



JLV INDUSTRIES PTY LTD

Conveying Quality

CABLE BELT
CONVEYORS



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Who We Are

JLV INDUSTRIES is the world leader in the maintenance and servicing of cable belt conveyor systems, providing the highest quality components and expert maintenance and modification services to keep your system running at peak performance. Our motto is “Conveying Quality” for one simple reason: it informs everything we do.

With over 35 years of proud history in the conveyor industry and in-house facilities to produce key components, we have the experience and capabilities needed to maintain and improve your cable belt conveyor system.

We aim to bring you an unparalleled level of service by having trained experts available to service your equipment and respond to any emergency, as well as our unique dedication to producing the best conveyor components available. Our goal is to be your trusted advisor and strategic partner, helping you to maintain your system for years to come, mitigating risk factors that could halt production and negatively impact your bottom line.

WHAT WE DO

You rely on your conveyor belt system to handle the throughput needs of your operation day-in and day-out. While you focus on the core of your business, you need someone working tirelessly in the background to ensure this fundamental system continues to perform at its best for years to come.

That's where we come in. We have the expertise needed to modify systems, troubleshoot problems, and maintain your system for reliability, efficiency, and throughput. There are plenty of other aspects of your business to focus on, and the last thing you need is to have production stopped or equipment damaged because of a poorly maintained conveyor system.



No two operations are exactly the same, and we pride ourselves on helping you develop innovative, sustainable solutions tailored to your unique needs. Our years of experience maintaining conveyor systems enable us to help you ensure your system runs efficiently and sustainably.

In addition to having regular inspections and maintenance, it is also important to use high-quality components that won't fail you when you need them most. For this reason, we manufacture our own

Combi Belting, as well as line pulleys and koepe liners in order to maintain a level of quality control our competitors simply cannot.

We also have partnerships with manufacturers that share our dedication to quality to provide gearboxes, drive motors, driving ropes, terminal pulleys, sheaves, and miscellaneous parts. These trusted partners have been carefully vetted to ensure they meet the same exacting standards we demand of our own production line.

History

JLV was founded in 1979 to construct the Worlesy Alumina 51 km overland conveyor system in Western Australia. After several years of erecting and commissioning this and other large conveyor systems, we were frustrated by the difficulty of finding components that met our standards for quality. Therefore, in 1988, we shifted our primary focus to the design and manufacture of the highest quality conveyor system components.

Now we've moved away from building new conveyor systems in order to give our undivided focus to providing the highest quality components and industry-leading maintenance services for cable belt conveyor systems. Our pre-troughed, steel reinforced Combi Belt, line pulley assemblies and koepe liners are produced in our facilities in Harvey, Western Australia, 150km south of Perth. We maintain representatives in the Philippines, South Africa, India, and South America and have been awarded accreditation by SAI Global as a Quality Endorsed Company (ISO 9001) for the design, development and manufacture of conveyor system components.

CAPABILITIES

Manufacturing

- Conveyor belting
- Line pulley assemblies
- Terminal pulley sheave assemblies
- R&D on component parts provided via partner companies

Maintenance & Servicing

- Long-term maintenance contracts
- Goods and services agreements
- Sourcing miscellaneous parts for cable belt conveyor systems
- Onsite inspections, consulting and troubleshooting services
- Steel wire rope inspection, maintenance and change out



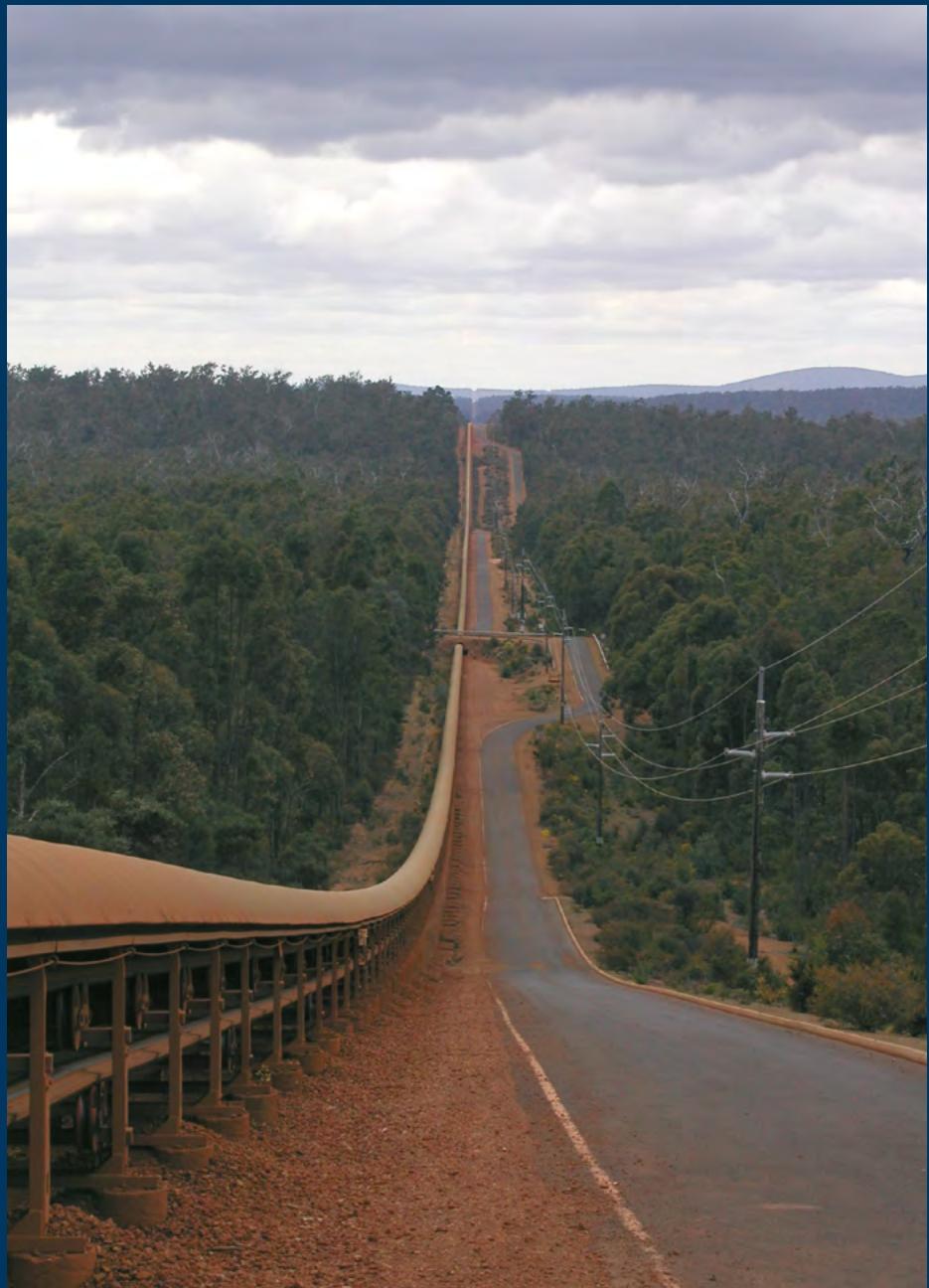
New Cable Installations at South32 Worsley Alumina

Maintaining the steel cable at the South32 Worsley Alumina mine in Western Australia is no small job. The conveyor systems at this site are the largest single flight systems in the world, with one measuring 31 kilometres and the other 20 kilometres.

The heavy 57 mm steel cabling, the largest of any system worldwide, runs down each side of the systems and loops back again, totalling 204 kilometres of cabling. The cable arrives at the site in 9 kilometre spools, and needs to be spliced by marrying the individual strands of each length together.

Over the past 20 years, JLV has been maintaining the cabling at South32 and other sites, and has developed the skills and experience necessary to tackle jobs of any size. Our team of splicers and support staff are able to complete this important work in record time by working back-to-back 12 hour shifts. By working around the clock, our team was able to install 60 kilometres of 57 mm steel cabling in less than ten days.

Right: 51 km Overland Bauxite Conveyor to Worsley Alumina Refinery, Western Australia



Manufacturing Oil Resistant Conveyor Belting



A project we've recently been awarded involves manufacturing 38 kilometres of oil resistant conveyor belting. All of this belting will be manufactured in our factory in Harvey, Western Australia over the course of two years, after which it will provide a 15-year service life.

When producing belting at this volume, we keep a team of 25 factory employees working full-time. As the belting is produced, it is wrapped onto reels in 250 m lengths. These 152 reels will then be loaded onto 40' flat rack shipping containers, five at a time. In total, thirty-one racks each loaded with 27 tonnes of belting will be shipped out of Fremantle port to the site overseas.



Conveyor Belting

Three types of belt were developed in sequential order over the span of several decades, with each new design addressing operational issues with the previous standard. The latest iteration, combi belting, makes significant improvements over the mesh and strapped belt designs by combining the strengths of both.

By combining steel bars and reinforcing mesh, it is possible to create belting with greater durability than ever before, ensuring longer operational life before it needs replacing. For this reason, JLV exclusively manufactures combi belting.

Our belting is manufactured completely in-house in our production facilities based out of Harvey, Western Australia. By not outsourcing the production of this key component, we are able to maintain exacting standards of quality control that our competitors simply cannot match, ensuring our belts provide industry-leading quality, longevity, and throughput capability.

Another important consideration when manufacturing conveyor belting is the correct degree of troughing. Our belting is pre-troughed to ensure it has sufficient flexibility to negotiate the head, tail and tension drums while still maintaining its stiffness and

integrity above the cables, even when carrying a full load. When loaded, this helps to avoid spillage of materials while maintaining adequate clearance between belt dislodgement detectors and the underside of the belt.

Because of the large volume of air to be expelled during the vulcanization process, it's not uncommon for blisters to develop beneath the surface of the belting, which distort reinforcing mesh and create soft areas. These "soft spots" can cause uneven wear and significantly reduce the useful life of your belt. This is a problem inherent in the design of Mesh belt. As part of our dedication to quality, we carefully inspect and test our belting at each stage of the manufacturing process and rectify these defects prior to shipping.

Since 1991, JLV has been developing combi belting for the most demanding cable belt conveyor systems in the

There are three basic types of belt construction available for cable belt conveyor systems:

- **STRAPPED BELTS** – Steel load bars residing in pockets within the rubber
- **MESH BELTS** – Two layers of reinforcing mesh, no steel bars
- **COMBI BELTS** – Steel load bars bonded inside the belt with a single layer of mesh

world. We firmly believe in customising the degree of reinforcement and troughing to meet the specific load and carrying requirements of your operation, and can also produce oil, chemical, and fire resistant rubber belting if needed. With JLV, you never get an off-the-shelf solution, but instead get the quality and attention your system deserves.



Line Pulleys

Line pulleys serve a simple but vital function: to support the steel cable that drives your conveyor system. These crucial components are under constant load, and need to perform reliably and wear evenly to minimise downtime. Our line pulleys are made up of four core components: two steel rims, a monotyre, a hub and a cartridge.

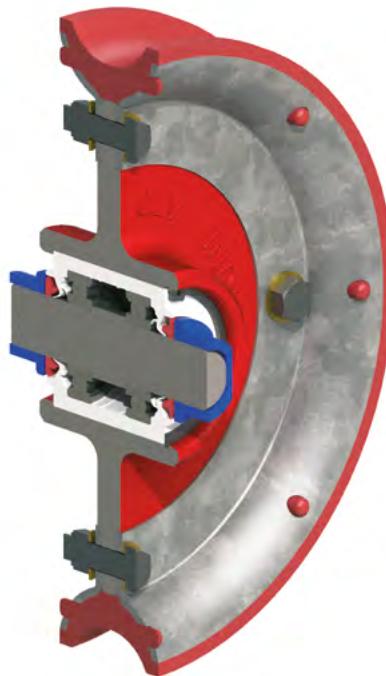
This arrangement is unique in several ways to standard line pulleys, and has been designed to maximise durability and make maintenance and replacement much easier.

MONOTYRES

As part of our dedication to providing the highest quality cable belt conveyor components available, we encourage the use of monotyres over bonded split-rim assemblies. Unlike traditional split-rims, which are steel rims with polyurethane bonded to the steel, the monotyre is a single piece polyurethane tyre that is not bonded to the rim steels. This eliminates the possibility of bond deterioration failure while providing enhanced durability, improved wear characteristics, lower total cost of ownership, and easier maintenance and replacement.

We source all the metal components from local Australian manufacturers, and form the polyurethane parts, mixing and molding the pieces in our production facility. Our steel rim is very similar to that used in split-rims, except that our monotyre rim has 8 holes drilled to accommodate the locating lugs and it is galvanized to lengthen its life in the field.

Transitioning to our modern components is simple. Our monotyres are designed to fit into the same hub as split-rim assemblies, protecting your initial investment. Furthermore, used polyrim steels can be converted into monotyre



rim steels, and we can provide a volume discount for the quantity required to make the initial switch. Significant savings will be realised over the life of these components, as monotyres do not require parts to be sent offsite for refurbishment, and can be easily disassembled and reassembled, reducing your maintenance costs.

HUB CARTRIDGE

The second unique component of the JLV line pulley assembly is the hub cartridge, a sealed unit containing the bearings and shaft. This provides several unique advantages. First, it can be placed onsite without fear of particulates contaminating the



bearings. Also, it is easily replaced as a cartridge can simply be pressed into the existing hub.

Combined with the easy disassembly of monotyres, this system enables your on-site maintenance professionals to refurbish and replace line pulleys without needing to send components off-site. Failed pulleys can be taken out of the system to be inspected and repaired onsite, then quickly installed back into the system. This improves the logistics of maintenance, reducing transport costs. Furthermore, the ability to reuse parts if they are not worn offers significant savings over the lifetime of the component compared with disposable parts.

Other Products

JLV Industries is your one-stop shop for everything needed to maintain your cable belt system. We have formed partnerships with other quality manufacturers to provide you with the highest quality components.

■ **KOEPE LINERS** – Polyurethane

wear liners for the drive
wheel and lined sheaves

■ **ROCKERS** – Self-aligning
arms to hold line pulleys

■ **NOISE & VIBRATION ISOLATORS**

– Polyurethane pads and isolators
which reduce the wear and noise
created by metal components

■ **TERMINAL PULLEYS** – 457 mm
to 4,000 mm diameter steel
sheaves with hardened grooves

■ **GEARBOX PARTS** – All shafts,
gears and assemblies
for cable belt gearboxes



Rope Maintenance

Proper maintenance of your steel cabling will keep your conveyor system running at peak performance for years to come, lower your total maintenance spend, and ensure you can rely on your system to handle high throughput demands. Do not leave this to chance – work with the best, and gain the peace of mind that comes with having a team of experts maintaining your cables. That's the JLV difference.

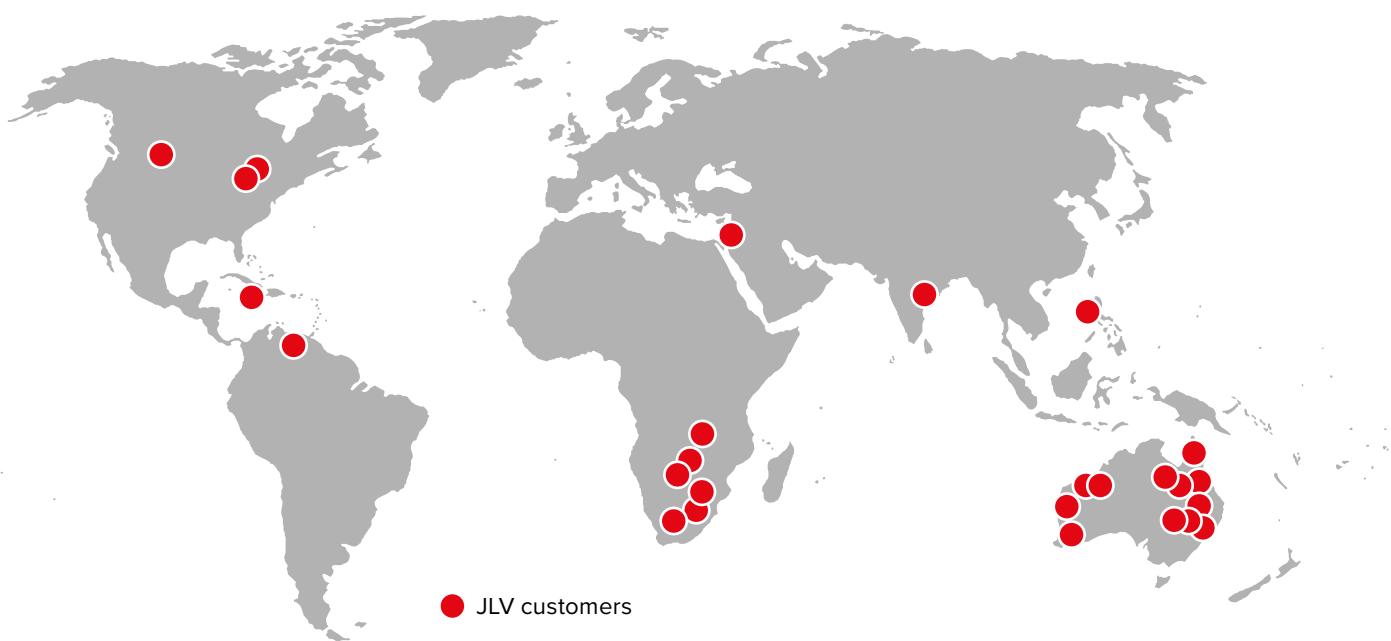
Since 1988, JLV has been leading the conveying industry in cable installation, inspection and maintenance. We are, in fact, the only company that exclusively works to maintain cable belt conveyor system ropes.

Steel cabling forms the core of cable belt conveyor systems, connecting the electric motors and belting. These high-value cables are made up of endless loops of steel wire, which is spliced together at regular intervals, and are under constant tension to carry the load along the system.

Splicing the individual strands together is highly specialised work that is difficult to learn anywhere except on the job, and can be highly dangerous if the proper safety precautions are not taken. For this reason, we employ a crew of rope splicers who travel the globe to perform new rope installations and maintenance operations.

If rope maintenance is not completed at regular intervals, not only will the service life of the cabling be greatly shortened and require premature replacement, but there will be increased wear on the surge or koepe wheels, liners, sheaves and line pulleys, and risk potential failure if too many wire fractures occur without being repaired. This could result in equipment damage or injury to personnel. The costs of an emergency repair are far greater than that of preventative maintenance.





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VALE



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