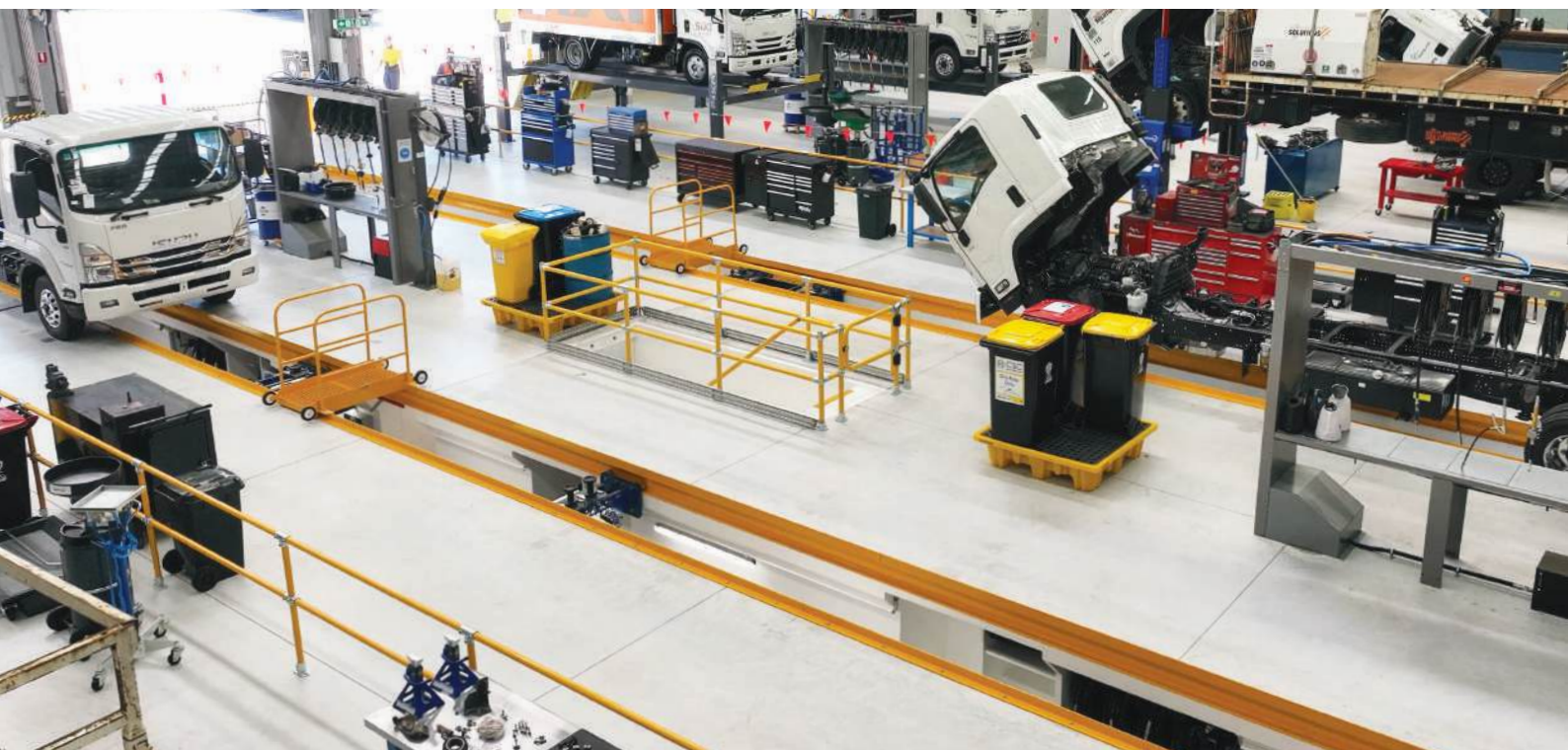
Future proofing pits for legislative changes

Levanta closely follow and assist state legislators in developing safe operating practices for commercial workshop equipment. As a result, Levanta incorporate allowances for potential future legislative changes to allow our clients to maintain state-of-the-art facilities without the need for expensive re-engineering of their equipment.

Thanks to our detailed understanding of the market's changing needs, Levanta's prefabricated pit design will continue to evolve – while our competitors can only copy what we used to do.

Levanta pits incorporate:

- **Equipment for future state legislative brake testing requirements.** Optional base frames are incorporated into the pits' design, allowing for testing equipment to be added later.
- **Inground ventilation equipment** engineered to meet air flow requirements is allowed for as standard, in case Confined Space Legislation is extended to maintenance pits. This allows our service pits to be upgraded to a fully ventilated pit in the future at very low cost, and with no impact on a workshop's daily operations.
- **Allowances for safety equipment** such as remotely and manually operated pit covers, side rails with gates, safety bridges, stair handrail, environmental monitoring and other equipment potentially required by future HSE legislation.





TALK TO LEVANTA FOR EXPERT ADVICE ON ADDING A PIT TO YOUR WORKSHOP

Levanta has over 25+ years of experience in delivering turnkey workshop fitouts. Our prefabricated steel service pit system is the result of decades of continuous improvement and in-field engineering.

We have designed and installed prefabricated maintenance pits for over 22 years. And with our acquisition of Hartex Engineering and their 38 years of experience, our combined team offers Australia's most experienced, vertically-integrated pit design, manufacture, and installation capability.

All our equipment is supplied, installed, and backed 100% by the Levanta team – there is no need to reach out to additional suppliers. With our internal design drafting and project management team, we manage your project from end to end.

AUSTRALIA

FOR AN INITIAL CONVERSATION
ON ADDING A PREFAB PIT TO YOUR WORKSHOP, CONTACT
LEVANTA WORKSHOP SOLUTIONS

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Operating across Australia and New Zealand

NEW ZEALAND