COVERED
BY AMES
DIRECT

PRODUCT & SERVICES OVERVIEW

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HIGH PERFORMANCE RUBBER & POLYURETHANE ROLLERS WHEELS & COMPONENTS

Our Vision

The AMES Direct vision is to be considered as the Leader in Rubber & Polyurethane Rollers, Wheels & Components in the Australiasian Region.

Our Mission

The AMES Direct mission is to have our High Performance Rubber & Polyurethane Rollers, Wheels & Component in every truly efficient production, processing and warehousing facility in Australia. Every day we strive exceed our customers' expectations in quality, service and innovation through continuous improvement and customer interaction.

SERVICE

Rubber & Polyurethane
Roller Coverings

AMES Direct is a Specialist in the Inspection, Engineering, Manufacturer and Condition Monitoring of Rubber & Polyurethane Rollers in all industries and environments. Universally, Rubber Rollers are used in material application, movement facilitation and material support and transportation.

Our speciality is in correct Roller Covering compound selection, we work closely our valued clients to develop a High-Performance Solution for existing or new rollers. With our expertise and experience you can be confident that you will have the most appropriate covering on your rollers. We formulate Rubber & Polyurethane Roller Coverings from 20A Shore through to 70D Shore. We have options including FRAS, FDA Approved, UV resistance additive, and Teflon and Silicone Additive.

The bond between the core of the Rubber Roller and Roller Covering is equally as critical as correct compound selection. Our Rubber Rollers are processed through a quality-controlled surface preparation process involving degreasing, linishing, sandblasting, washing and priming. All our Rubber Coverings are vulcanised to the Roller Core and our Polyurethane Coverings are oven cured to the Roller Core. Only this process will ensure a super-strong bond of the Roller Covering to the Roller Core.

AMES Direct has the capacity to design & manufacture New Rubber Rollers as well as refurbishment services on Rubber Rollers from 10mm Diameter up to 1700mm Diameter and up to 6000mm long+. We offer a range of surface finishes including plain face, polished, rough, ground, crowned and tapered. We also offer a range of grooving options including Chevron, Diamond, Spiral, Herringbone, Fluted and Plunge Grooved.

AMES Direct has supplied rollers to all industries. Some of the rollers we have manufactured are;

- Conveyor Rollers
- Head & Tail Rollers
- Transport Rollers
- Sander Rollers
- Coater Rollers
- Print Rollers
- Labelling Rollers
- Laminating Rollers
- Drive Rollers
- Idler Rollers
- In-Feed Rollers
- Out-Feed Rollers
- Nip Rollers
- Pipe Rollers
- Anti-crush Rollers
- Reinforcing Line Rollers
- Converting Rollers
- Drum Rollers
- Restrainer Rollers
- Flesher Rollers
- Glue Spreader Rollers
- Applicator Rollers
- Timber Moulder Rollers
- Anvil Rollers
- Creaser Rollers
- Guide Rollers
- Pressure Rollers
- And many more…

SERVICE

Some Examples of Our Work


Idler Rollers


Conveyor Pulley Drums


Drive Rollers


Pressure Rollers

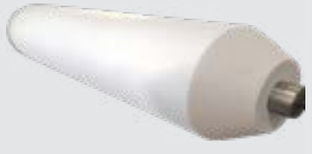

Belt Pulley Roller


Anvil Roller


Printing Roller


Labelling Roller


Belt Pulley Roller


Intestine Roller


Tapered Roller


Pull Rollers


Nip Roller


Thicknesser Roller


Nip Roller

SERVICE

High Performance **Wheel Coverings**

In todays fast paced market, manufacturers are for increased productivity from their equipment by increasing speeds and loads. The result of this is increased wear & tear on all the maintenance points on the equipment including Rubber or Polyurethane Coated wheels. As a machine operator or fitter you may be aware of premature failure (melt downs, blow outs, delamination's, excessive wear etc).

AMES Direct is a specialist in Wheel Coverings, with a range of High Performance compounds suited to these extreme environments. We work closely with our clients to improve the performance of these wheels to reduce maintenance costs, breakdowns/shutdowns, improve production speeds and capacity. Using data provided by our clients AMES Direct can perform laboratory testings to evaluate a compounds suitability to operate safely in the environment.

In some applications we have seen wheels improve from 10 hours lifespan to 30+ weeks with production increases of 35%+ not uncommon. Contact us today to speak to one of our specialists about your situation.

AMES Direct has supplied wheels to all industries. Some of the rollers we have supplied are;

- Trommel Wheels
- Automated Picking Wheels
- Guide Wheels
- Production Line Wheels
- Drive Wheels
- Idler Wheels
- Transmission Wheels
- Crane Wheels
- Forklift Wheels
- Scissor Lift Wheels
- Shuttle Wheels
- Cable Wheels
- High speed Wheels
- High load Wheels
- Encoder Wheels
- Trolley Wheels
- And many more

SERVICE

Some Examples of Our Work


Crane Guide Wheel


Drive Wheels


Powerfeed Wheels


Pressure Wheels


Cable Wheels


Forklift Wheels


Bearing Cover Wheels


Trommel Wheels

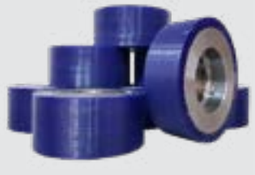

High Tempreture Wheels


Drive Wheels


Laundry Wheels


Trommel Wheels


Drive Wheels


Drive Wheels

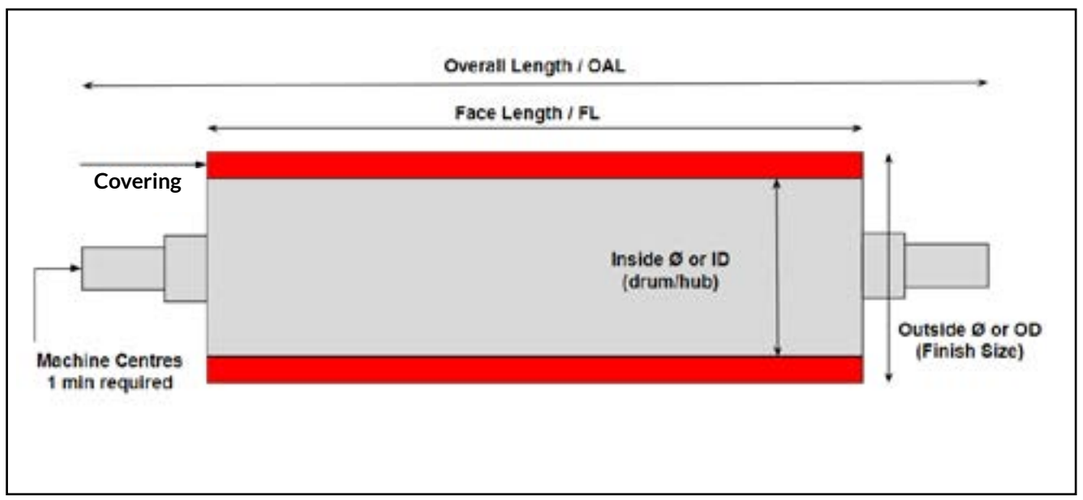

Drive Wheels

Roller Covering
Request for Quote Form

To have your current and/or future roller requirements priced please fill out the fields below where applicable; (measurements to be in millimeters). The solution to your needs is our priority, so please ensure all fields are complete where applicable. If you need assistance with any of the answers, please contact one of our specialists.

Please scan and email to sales@amesdirect.com.au.

1. Roller O.D …….. (Rubber Outside Diameter)
2. Roller I.D …….. (Rubber Internal Diameter
3. Roller length……..(Face Length of Rubber Lagging)
4. Material (if known)……
5. Hardness of roller (if known)……..
6.Application/uage……
……
…….. (please note any environmental wear factors such as Chemicals, Wet Area, FDA requirements, UV exposure, load or Extreme Temperatures)
7. Preferred colour of roller…….. (Black is our default choice)
8. Bearing Code……..
10. Drawing of roller. Send by email.
11. Photograph of existing roller. Send by email.
12. Grooving Required? Please provide specifications.....

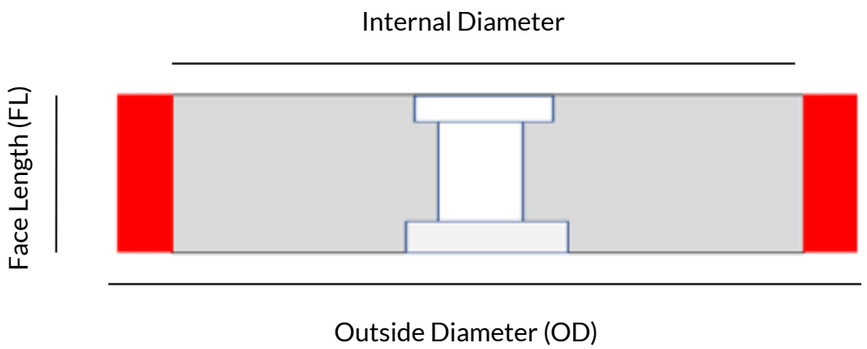


All bearings to be removed before recovering

Wheel Covering
Request for Quote Form

To have your current and/or future wheel requirements priced please fill out the fields below where applicable; (measurements to be in millimetres). The solution to your needs is our priority, so please ensure all fields are complete where applicable. If you need assistance with any of the answers, please contact one of our specialists.
Please scan and email to sales@amesdirect.com.au.

1. Wheel O.D …….. (Rubber Outside Diameter)
2. Wheel I.D …….. (Rubber Internal Diameter
3.Wheel Width……..(Face Length of Rubber Lagging)
4. Side Tapers……..(if required)
5. Radius……..(if required)
6. Material (if known)……
7. Hardness of roller (if known)……..
8.Application/usage ……
. (please note any environmental
wear factors such as Chemicals, Wet Area, FDA requirements, UV exposure,
load or Extreme Temperatures)
9. Direct Load on wheel……KGS
10. Wheel Speed……
11. Preferred colour of Wheel…….. (Black is our default choice)
12. Bearing Code……..
13. Drawing of Wheel. Send by email.
14. Photograph of existing roller. Send by email.



All bearings to be removed before recovering

CHOOSE YOUR COVERING

Selecting the right Rubber or Polyurethane Covering for your rollers and wheels is crucial for efficient, productive, and cost-effective production. At AMES Direct we treat material selection with upmost importance to ensure our clients have High Performance Rollers and Wheels.

The process of material selection is verified by knowing the purpose & environment your Roller or Wheel is in. Factors like; speed, load, temperature, chemicals, UV exposure, wash up liquid used, product being processed are all taken into consideration.

Although material selection made easy through our guide (on the next page) we strongly encourage you to speak with one of our specialists to ensure you are getting the most suitable covering. This may seem tedious, however the result will reap! You may be surprised by how much a material change or hardness change can improve your production efficiency.

Ask one of our specialists today for our High Performance advice!

Material
Selection Guide

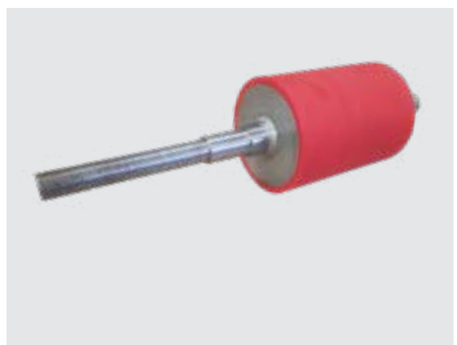
At AMES Direct we're proud to have the largest range of Rubber & Polyurethane's available to ensure our clients have access to the most appropriate compound for their specific application. We work with the following compounds

Polyether Polyurethane
Polyester Polyurethane
Natural Rubber
Neoprene Rubber
Nitrile Rubber
EPDM Rubber
Silicone Rubber
Hypalon Rubber
Ebonite Rubber

Within each compound type is a range of formulations, hardness's and colours available

Before & After

Recovering your Rubber & Polyurethane Rollers & Wheels is an effective way to reduce maintenance costs, improve production efficiency & increase product quality. We specialise in recovering your existing Rollers & Wheels with High Performance Rubber & Polyurethane Coverings. All recovered Rollers & Wheels go through a quality controlled process involving stripping of existing covering, linishing, sandblasting, washing, priming, casting or building, curing and finish machining - ground or machine tool. (process depending on new covering compound).



COMPOUND	CHARACTERISTICS	RECOMMENDED FOR	NOT RECOMMENDED FOR
Natural Rubber Available in the following Shore Hardness range 40A – 95A+ Shore	Natural Rubber is taken from the latex sap of Trees. It has high tensile, cut, chip and tear strength as well as outstanding fatigue resistance. Having a low hysteresis allows for low heat generation.	Conveyor Pulleys Industrial rolls High Load Wheels Non conductive Rollers	Food Production Lines Non-marking applications UV exposure Heat exposure
Neoprene Rubber Available in the following Shore Hardness range 20A – 90A Shore	Neoprene is considered an excellent all-rounder rubber for general purpose applications. It has good dynamic properties and good chemical resistance. Neoprene is a workhorse in the industry. Other materials may perform better in a specific application, however as an all rounder it's difficult to beat.	Production Line Rollers Nip rollers Feed Rollers Print Rollers High Temp Applications Many more	Cold Environments High Release Rollers Contact with Aromatic Hydrocarbons.
Nitrile Rubber Available in the following Shore Hardness range 20A – 90A Shore	Nitrile is the most commonly used elastomer in the industry. It has excellent resistance to oils, chemicals and water. Commonly used on Printing Rollers. Its Abrasion resistance and Tensile strength can be improved with Carboxylated Nitrile Rubber.	Print Press Rollers Nip Rollers Laminating Rollers Food Production Rollers Production Rollers	Abrasive Applications UV Environments Ozone Environments Conductive Applications
EDPM Rubber Available in the following Shore Hardness range 30A – 95A+ Shore	EPDM has excellent ozone resistance and chemical resistance, especially with polar solvents such as keytones. EPDM is heat resistant to 177°c	UV Printing Rollers Applicator Rollers Paint Rollers External Applications High Temperature Applications	Food Environments Abrasive, sharp, and high load applications. Heavy production line Rollers Wheels
Silicone Rubber Available in the following Shore Hardness range 30A – 90A Shore	Silicone rubber is known for two main attributes, high temperature (200°c) capability and improved release characteristics. Silicone is a more expensive covering but along with heat resistance and release it has good chemical resistance and excellent ozone resistance. Silicone has generally weak physical characteristics.	Laminating Rollers Personal Hygiene Production Rollers Tissue & Toilet Paper Roller Production Rollers High Release Rollers Wet environments	Abrasive, sharp, high load applications. Wheels
Polyurethane Available in the following Shore Hardness range 20A – 70D Shore	Polyurethane is available in two basic chemical types, polyester and polyether. Polyester urethane is a tough elastomer with good chemical and solvent resistance while Polyethers work better in applications that come in contact with water. Urethane is typically used in applications where toughness, wear resistance and cut resistance are desired.	Wheels Conveyor Rollers Sander Rollers Production Rollers Polyurethane can be used in almost every application as we can custom formulate to suit your exact application.	Some high chemical applications.
Hypalon Available in the following Shore Hardness range 30A – 90A Shore	Hypalon has good chemical and temperature resistance and excellent ozone resistance. Although its dynamic properties are ok, they are better options for maximum wear protection	Print Rollers Wet environments High Release applications	Conveyor Rollers Wheels Abrasive Applications Production Rollers

HIGH PERFORMANCE RUBBER & POLYURETHANE ROLLERS, WHEELS & COMPONENTS

Polymeyers
Properties Table

RELATIVE RATING **E - Excellent** **G - Good** **A - Average** **F - Fair** **P - Poor**	NEOPRENE	NITRILE	CARBOXYLATED NI-	POLYURETHANE	SILICONE STAN-	EDPM	HYPALON	NATURAL RUBBER
Hardness Range	20-95	20-100	45-95	40-95	30-90	25-95	30-90	30-95
Tensile Strength	G	A	E	E	P	F	A	E
Modolus	G	A	E	E	A	A	A	E
Elongation at Break	E	A	A	G	F	A	A	E
Tear Strength	G	A	E	E	P	F	A	G
Cut Resistance	G	A	E	E	P	F	A	G
Resistance to Compression Set	A	A	F	A	E	A	F	A
Resistance to Permanent Set	G	A	A	G	G	A	F	G
Resilience	G	A	F	G	E	A	A	E
Resilience to Heat Build-Up	E	F	P	E	E	F	F	A
Resistance to Abrasion	A	A	E	E	P	A	A	A
Ozone Resistance	A	P	P	G	E	E	E	F
Hydrolytic Stability	E	E	E	F	E	E	E	E
Dieletric Strength	A	P	P	G	E	P	E	E
Release Characteristics	F	A	P	F	E	A	G	F
Maximum Service Tempreture (Celsius)	120	120	135	100	260	175	150	85
Acids (Mineral) Nitric, Sulfuric, Hydrochloric, Phosphoric (Organic) Acetic, Boric	G	P	P	P	G	E	E	A
Caustics Sodium Hydroxide, Calcium Hydroxide	G	G	A	P	G	E	E	G
Aliphatic Hydrocarbons Kerosene, Gasoline, Hexane, Naptha, Mineral Spirits, Most Offset/Letterpress Printing Inks, Lubricants and Greases	A	E	E	F	P	F	A	P
Aromatic Hydrocarbons Totuol or Toluene, Xylol or Xylene	P	A	A	P	A	P	P	P
Chlorinated Hydrocarbons Methylene Chloride, 1, 1, 1 - Trichloroethylene, Perchloroethylene	F	F	F	P	P	F	F	P
Esters Ethyl Acetate, Diotyl Phthalate, Tricresyl, Phosphate	A	F	F	P	P	F	F	P
Alcohol Methanol, Ethanol, Isopropyl Alcohol	G	F	F	P	A	E	A	A
Water	A	G	A	F	G	E	G	E
Glycols Ethylene Glycol, Glycerine	G	E	A	F	G	E	G	A
Ketones Methyl Ethyl Ketone (MEK) Methly Isobutyl Ketone	A	P	P	P	A	E	A	G

Please Note: the information provided below is of a general nature and doesn't take into account the additives or alternative formulations available. For specific information please contact one of our specialists.

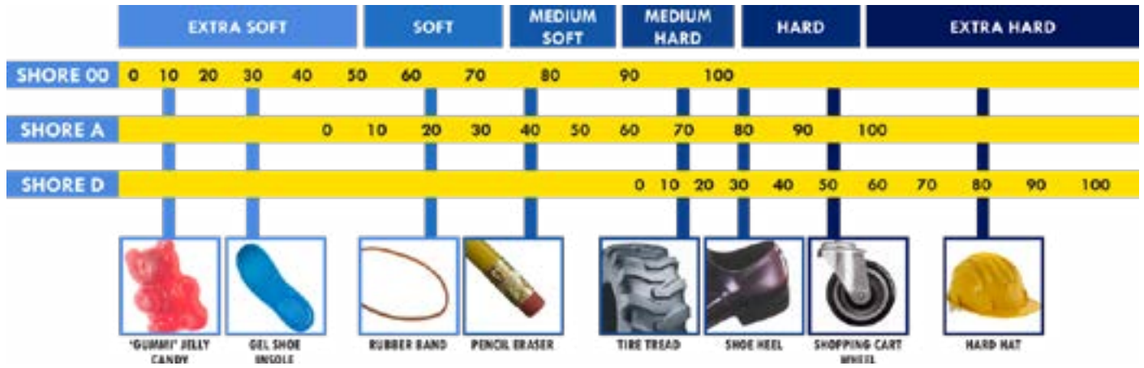
Understanding
Shore Hardness

Durometer or Shore Hardness is the scale on which the Density of Rubber and Polyurethane are measured. Although scarcely understood, for High Performance Rubber and Polyurethane Rollers it is worthwhile getting an understanding of how the scale works.

Defined by Albert Ferdinand Shore, who developed a device to measure Shore hardness in the 1920s. Shore developed three scales to measure a compounds density; Shore 00, Shore A and Shore D – we normally use the Shore A scale. It is critical to select the correct compound shore to ensure a high performance. We can supply you with a Durometer so you can determine the hardness of your existing rollers. This will assist our technicians develop a roller to match or outperform your current rollers.

Below is an informative chart.

Durometer



THE PRODUCT RANGE.

HIGH PERFORMANCE RUBBER & POLYURETHANE ROLLERS, WHEELS & COMPONENTS

Machine **Components**

AMES Direct also specialises in custom Machine Components. We handle the complete process from design, tooling, material selection and manufacture. We work with engineers, designers, manufacturers and maintenance teams to develop their ideas into high performing parts suited to industry. We can assist with design, manufacture prototypes and manufacture low and high volume parts.

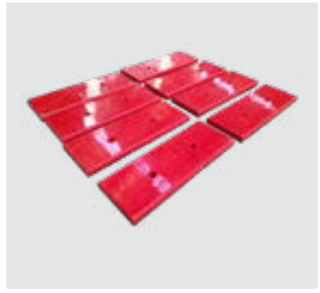
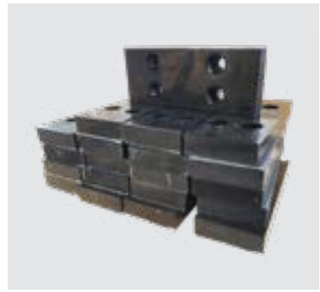
Custom components can be made easily from drawings or sample parts, and we excel in finding solutions for even the most difficult of jobs. We have an extensive range of materials including Polyurethanes, Rubbers, Metals & Plastics.

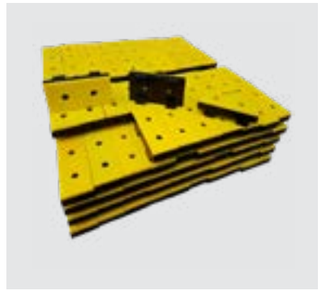
At AMES Direct we're experts in manufacturing Components from Hot Cast Polyurethanes. The benefits of using Polyurethane are;

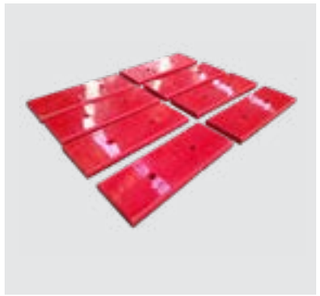
- Extremely tough – impact, abrasion, cut, tear.
- Varied Hardness's 10A – 70D Shore
- Dual Hardness – for wear monitoring, grip or sliding properties
- Low tooling costs
- Small & Big volume production runs
- Composite Parts – bonding to steel and alloys
- Short lead times
- Excellent surface finish
- RFID Tracking
- Lifecyle Monitoring

At AMES Direct we're experts in manufacturing Components from Rubber using the compression moulding method. The benefits of using Rubber are;

- Extremely tough – impact, abrasion, cut, tear.
- High Volume and low-cost parts
- Varied Hardness's 40A – 90a Shore
- Small & Big volume production runs
- Composite Parts – bonding to steel and alloys









CRUX

YOUR PRODUCTION IS OUR INNOVATION

HIGH PERFORMANCE RUBBER & POLYURETHANE ROLLERS, WHEELS & COMPONENTS

PRODUCTS

Conveyor **Sleeves**

We have developed a Press-fit Sleeve to suit 50mm Diameter Conveyor Rollers. These provide protection to the conveyed product from scratches, dents and noise generated from the steel roller.
Manufactured from Polyurethane these are easily custom made to length, colour and hardness. The fit snug over the 50mm Roller with the assistance of compressed air. We can fit the sleeves to you rollers or supply the sleeve & tooling for you to fit in your workshop.

These Conveyors Sleeves are proving popular in;

- Aluminium Production Lines
- Powder Coat Lines
- Airport Security Conveyors
- Glass Production Lines
- Logistic Distribution Centres
- Food Production Lines

PRODUCTS

Transmission **Wheels**

AMES Direct has developed a solution to refurbishing Transmission Rollers. By removing the existing Polyurethane lining and relining the roller with a High Performance UV & Abrasion Resistant Polyurethane designed for optimum performance and longevity in the field.

Benefits:

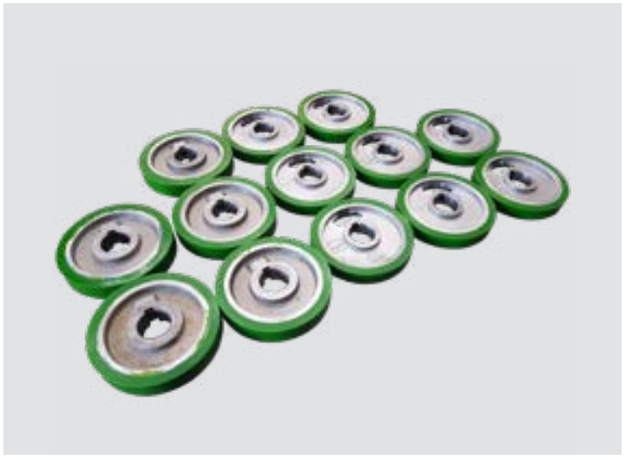
- Compliant Rollers
- 1/3 of replacement Cost
- Better than OEM Polyurethane
- Correct Bonding Process (Sandblast & Primed)
- Bearings Replaced
- Australian Owned & Made
- Fast Turnaround—we will work around your project require requirements
- New Bolts & Nuts
- More Professional—Finished Product presents better

Weinig Moulder
Feed Rollers

AMES Direct has a solution for recovering worn Weinig Feed Rollers. From experience recovering many Weinig Wheels over the years, we have streamlined the production process these wheels go through to recover these rollers.

Benefits

- Purchase price less to recover a roller v's purchase brand new
- Polyurethane offers better wear life than OEM Rubber
- High Performance Polyurethane Compound
- Less time replacing rollers = Reduced Downtime
- Custom Formulation available – change the hardness for your specific application
- Increased Drive – increase L/M output
- Non-marking – protects your product
- Outsmart your competition with High Performance Rollers
- Reduce Waste – re-use your existing cores



Hundeggar
Saw Rollers

AMES Direct has developed a solution for recovering worn Rollers used in the Hundeggar Saws. By removing the old worn Rubber we are able to re-use the roller core by recovering with a High Performance Polyurethane which will outlast OEM Rollers at a reduced purchase price.

Benefits

- Purchase price less to recover a roller v's purchase brand new
- Polyurethane offers better wear life than OEM Rubber
- High Performance Polyurethane Compound
- Less time replacing rollers = Reduced Downtime
- Custom Formulation available – change the hardness for your specific application
- Increased Drive – increase L/M output
- Non-marking – protects your product
- Outsmart your competition with High Performance Rollers
- Reduce Waste – re-use your existing cores

We are always close to you.

AMES Agency Australia was established in Sydney, NSW in 1938 and quickly became recognised as the market leader providing Speciality Tools to the electronics industry and Rubber Rollers nationwide. At the turn of the century AMES Agency moved to the Central Coast and renamed AMES Rollers, where we were focused on Rollers and took our reputation to the next level.

AMES Direct as we are known today, is 100% Australian owned and operates from Goulburn, NSW. From our new facility we are able to continue to adopt new and evolving technology. Our focus is in the supply of High Performance Rubber & Polyurethane Coverings on Rollers & Wheels - AMES Direct is now truly the direct supplier for all your requirements.

We have a dedicated team of staff whose goal is to identify the problem, suggest the most appropriate options and then manufacture in the most efficient, cost effective solution whilst under the scrutiny of our Quality Controlled workshop. Servicing a vast range of industries, you will benefit from our strengths in industry experience, real customer service and a commitment to exceed your requirements. While not qualified chemists, our team have unparalleled knowledge of the industry and are always available to provide expert advice on compounds and surface finishes that will suit your application.

Get in touch today to Learn more about AMES Direct

What makes us different.

We offer a solutions that sets us apart from the industry

- Quotes within 12 hours for standardized work
- Experienced Specialists in the Industry who are available for 24/7 phone call advice and on-site visits
- Our focus is on High Performance – not only high quantity
- Quality Controlled Processes – electronic Job Card system and QA Checks
- Customer Focussed and Service Driven – we understand the costs of downtime and we work with clients to eliminate unscheduled downtime
- 100% Australian Owned and Operated Family Business with Young and Energetic Management and Team
- We have taken on new High Performance Rubber & Polyurethane Formulations and are we are continuously developing new & improved Formulations and Processes
- We can take care of the whole process including freight, roller manufacture and journal repairs, recovering, balancing, and bearing replacement

HIGH PERFORMANCE RUBBER & POLYURETHANE ROLLERS, WHEELS & COMPONENTS