



ISOLATION GATES

SAFELY ISOLATE DOWNSTREAM EQUIPMENT,
SUCH AS SCREENS AND FEEDERS, IN MINUTES
DURING STOPPAGES AND MAINTENANCE



The logo for TRANSMIN, featuring a stylized green 'T' with a swoosh and the word 'TRANSMIN' in a bold, italicized green font.

AUSTRALIAN ENGINEERING WORLDWIDE

Transmin is a world-class provider of innovative engineered equipment, supplies and services to the resources and bulk materials handling industries.

Established in Perth, Western Australia in 1987, Transmin sets the standard for mechanical equipment design and application, led by our specialist Engineering division, and backed by MONTRÉAL our dedicated Aftermarket division. Transmin's Control and Automation division delivers award-winning software solutions specialising in remote equipment operation and systems integrations.

The Transmin equipment range covers most bulk materials-handling applications, including; feeders and conveyors, bulk loading and unloading hoppers, rock-breakers, hydraulic boom systems, bin isolation gates, reagent preparation and processing facilities, lime preparation facilities, ball charging systems and silos.



- Transmin Head Office
- Transmin Offices/Agencies
- Countries in which Transmin equipment is deployed



OPTIMISING THE BIN ISOLATION PROCESS



Primarily developed for the iron ore industry, Transmin designs and manufactures some of the largest isolation gates, featuring opening apertures up to 12.0 meters long by 3.0 meters wide and handling materials up to 350 mm in lump size. These gates can isolate bins in minutes, not hours like spill bars.

Most designs utilise hydraulic operation with Transmin's in-house designed cylinders and hydraulic power units. For lighter loads, electric and pneumatic actuation is also available. Additionally, Transmin can design special gates, including single or double clam shell type gates, diverter gates, and travelling gates.

Single or Double Sliding Plates

Dependent upon the size of the aperture to be isolated, Transmin designs will feature either a single gate or double gate, closing from each end and overlapping in the centre when double gates are used.

Gates over approximately 3m long will utilise double plates to optimise the cylinder size to isolate even the largest apertures.

Wear Liners

Wear liners are fitted for maximum durability and to protect the high wear edges and changes in direction of material flow.

FEATURES

- ▶ **Complete Isolation Safety**
Isolation gates are primarily fitted to safely isolate downstream equipment such as Low Profile Feeders, belt feeders, screens and apron feeders, so they can be removed or worked on during maintenance campaigns.
- ▶ **Hydraulic Power Units**
Unique hydraulic power packs with simple local control panels can be built to Transmin or client specifications.
- ▶ **Diverse Custom Options**
Transmin can customise our range of gates to suit a myriad of applications including metering, diverter or high capacity flow conditions of aggressive materials.



FEATURES



Modular design



Bolted rails



Bolted wear plates



Side mounted cylinders



Plates overlap to minimise material leakage



Pulling points to allow manual opening



110% bund/trip tray



Twin drive HPU



Bottom covers mesh



Top covers solid mesh



Custom design, built and tested

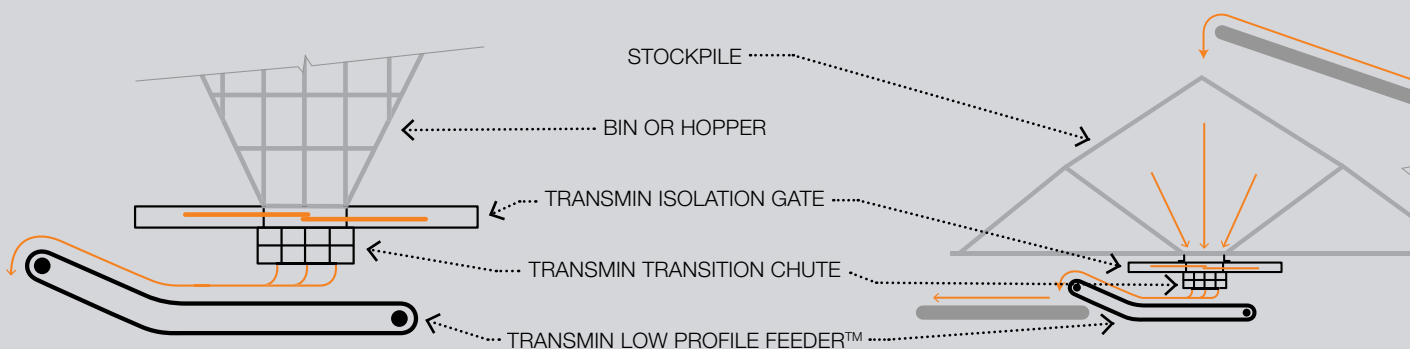


Proximity sensing for gate position



APPLICATIONS

Primary applications include stockpile outlets, dump hoppers and screen feeding bins.



THE BENEFITS

FEATURES	TRANSMIN ISOLATION GATES	SPILE BARS
Automation	Can be fully automated	Often require some level of manual handling
Control	Precise control over flow regulation and can open and close rapidly	Are typically slower to insert and or remove
Safety & Ergonomics	Remote operation, no manual handling, reduces need to access in and around machine	Are typically physically demanding & require access in confined spaces and working at heights
Material Isolation	A much better seal, which allows maintenance work to be carried out in a cleaner environment with less risk to personnel	Do not have a perfect seal and material leaks between them, harming human work
Maintenance	More robust and require minimal maintenance, with durable components for long term use	May wear out more due to manual handling
Productivity	Much higher productivity, in general an opening can be opened or closed in less than 10 minutes	Require a lot of time to close and also to open the silo
Payback	Hydraulic gate pays for itself in a very short time due to less downtime in production	
Ease of use	Used frequently with minimal maintenance personnel required	Specialised maintenance personnel required

FULL RANGE OF GATES



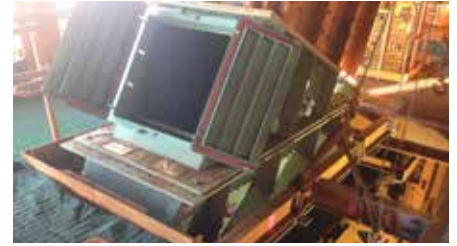
Isolation Gates

- ▶ Custom designed to suit size, application and material handled
- ▶ Cast iron sliding pads/rollers supplied standard
- ▶ Heavy duty cylinders designed in-house
- ▶ Wear plate liners incorporated for long term wear with easy replacement for maintenance
- ▶ Sensors for open and closed positions to ensure safer maintenance practices



Diverter Gates

- ▶ Used in material handling systems to divert the flow of bulk materials between different conveyors, bins, or chutes
- ▶ Typically made of robust materials such as steel or stainless steel to withstand heavy-duty applications
- ▶ Available in single-flap, double-flap, or rotary configurations, depending on application requirements
- ▶ Designed to suit specific flow rates, material characteristics, and environmental conditions



Maintenance Gates

- ▶ Designed as a platform to allow maintenance personnel quick and safe access for maintenance such as high wearing areas in chutes
- ▶ Available with manual, pneumatic, or hydraulic operation options for flexibility
- ▶ Engineered for straightforward installation and reliable operation in demanding conditions
- ▶ Tailored to specific dimensions, materials, and operational needs of the system



Local Operating Panels

- ▶ Can be incorporated into the plant control system providing a full remote operation
- ▶ Located adjacent to the gate to provide a safe operation for service, maintenance and plant operators operating the gate
- ▶ The design also allows for the easy service and replacement of the solenoid control valve
- ▶ The LOP control panel incorporates a jog function as well as normal control to assist service and maintenance operators wishing to make small movements
- ▶ Pressure gauges to indicate the pressure in each of the lines to and from the gate.

HPUs

- ▶ Designed for easy access for maintenance purposes
- ▶ Lockable isolation valves for safe maintenance and operation
- ▶ Reservoir sized to allow all cylinders to be opened or closed
- ▶ Magnetic pickup point on the oil filters and low level oil safety switch
- ▶ Spill tray and 110% bund supplied as standard



Case Study:

HYDRAULIC BIN ISOLATION GATES FOR MINE PROCESS EXPANSION PROJECT



Location:
Indonesia

Operation Type:
Copper-gold

Year:
2024

This project encompassed the engineering, design, procurement, fabrication, and testing of eight Hydraulic Isolation Gates, eight Local Operator Panels, and three Hydraulic Power Units for the second largest copper-gold mine in Indonesia. Transmin supplied three gate variants: four single-plate feed bin gates, two single-plate distribution bin gates, and two dual-plate transfer bin gates. Upon completion, Transmin prepared and packed all components for sea transport from Perth, Australia, to Indonesia.



TRANSMIN SERVICING

TRANSMIN SPECIALISES IN A RANGE OF SERVICING AND ENGINEERING SOLUTIONS.

Transmin's dedicated and highly trained service division supports mining and materials handling operations right across Australia. We provide comprehensive on-site and off-site servicing of both Transmin and third party OEM equipment.

Transmin provides a range of strategic site maintenance and optimisation services, including;

- ▶ Shutdown and maintenance planning
- ▶ HAZOP assessments
- ▶ Risk based inspections
- ▶ Systems de-bottlenecking
- ▶ General engineering support services

For major equipment overhauls and refurbishments, Transmin can accommodate all manner of site equipment at our facilities in Malaga, Perth. Transmin has over 4000sqm of fully-equipped workshop facilities suitable for heavy assembly, fabrication and dedicated servicing of mechanical and hydraulic equipment.





AUSTRALIA

Local Call: 1300 127 091

International Call: +61 (0) 8 9270 8555

A: 33-37 Denninup Way Malaga, Perth, Western Australia, 6090

E: info@transmin.com.au



www.transmin.com.au