



Sonic System acoustic modular panel enclosure contains hydraulic pump noise

Tailored enclosure for Capral supports compliance, health, and operational performance

INDUSTRY Aluminium Manufacturing
LOCATION Penrith, NSW
CLIENT Capral Limited, one of Australia's largest suppliers of aluminium products, faced a challenge at their Penrith facility. Hydraulic and vacuum pumps that operated in an open area were generating consistent, high-volume noise that impacted nearby workers and risked breaching environmental noise regulations.

THE CHALLENGE

Hydraulic and vacuum systems are known for their constant low-frequency sound output, which easily travels through industrial spaces and beyond property boundaries. At Capral's site, this uncontained noise posed two key issues:

- **Workplace health and safety concerns** related to prolonged staff exposure
- **Compliance pressure** under EPA regulations governing noise emissions

Capral realised they needed more than just a sound barrier; they needed an engineered acoustic solution.

OUR APPROACH

AcousTech designed a custom acoustic enclosure using the **Sonic System acoustic modular panel** solution. After a detailed site inspection and client brief, our engineering team developed CAD concepts to suit the new hydraulic pump infrastructure. The design incorporated airflow, personnel access, roof lift-off sections, and compliance with height clearance codes.

Installation of the enclosure was timed to coincide with a planned three-week plant shutdown for the setup of new machinery, ensuring minimal impact to operations.

ON-SITE DELIVERY

To ensure the project kicked off smoothly, AcousTech's project coordinator was on site to supervise the first two days of installation. One of the factory technicians who fabricated the **Sonic System acoustic modular panels** also attended site to support the site team and provide expert insights during install.

THE DELIVERED SOLUTION

Capral's new acoustic enclosure was constructed to the following specifications:

- **Size:** 7680mm (L) x 4900mm (W) x 3000mm (H)
- **Panel system:** Sonic System acoustic modular panel – V100 used throughout, with V50 panels on the end wall near pipe discharge to meet space restrictions
- **Structure:** Custom-designed and fabricated steel frame, supplied and installed by AcousTech

KEY FEATURES

- Lift-off roof panels (three sections) for overhead maintenance
- Pair of acoustic doors (2400mm H x 2100mm W) for plant access
- Single personnel access door (2100mm H x 900mm W)
- Certified roof access ladder and perimeter handrail system

This project is a realisation of our philosophy: delivering **the Science of Silence** with engineering precision.



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INSTALLED PHOTOS



THE BENEFITS FOR CAPRAL

- Supports EPA compliance
- Improves staff wellbeing
- Minimises equipment fatigue
- Allows seamless maintenance
- Reduces operational interruptions
- Enhances plant appearance

PRODUCTS USED

- Sonic System Acoustic Modular Panel – V100
- Sonic System Acoustic Modular Panel – V50
- Sonic Access acoustic doors
- Custom-engineered structural steel and certified access system

HAVE A NOISE COMPLIANCE CHALLENGE?

At AcouSTech, we don't just build enclosures, we design solutions that meet regulatory standards and improve how your site performs. **To find out more, call AcouSTech on 1300 508 232.**

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