

ISSUE #9



# MRO SOLUTIONS



**PREVENT,  
PREDICT,  
PROGRESS**

Maintenance solutions to keep  
your operations running

[nz.rs-online.com](http://nz.rs-online.com)

# PREDICT, PREVENT, PROGRESS WITH RS MAINTENANCE SOLUTIONS

**Keeping your plant moving is vital, and predictive and preventative maintenance are key components in any maintenance strategy targeting zero production downtime.**

It's time to get on top of your maintenance activities, not the other way round.

Does it seem like an impossible dream to consign unplanned downtime to history? It needn't. You've no doubt moved beyond reactive maintenance in some way or another, whether through small improvements to stop the same problem repeating

again and again, or much bolder strides towards a structured predictive maintenance future.

It is a complex area, and knowing where to start, and what actions can be taken can seem overwhelming. However, RS has incredible experience in this field, not just with our stocked range of parts and products that can be used as part of a preventative or predictive strategy. But also in solutions we can deploy on your site to help you gain the upper hand on maintenance.

In this guide you will find off the shelf product solutions which can help you predict, prevent and progress with your day-to-day maintenance, combined with an introduction to our maintenance services which give you access to expertise and experience in the field of predictive maintenance.



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# THE ONLY SOURCE YOU NEED

## OVER 650,000 PRODUCTS AND 2,500 LEADING BRANDS PLUS A PORTFOLIO OF SERVICE SOLUTIONS

Whatever the industry sector, businesses are faced with an ever-changing world, financial pressures, and demanding stakeholders. Partnering with a collaborative, flexible, and forward-thinking supplier can help you complete your mission, while saving time and money.

We'll work with you to improve your supply management performance for commercial success. We'll deploy our suite of next generation inventory, procurement, and maintenance solutions designed to reduce costs and optimise productivity. We'll combine these with data insight which enables you to optimise your supply chain, sharpen your processes, and define cost saving strategies that will reduce the total cost of ownership and drive operational efficiency.

We have a complete suite of services, underpinned by a market leading product offer, backed by high service and availability. Combined, this enables us to offer you a complete solution.

Our solution portfolio reflects the complex needs of our B2B industrial customers through every step of the asset lifecycle. RS Group has everything you need in one place and we are keen to reduce the time and process waste associated with the procurement of MROP supplies, to boost your facility's uptime.

Each of our solutions are supported by a dedicated team of industry experts.

- Design & Manufacturing Solutions
- Procurement Solutions
- Inventory Solutions
- Maintenance Solutions
- Customer Order & Delivery Solutions

Our product portfolio has been developed over 85 years of experience helping engineers, designers and maintainers achieve their goals.

## 01 Drive efficiencies in your business

Our solutions specialists will work with you to examine your current processes and part usage. They'll then highlight cost-saving opportunities, areas where consumption can be reduced, and operational uptime optimised without impacting safety.

## 02 Spend less time dealing with suppliers

With over 650,000 products across our product ranges, we act as your single trusted source for all your industrial supplies and services, saving you valuable administration time. You really don't need to go anywhere else.

## 03 Reduce costs

Naturally you will benefit from the economies of scale we leverage with our best value pricing and our quality RS PRO brand alternatives, but we don't stop there. At RS we work pro-actively with our customers to find ways to deliver additional efficiencies.

## 04 Service you can trust

Our strong, supportive team of in-house technical experts are passionate about delivering the highest service levels in the industry. Day-to-day customer service is provided by your Account Manager supported by a dedicated Customer Services team and are backed up by a knowledgeable Technical Support team.

## 05 We are where you are

We pride ourselves on our large local stock holding plus our network of global distribution centres, providing a dependable access to the products you need. Our infrastructure and extensive delivery capabilities mean we can offer exceptional service to all our customers.

# RS LATEST NEWS

## RS Takes Out Top Spot at Modern Manufacturing Expo

The Modern Manufacturing Expo took place at the Sydney Showground from the 20th to the 21st September. This was a two-day event, focusing on the industry today - whilst offering attendees a peek into the manufacturing sector of tomorrow.

Over 50 leading companies in advanced manufacturing processes and products showcased their offering at the event.

RS attended this event with their immersive stand which included a RS PRO product showcase; and a fun addition: a robot racing track.

Throughout the event, the team at RS were able to answer the real-life questions that

manufacturers have today in the world of Industry 4.0.

The RS booth, perfectly placed at the entrance, was awarded best stand at the show.

Scott Philbrook, MD ANZ, said the event was a good representation of the industry in 2022.

**"THERE WAS A GOOD MIX OF NEW TECHNOLOGIES AND PROVEN MANUFACTURING METHODS PAIRED WITH THE BIG BRANDS THAT SUPPORT THIS INDUSTRY, WE REALLY ENJOYED BEING PART OF THIS FLAGSHIP EVENT IN SYDNEY."**

The event also marked the launch of the RS PRO & Engineers Without Borders

Australia (EWB) Student Sustainability Competition.

This competition was for university students/groups currently working on engineering projects who want to take their ideas to the next level.

RS PRO and Engineers Without Borders Australia were seeking students/groups to enter their concepts into the competition.

The prizes was one of five product packs worth \$3,000 which includes RS PRO components, tools, and accessories tailored to the project.

The five winners will be announced later in the year.



## RS Group awarded platinum-level sustainability rating by EcoVadis

**RS GROUP PLC HAS ANNOUNCED IT HAS BEEN AWARDED A PLATINUM MEDAL BY ECOVADIS, THE INDEPENDENT PROVIDER OF GLOBAL SUSTAINABILITY RATINGS USED BY MANY LARGE ORGANISATIONS TO HELP SUPPORT SUSTAINABLE PURCHASING DECISIONS.**

RS Group is no stranger to the award, having been a previous recipient of EcoVadis medal rankings and improving from silver to gold and now to the highest ranking, platinum, over the last couple of years.

The platinum medal puts RS Group in the top one percent of the 100,000-plus rated companies assessed by EcoVadis with each company rated on the material sustainability risks and issues for their size, location and industry.

In addition, RS Group was highlighted in the assessment as a leader in the areas of environment and sustainable procurement. RS Group now also joins RS France who achieved the platinum medal earlier in the year.

**"WE ARE IMMENSELY PROUD TO HAVE ATTAINED THE ECOVADIS PLATINUM MEDAL AND THIS DEMONSTRATES OUR STRONG COMMITMENT TO ESG,"**

said Debbie Lentz, President of ESG Solutions, RS Group.

**"HOWEVER, THIS SUCCESS DOES NOT MEAN WE HAVE REACHED THE UPPER LIMIT OF OUR AMBITION AND WE ARE ALREADY INVESTING IN ACTIONS TO FURTHER IMPROVE, AND TO HELP OUR CUSTOMERS AND SUPPLIERS TO REACH THEIR GOALS.**



**"IN TERMS OF SPEND, 47 PERCENT OF OUR SUPPLIERS ARE ECOVADIS-RATED COMPANIES, AND WE USE THESE METRICS TO MONITOR AND TARGET ESG IMPROVEMENTS WITH ALL OUR SUPPLIERS."**

The EcoVadis methodology is based on international sustainability standards (Global Reporting Initiative, United Nations Global Compact, ISO 26000). Its evidence-based assessment covers policies, actions and results across the key sustainability and ESG (environment, social and governance) dimensions of environment, labour and human rights, business ethics and sustainable procurement.





**Fluke ii900 Ultrasonic Leak Imager**

- Leaks in compressed air, gas, steam and vacuum systems hurt both production uptime and the operations bottom line
- The Fluke ii900 enables maintenance teams to quickly and accurately locate air, gas and vacuum leaks in compressed air systems; even in noisy environments
- The 7" LCD touchscreen overlays a SoundMap™ on a visual image for quick leak location identification
- The straightforward, intuitive interface allows technicians to isolate the sound frequency of the leak to filter out loud background noise
- In a matter of hours, the team can inspect the entire plant – even during peak operations



**FLUKE**  
187-6163

**Belt Alignment Tools**

- Poorly aligned drive belts or pulleys can significantly contribute to noise, vibration and wear leading to premature bearing failure and costly machine downtime
- This SKF belt-alignment tool lets you check your pulleys, conveyors and belt drives are properly aligned with accuracy and ease
- This laser alignment tool is quick and accurate, delivering precise measurements that will help you reduce friction, energy consumption and noise from unnecessary vibration in your machinery
- Easy to attach using powerful magnets, and uses a laser so you can easily see and adjust both alignment and belt tension



**SKF**  
821-5077 TKBA 10 (up to 3m between pulleys)  
821-5086 TKBA 20 (up to 6m between pulleys)

**Fluke 805 Vibration Meter**

- Perfect for predictive maintenance activities on moving machinery. Measures overall machine vibrations, bearing vibrations and temperature simultaneously
- Overall vibration levels are compared to preprogrammed alarm levels, and machine condition is provided in four stages
- Bearing condition is assessed automatically, without needing to know the shaft diameter and rotational speed of the bearing, nor the bearing class
- All measured values can be stored and exported to an MS Excel template to create trend plots that help to predict the machine- and bearing condition



**FLUKE**  
811-1397

**FLIR Si124 Ultrasonic Leak Detector**

- Minimise excess utility costs, equipment failures, and downtime by ensuring proper air pressure to pneumatic equipment
- This lightweight, one-handed solution can be used to identify issues up to 10 times faster than with traditional methods
- Built with 124 microphones, the Si124 produces a precise acoustic image that visually displays ultrasonic information, even in loud industrial environments
- The acoustic image is transposed in real time on top of a digital camera picture, which allows you to accurately pinpoint the source of the sound
- Results can also be stored, shared and analysed via the cloud



**TELEDYNE FLIR**  
Everywhere you look  
210-1916

**Drive Belt Tension Tester**

- Loose or poorly tensioned drive or timing belts can cause premature failures; check tension with a digital acoustic tension tester
- This measures the frequency at which belts vibrate
- Designed even for difficult-to-reach places, ideal for quickly and easily checking the tension of V-belts, ribbed belts and timing belts
- Tension recommendations can be taken from Optibelt specifications and CAP calculations



**optibelt**  
178-0775

**FLIR C5 Compact Thermal Camera**

- Quickly find hidden faults and reduce diagnostic time – has a 160 x 120 true thermal imager and 5-megapixel visual camera
- Pinpoint and communicate potential issues faster – upload images directly and document problems and repairs
- IP54 rating – high level of protection against water and dust
- Portable and rugged: it will withstand a 2m drop
- LED flashlight to help see in dark and hard to reach areas



**TELEDYNE FLIR**  
Everywhere you look  
201-6980



**FLIR SV87 Vibration Meter**

- Make informed decisions about machine operation and maintenance, reducing unplanned downtime, lowering operational costs, and improving profitability
- A wireless connected sensing-solution designed for continuous vibration and temperature monitoring
- Ideal for manufacturing environments that use rotating machinery, industrial pumps, fans, gearboxes, and motors
- Vibration trending and analysis can help detect serious problems with industrial machines long before the damage can be seen
- The remote monitoring gateway (supplied with kit) stores sensor data and wirelessly transmits readings in real time to a mobile device or PC for analysis



**TELEDYNE FLIR**  
Everywhere you look  
211-0028 SV87 kit (4 sensors and gateway)  
211-0027 SV87 additional sensor

**RS PRO Multi-Function Calibrator**

- Degradation of components including sensors, valves, even PLC I/O can cause the process to vary from its optimum parameters
- Prevent problems by checking performance of 4-20mA loops and temperature controlled devices periodically
- This loop calibrator offers precision for temperature measurement and calibration accuracy with a wide measurement range
- Source and measure current loops (including simultaneously)
- User friendly and ergonomic instrument with soft touch buttons, built in stand and easy to use settings



**RS PRO**  
174-9557

**ACOEM Bearing Defender Vibration Meter**

- Offers instant advice on the health of your bearings. It makes sure that your machine can keep spinning without risk
- Easy to use and incredibly fast
- Clear red/amber/green indication via an app of: 3D bearing health, 3D misalignment or unbalance, 3D miscellaneous defects
- Physical contact enabled by screwfit contact point or bipolar magnet (both included in pack)
- Only 42mm diameter x 116mm height, and operating temperature range -20°C to 60°C



**acoem**  
206-3807

**MIT200 Insulation & Continuity Testers**

- Insulation testing to 1000MΩ
- Continuity testing at 200mA down to 0.01Ω
- Live circuit warning (voltage display) and test inhibit
- Digital/Analogue display
- CATIII 600V
- Choice of 2 or 3 test voltages depending on model



**Megger**  
535-3185 MIT220 250V/500V  
535-3191 MIT230 250V/500V/1000V

**Castle GA2002 Pocket Vibration Meter**

- Perfect for general machine and bearing vibration monitoring for predictive maintenance
- Offers reliable, repeatable and simple vibration measurements
- Measures acceleration, velocity and displacement in one instrument
- Supplied with accelerometer, cable, spike probe and case



**Castle**  
303-3722



## RS CALIBRATION

### Remove the doubt from your equipment

Confidence in the accuracy of your equipment is vital. RS Calibration service helps to ensure the compliance and accuracy of your instruments, whether you purchased these from RS or elsewhere. Our service provides full traceability to either national or international standards through either ISO9001:2015 or NATA certification. From thermometry to test meters and measuring devices, you can be confident your equipment is compliant.

### BUY CALIBRATED OR RECALIBRATE

Buy now, calibrated, read-to-use equipment or, request recalibration of your own products

### ACCREDITED LABORATORY

ISO9001:2015 Standard or NATA-accredited laboratory

### FAST DELIVERY & TRACEABILITY

Have full traceability of all your equipment's conformity for audit purposes with a fast turnaround and delivery



To learn more about this service and make an enquiry either visit [nz.rs-online.com/calibration](http://nz.rs-online.com/calibration) or scan the QR code



## PREDICTIVE TEST & MEASUREMENT

### Fluke TiS75+ Thermal Camera

- Be proactive instead of reactive. Fluke thermal cameras are: Rugged. Reliable. Accurate. Perfect for predictive maintenance in an industrial environment
- Infrared resolution: 384 x 288
- Temperature range: -20°C to 550°C
- 3.5" VGA touchscreen LCD display
- Water and dust resistant to IP54
- Engineered to withstand a 2m drop



215-3173 FLK-TIS75+ 9HZ - 384 x 288 pixel

### FLIR Ex-Series™ Thermal Imaging Cameras

- Powerful, cost-effective, easy-to-use troubleshooting tools for electrical and mechanical predictive maintenance
- Excellent resolution sensors to help with detail, further aided by MSX to enhance IR images with visual detail for better perspective and interpretation
- Accurately measures temperature from -20°C to 550°C
- Wi-Fi connectivity to smartphones and tablets via the FLIR Tools® Mobile app makes sharing images from any location easier, so you can review and compare images to make critical decisions faster



184-6124 FLIR E8-XT IR resolution 320 x 240 pixels

### Fluke 1736 and 1738 Three-Phase Power Loggers

- Make critical power quality and energy decisions in real-time
- Have more visibility into the data you need to optimise system reliability and savings. These are ideal for conducting energy studies and basic power quality logging, automatically capturing and logging over 500 power quality parameters
- Identify issues that can cause critical machine downtime, measuring all three phases and neutral with included 4 flexible current probes



900-9974 FLUKE-1736/EUS Power Logger

900-9986 FLUKE-1738/EUS Power Logger - advanced version



893-8489



### FLIR AX8 Thermal Sensor

- A compact and easy to install thermal imaging camera for continuous condition monitoring
- Provides continuous temperature monitoring and alarming for critical electrical and mechanical equipment
- Automated alarming when pre-set temperature thresholds are exceeded
- Temperature trend analysis
- Results can be shared to a PLC

### RS730 Thermal Imaging Camera

- Often, developing faults reveal themselves through generating heat. This thermal camera is great for spotting these problems early, so you can intervene before the problem develops
- Display: 2.8" LCD, 240 x 320 pixels
- IR resolution: 160 x 120 pixels
- Image frequency: 50Hz
- Battery operating time: approx. 4 hours
- Integrated LED light



136-5668

### Fluke 810 Vibration Tester

- The most advanced troubleshooting tool for mechanical maintenance teams who need an answer now
- The unique diagnostic technology helps you quickly identify and prioritise mechanical problems, putting the expertise of a vibration analyst in your hands
- Puts you one step ahead by using a simple step-by-step process to report on machine faults the first time measurements are taken, without prior measurement history
- The combination of diagnoses, severity and repair recommendations help you make informed maintenance decisions and address critical problems first



744-2192



**TeSys™ island Digital Load Management**

- Knowing the current and load status of motor driven systems can provide insight into operational or wear trends, allowing improved maintenance scheduling and reduced downtime
- TeSys island is an innovative, modular, digital load management solution which provides integrated control, monitoring and diagnostics of low-voltage motor loads
- As a connected solution data can flow seamless via Ethernet/IP or Modbus TCP to HMIs, SCADA or other management systems giving operations and maintenance teams real-time visibility of motor load conditions
- Scan the QR code to use our Tesys island configurator



- 204-8279** TPRBCEIP Ethernet/IP, Modbus TCP Bus coupler, 24 V dc
- 204-8285** TPRVM001 Voltage Monitoring module, 3 phase
- 204-8274** TPRPM009 Power Interface Module 4kW
- 204-8275** TPRPM038 Power Interface Module 18.5kW
- 204-8281** TPRPM080 Power Interface Module 37kW
- 204-8287** TPRST009 3-pole starter 4kW
- 204-8289** TPRST025 3-pole starter 11kW
- 204-8282** TPRST038 3-pole starter 18.5kW
- 204-8291** TPRST065 3-pole starter 30kW
- 204-8277** TPRST080 3-pole starter 37kW
- 394-9986** LAD9R1 Reversing Contactor kit

**Modicon M262 Motion & Logic Controller**

- An IIoT ready motion & logic controller offering class leading connectivity and 3-5ns/Inst processing performance
- Each controller has 4x high speed inputs & digital outputs with motion control versions featuring an Incremental/SSI encoder input, all expandable with Modicon TM3 I/O modules
- 4 ethernet ports acting as a hub including: 2 x Gigabit and 1 x 100Mbps both with Ethernet/IP and Modbus TCP



- 201-1450** TM262L10MESE8T - 5ns/inst - Logic
- 201-1448** TM262L20MESE8T - 3ns/inst - Logic
- 201-1476** TM262M15MESS8T - 5 ns/inst - 4 axis Motion
- 201-1491** TM262M25MESS8T - 3 ns/inst - 8 axis Motion
- 201-1461** TM262M35MESS8T - 3 ns/inst - 16 axis Motion

**3-Phase Monitoring Relay with NFC**

- Current monitoring helps indicate potential failures before they occur - allowing for planned maintenance instead of costly downtime.
- This 3 phase monitoring relay offers configuration via FREE Zelio NFC Android App, simplifying setup
- Capable of monitoring phase asymmetry, phase failure detection, under/overvoltage, over & under frequency with 2 C/O outputs with adjustable thresholds



- 179-0019** RMNF22TB30 (120-480Vac)

**Unmanaged Ethernet Switches**

- Great value Ethernet switches with TP RJ45 ports and data transmission speeds of 10/100 Mbps
- 5-30Vdc supply voltage with autocrossing function and LEDs: Us, link and activity per port
- IP-20 polyamide case with removable screw terminal power block



- 144-8673** 5 RJ45 Ports - DIN rail mount
- 226-3243** 7 RJ45 Ports - Surface mount
- 144-8674** 8 RJ45 Ports - DIN rail mount

**Multi-sensor predictive maintenance kit**

- The STMicroelectronics multi-sensor predictive maintenance kit with IO-Link stack v.1.1 is designed to meet requirements of industrial applications
- It has expansion connector with GPIO, ADC, I<sup>2</sup>C bus, timer
- It is managing key parameter coming from environmental, vibration and acoustic senso



- 201-3600** STEVAL-BFA001V2B

**SmartMONITOR Monitoring & Andon Solution**

- SmartMONITOR is the smart monitoring and data collection solution for businesses looking to gather reliable data to optimise manufacturing processes
- Provides both an Andon light wireless solution for call-for-action and operational monitoring
- A complete plug-n-play solution which can be retrofitted and offers either manual control or full PC monitoring



- 184-5123** WIN Wireless Receiver with Ethernet
- 184-5124** WIN Slave Transmitter Module
- 185-3038** WIN KombiSIGN 71 Base Unit
- 184-5126** Red KombiSIGN LED Module
- 184-5128** Amber KombiSIGN LED Module
- 184-5127** Green KombiSIGN LED Module
- 455-3407** KombiSIGN Terminal Unit
- 314-7332** KombiSIGN Tube Mounting Base

**AC30 Series FRL Assemblies**

- Poor quality, contaminated or under-lubricated air can drastically reduce the operational life of pneumatic actuators. Filter and lubricate air systems correctly to maximise component life
- These filter regulator lubricators have been redeveloped and feature a double layer, transparent bowl for better level visibility and extended working life
- Various options are available including normally open or normally closed auto-drain function, round or square pressure gauges and panel mounting kits



- 885-5892** AC30-F03-B G 3/8" without pressure gauge
- 885-5883** AC30A-F03G-B G 3/8" with pressure gauge
- 885-5895** AC30-F03D-B G 3/8" without pressure gauge
- 885-5886** AC30A-F02D-B G 1/4" without pressure gauge
- 885-5889** AC30A-F03D-B G 3/8" without pressure gauge
- 885-5877** AC30A-F02-B G 1/4" without pressure gauge

**20AG High Flow Pressure Regulators**

- Reducing air pressure can save energy - and therefore cost - and extend component life
- IMI Norgren 20AG series protect air operated equipment from over pressurisation and are used for pneumatic applications
- The high flow pressure regulators guarantee high performance with excellent stability
- Ported regulators for general purpose and high flow pneumatic applications
- Large diaphragm provides accurate and quick response to changing flow demands and line pressure
- Balanced valve minimises effect of variations in inlet pressure on outlet pressure



- 822-4046** 20AG-X4G-PH100 G 1/2 0.2bar to 8bar
- 218-0143** 20AG-X4G-PH103 G 1/2 0.2bar to 8bar
- 218-0144** 20AG-X6G-PH100 G 3/4 0.2bar to 8bar
- 218-0146** 20AG-X8G-PH100 G 1 0.2bar to 8bar



**Round Line Cylinder DSNU - - PPS**

- Very durable cylinder based on ISO 6432 with self-adjusting end-position cushioning and extensive accessories
- Wide range of variants for customised applications
- Good running performance and long service life
- Self-adjusting pneumatic end-position cushioning which adapts optimally to changes in load and speed
- For position sensing



- 121-4726** DSNU-16-20-PPS-A 16mm bore, 20mm stroke
- 121-4729** DSNU-16-25-PPS-A 16mm bore, 25mm stroke
- 121-4735** DSNU-16-50-PPS-A 16mm bore, 50mm stroke
- 121-4716** DSNU-16-125-PPS-A 16mm bore, 125mm stroke
- 121-4688** DSNU-25-50-PPS-A 25mm bore, 50mm stroke
- 121-4650** DSNU-25-100-PPS-A 25mm bore, 100mm stroke

**Profile Cylinder DSBC - - PPS**

- Standards-based cylinders to ISO 15552
- Double-acting
- For contactless position sensing
- Innovative PPS cushioning: pneumatic cushioning, self-adjusting at both ends
- No more adjusting cushioning!
- Extensive range of options



- 121-5252** DSBC-32-40-PPSA-N3 32mm bore, 40mm stroke
- 121-5230** DSBC-32-100-PPSA-N3 32mm bore, 100mm stroke
- 121-5286** DSBC-40-50-PPSA-N3 40mm bore, 50mm stroke
- 121-5282** DSBC-40-400-PPSA-N3 40mm bore, 400mm stroke
- 121-5029** DSBC-50-50-PPSA-N3 50mm bore, 50mm stroke
- 121-4769** DSBC-50-200-PPSA-N3 50mm bore, 200mm stroke
- 121-4783** DSBC-50-500-PPSA-N3 50mm bore, 500mm stroke

**Compact Cylinder ADN - - PPS**

- The compact standard cylinder ADN/ AEN to ISO 21287
- Highly flexible with wide range of variants
- Contactless position sensing
- Long service life thanks to innovative self adjusting PPS cushioning and minimal friction



- 121-5745** ADN-32-15-I-PPS-A 32mm bore x 15mm stroke
- 202-8833** ADN-32-30-A-PPS-A 32mm bore x 30mm stroke
- 121-5755** ADN-32-50-I-PPS-A 32mm bore x 50mm stroke
- 121-5762** ADN-40-10-I-PPS-A 40mm bore x 10mm stroke
- 121-5770** ADN-40-30-I-PPS-A 40mm bore x 30mm stroke
- 121-5774** ADN-40-50-I-PPS-A 40mm bore x 50mm stroke
- 202-8861** ADN-63-60-A-PPS-A 63mm bore x60mm stroke



# HOW IS SUPPLY CHAIN AUTOMATION IMPROVING THE INDUSTRY IN 2023?

Supply chain leaders have recently dealt with long-term materials shortages and complications from the COVID-19 crisis, among other challenges. Many decision-makers have started pursuing supply chain automation options. Here are some ways such technology has brought positive, industry wide changes.

## Warehouse Workflow Enhancements

Many supply chain leaders have difficulties finding well-qualified workers and retaining them for the long term. Others can't afford to grow their workforces as much as they'd like but still find they need some form of help. In such cases, supply chain automation in the form of robots can help fill the gaps.

A 2022 prediction from Gartner analysts is that 75% of large enterprises will use intralogistics smart robots in their warehouses by 2026. They believed a combination of factors, such as labour availability constraints and the still-present impacts of COVID-19, would increasingly encourage leaders to look at ways to combine human effort and advanced technologies.

Another survey from the first quarter of 2022 sought to find out what stage respondents were at in their deployment of intralogistics robots. One takeaway was that more supply chain professionals are planning to use robots than they are now. Less than 30% of respondents are doing this, while 52% of the surveyed group said they plan to or are using them.

Another finding is even more significant, though. It indicated that most people utilizing robots now intend to increase their fleet sizes and see how well the machines perform in different tasks.

That strongly suggests the robotic deployment paid off for them. It's natural for leaders to hesitate to scale their technology usage until they see evidence that the initial investments worked at least as well as expected. However, most professionals agreed the investments were worthwhile, and they're ready for more.

## Super-Charge Order Fulfillment

We live in a world where customers want accessible and current updates about where their shipped goods are at any time. That's one reason why many supply chain companies use logistics carrier integrations, which provide more control over orders after they leave warehouses. Carrier integrations simplify the steps needed to request shipping information, print labels and more.

Faster order fulfilment happens in other ways, too. Walmart has a custom-built solution to transport products through its warehouses, resulting in them getting to customers sooner.

The technology picks and dispenses items by moving in three directions and across three temperature zones. Moreover, this happens without the use of lifts or conveyors. That setup provides better flexibility inside Walmart's facilities and eliminates the need to pause an entire system for maintenance.

Pick-to-light systems are another supply chain automation option. They feature alphanumeric displays, usually comprised of LED lights.

They use light to show the path and location of items to retrieve, and people also see the number of products to grab. Some pick-to-light systems display additional information or let the warehouse worker acknowledge the picking request and get a new one. One of the many advantages is that they cut training time down to about 30-45 minutes.

A 2022 industry executive survey found that 56% of supply chain and logistics professionals had increased their supply

chain investments over the past year. When asked about what they purchased, 57% of that group said technology.

The survey results also confirmed that many respondents prioritized order fulfilment.

About 41% focused on maintaining or optimizing their efforts in that area. The study did not go into detail about how many respondents specifically invested in automation. However, since automated technologies are gaining prominence and becoming increasingly accessible, it was likely a significant percentage.

## Boost Reliability and Sustainability

Many supply chain leaders have difficulties finding well-qualified workers and retaining them for the long term. Supply chain automation often pairs well with other kinds of advanced technologies.

For example, many company leaders use artificial intelligence (AI) to improve their demand-planning capabilities and enhance overall visibility.

Recent research from IBM indicated that 47% of chief supply chain officers had introduced new automation technologies in the past two years. That approach can help them enjoy more predictability and reliability.

The study also segmented some respondents into certain groups. About 20% of respondents, categorized as The Innovators, stood out for how they moved ahead with data-based innovations.

They also outperformed peers in many ways, including by seeing 11% higher revenue growth than users in other categories. The Innovators were 95% more likely to integrate automated workflows across their organizations and with industry partners than other chief supply chain officers.

Another takeaway from the study was that 52% of respondents put sustainability at or near the top of their priorities. The good news is that supply chain automation can make businesses more sustainable, too.

Some experts assert companies can save an average of 75% on energy bills by operating automation-driven dark warehouses and using robotic picking solutions. One company's robots are so energy-efficient that 10 of them only consume the same watts as one household vacuum cleaner.

Supply chain leaders may go even further by installing rooftop solar panels on their warehouses and other facilities. That way, the energy-efficient machinery integral to automated supply chain solutions can get its power from renewable sources.

## Successful Supply Chain Automation Requires an Individualized Approach

These are some of the fascinating ways companies have gotten returns on investments by pursuing warehouse automation. People are most likely to have similar results if they carefully consider the most apparent weak links in their supply chains. From there, they can research technologies on the market or consider having something custom-built to meet their needs.

Supply chain leaders should also consider the sizes of their budgets and initial investments. Understandably, many don't want to allocate a lot of money upfront for new automated options.

However, they'll be more open to expanding their budgets for automation's sake when it becomes clear the technology brings meaningful gains.

There's no universally best way to deploy automation throughout the supply chain. However, decision-makers who assess individual needs and set specific goals typically have promising outcomes.

Article originally appeared on

## Connected Thinking

Connected Thinking has been created by RS to provide valuable insight and procurement expertise to both businesses and individuals involved in the sectors we support.

RS doesn't simply supply customers with products; we collaborate with organisations to help identify better working practices that will help them to achieve sustainable efficiencies.

Read more at [connectedthinking.com](https://connectedthinking.com)



# PRODUCT RANGE

OVER 650,000 PRODUCTS, MORE THAN 2,500 BRANDS.

We offer a broad and extensive product range to support our industrial and electronics customers with 650,000+ stocked products, from over 2,500 suppliers – including our own brand, RS PRO.

A few of our most popular global and local brands:



## RS PRO

RS PRO is our own-brand product range of more than 65,000 high-quality, competitively priced industrial product and electronic components.

RS PRO offers customers a choice where the combination of quality, performance and price create exceptional value. All RS PRO products and components are backed by the



[rspro.com](http://rspro.com)

## Electronics Components, Power & Connectors

- Batteries & Chargers
- Connectors
- Displays & Optoelectronics
- Passive Components
- PCB Prototyping
- Power Supplies & Transformers
- Raspberry Pi, Arduino & Development Tools
- Semiconductors



## Electrical, Automation & Cables

- Automation & Control Gear
- Cables & Wires
- Enclosures, Storage & Material Handling
- Fuses, Sockets & Circuit Breakers
- HVAC, Fans & Thermal Management
- Lighting
- Relays
- Switches



## Mechanical Products & Tools

- Abrasives & Engineering Materials
- Adhesives, Sealants & Tapes
- Facilities Cleaning & Maintenance
- Fasteners & Fixings
- Hand Tools
- Plumbing & Pipeline
- Pneumatics, Hydraulics & Power
- Transmission
- Power Tools, Soldering & Welding



## IT, Test & Safety Equipment

- Computing & Peripherals
- Facilities Cleaning & Maintenance
- Office Supplies
- Personal Protective Equipment & Workwear
- Security & Ironmongery
- Site Safety
- Test & Measurement



[nz.rs-online.com/brands](http://nz.rs-online.com/brands)



**Threadlocking**

- Designed for locking and sealing threaded fasteners to reduce the effects of vibration and in operation loosening
- Low strength and low viscosity, suitable for threads up to M12
- Cures within the gap between close fitting metal surfaces, but unlike glue doesn't impede removal



**LOCTITE**

<b>787-7396</b>	Loctite 221 - low strength
<b>408-4080</b>	Loctite 243 - medium strength
<b>508-6649</b>	Loctite 2701 - high strength

**SAPPHIRE® Bearing Grease**

- Designed to provide effective lubrication and protection for bearings operating under a wide variety of conditions
- Increases bearing life and prevents premature failure which reduces maintenance costs and avoids costly unplanned downtime
- Cartridges shown, for other options visit our website



**ROCOL**

<b>330-6301</b>	Sapphire® 1 multi purpose 400g
<b>238-6362</b>	Sapphire® 2 heavy duty 400g
<b>238-6413</b>	Sapphire® Hi-Load 2 long life multi purpose with MoS2 400g
<b>733-4997</b>	Sapphire® Advance 2 multi purpose EP with PTFE
<b>238-6407</b>	Sapphire® Aqua 2 multi purpose water resistant EP 380g
<b>330-6288</b>	Sapphire® Hi-Pressure high load with MoS2 400g
<b>330-6171</b>	Sapphire® Extreme high load/temp with MoS2 400g

**Castrol 20 Litre Oil Drums**

- Premium oils developed for specific environments, sold in 20 litre drums
- Alpha SP - ideal for industrial gear boxes with forced circulation or splash and oil bath lubrication
- Aircol MR - compressor oil designed to meet the requirements of oil flooded rotary screw compressors
- EPX 80W/90 - developed for use with spiral bevel and hypoid differentials



**Castrol**

<b>463-3547</b>	Alpha SP	<b>£157.94</b>
<b>463-3519</b>	Aircol MR	<b>£179.06</b>
<b>463-3597</b>	EPX 80W/90	<b>£180.08</b>

**5.56 Multi-purpose**

- 5.56 is a multi-purpose product with superior penetrating power that breaks through rust and corrosion while it clears away scale and dirt
- Lubricates for smooth action, and silences annoying squeaks and squeals



<b>238-7805</b>	5005 - 400g
<b>238-7806</b>	5006 - 4L
<b>238-7803</b>	5004 - 1L

**Non-Slip Waffle Rubber Mounting Pads**

- Ideal for absorbing vibrations on a surface, mat has been specially compounded to isolate vibration and is a lightweight, non-slip solution for applications where bolting needs to be avoided
- By using a mix of natural and neoprene rubber material, the mat provides long term durability with better protection against oils and grease, and has a low creep rate
- 457 x 457mm



**RS PRO**

<b>203-5153</b>	8mm depth
<b>203-5155</b>	13mm depth
<b>203-5160</b>	19mm depth

**Silicone Lubricant**

- General-purpose, medium-duty spray with excellent anti-stick and anti-slip properties
- Ideal for use where a clean, colourless lubricant is required; safe to use on wood, glass, fabrics, metals, most plastics, rubbers, and hard surfaces
- Eliminates friction and fabric drag
- Can be used as a mould release agent
- 400ml



**Ambersil**

**495-4850**

# WELL-LUBRICATED MAINTENANCE: A STRATEGY FOR SUCCESS

THE DEVIL'S IN THE DETAIL WHEN IT COMES TO KEEPING AN OPERATION RUNNING SMOOTHLY – AND A CLOSER LOOK AT SOMETHING AS SIMPLE AS THE OIL USED IN MACHINES CAN BE HUGELY REVEALING.

The benefits of data analysis have been widely acknowledged for decades. But getting that data from a machine into an analytics platform – and being able to work with it in real-time – is far from commonplace. Now smart sensors, the Industrial Internet of Things (IIoT), connected supply chains and more are opening up a world of possibility. But you don't need a smart factory to start putting intelligence at the heart of your maintenance operations.

**OIL'S WELL THAT ENDS WELL**

Oil is one of the most abundant materials in engineering. This ubiquity means it can be easily overlooked – but it has a value that goes beyond the immediately obvious. Taking an oil sample from a piece of machinery can provide a wealth of information. The presence of sediments and unexpected properties, such as tiny fragments of metals, can be a clear indicator that all is not well.

In fact, the overwhelming majority of cases of mechanical wear can be attributed to lubrication contamination. Between 50% and 80% of rotating asset failures could be attributed to lubrication errors. Massachusetts Institute of Technology (MIT) has estimated around \$240 billion is lost each year in the US alone because of manufacturing equipment damaged by poor lubrication. The quality of the oil doesn't just show the oil itself needs to be changed. It could also help predict an impending component failure. And the problem might not be as simple as the oil being old, as when servicing a car, for example – it might be the wrong choice altogether. "Lubrication is one of those common points of failure that we see routinely," says Gary Harvey, Head of Field Services, at RS. Consequently, identifying the right lubricants is vital. Too much, too little, or an unsuitable choice can cause a host of problems and take a machine offline unexpectedly. Step-by-step progress

Creating a sustainable strategy for enhanced lubricant selection is best approached iteratively. As with many planned changes in business, there is a risk that the size and scale of the challenge can be off-putting.

**5S FRAMEWORK**

The process followed by RS Maintenance Solutions is based on the Japanese 5S framework, whether as a completely outsourced or turnkey programme.

The 5S name breaks down like this:

- Seiri – sort: Remove any unnecessary distractions via a regular cleaning and maintenance regimen
- Seiton – set in order: Ensure critical items are always the most readily available

- Seiso – shine: Keep working environments clear to make it easy to spot if anything is out of order
- Seiketus – standardise: Create standardised processes that everyone understands and can follow
- Shitsuke – sustain: With everything else in place and no deviations from the process, everyone can maintain excellence and sustain it.

Dr Moray Kidd, Maintenance Engineering academic, explains why paying attention to the basics matters. "There are many examples of small inexpensive components within a larger system failing causing multi-million pound outages" he says.

In the Indirect Procurement Report 2020: The Evolution of MRO – RS Components' white paper produced in partnership with the Chartered Institute of Procurement & Supply (CIPS) – 42% of UK businesses said 'ageing assets' were their biggest cause of downtime.

Identifying the right lubricant for the right job is of paramount importance. To an extent, common sense and research will provide many of the answers here, but not all of them. In addition to set parameters around the machine – its component parts, the kind of work it will be doing and so on – there need to be additional assessments. These should include the working environment and a thorough examination of the machine in operation, ideally using ultrasound technology. Once the right lubricant has been selected, an application cadence should be established. The objective, clearly, is to avoid any potential over- or under-lubrication by ensuring the optimal reapplication timescales. That will depend on regular monitoring, especially in the early stages of establishing the process and application timetable.

Beyond identifying the right process involving the right lubricant, the next key step is ensuring ongoing consistency. "Poor reliability can result from a number of factors," explains Dr Kidd. "These include problems with the specification, design, manufacture, installation, commissioning and, of course, maintenance and operations. Each of these activities needs to be regarded as a link in a chain. Should any single link fail – or drop below the expected standards – system reliability will be negatively impacted."

If there is one key takeaway from gaining a better understanding of the importance of oil and lubrication it is that getting the fundamentals right pays off.

Regular assessments of oil condition and a solid strategy for maintained lubrication can keep even the oldest of equipment in better health. But only as long as that strategy is rolled out in a series of processes that can be followed and sustained.



**Touch-free electronic skincare dispenser**

- Most hygienic soap dispensing option
- Reliable, controlled dispensing
- Indicator lights for low product and low battery
- Suitable for facilities where hygiene is at the utmost importance
- Compatible with Kleenex® 6493, 34614, 91591



<b>202-7480</b>	White ABS plastic	92147
<b>202-7482</b>	Metallic ABS plastic	11329

**Boot Covers**

- Designed in a generous size making them easy to put on, with ankle ties for a secure fit.
- Provide a barrier between footwear and the environment.
- Keeping floors clean from contamination, no need to remove street footwear.
- Generous size, easy to put on
- Plastic ties for ankle, elastic at top
- Double layered on sole
- Waterproof
- One size fits all



<b>235-2980</b>	50506 - Box of 250
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**Air Duster**

- Inert, pure compressed gas for dust removal
- Ideal for removing particulates from inaccessible areas on delicate equipment



<b>168-1644</b>	400ml
<b>168-1642</b>	300ml

**Tough Wipes**

- Super high absorbency hand wipes with a polymer web that gives the cleaning of pumice without the scratching
- Highly effective on range of soiling including grease, oils, petrochemicals, paints, adhesives, tar, bitumen, resins
- Sold in tub of 100



**482-1508**

**Scott® Essential Jumbo Roll Toilet Tissue**

- One roll measures 300m, one case contains 8 rolls
- The high capacity dispensing system of Scott® Essential™ jumbo toilet tissues reduces maintenance during peak times
- 2-ply toilet rolls deliver superior softness, absorbency and comfort for users
- Improved efficiency as less time spent servicing and refilling
- FSC certified, environmentally friendly



<b>226-4115</b>	38004 - 2ply, 8 rolls x 300m
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**Complete Cleaning Kits**

- Ideal solution for all cleaning applications within a wide range of environments.
- The cleaning kit offers a one-stop bundle that has a mop and bucket set, as well as a dustpan and brush for general purpose cleaning within domestic, commercial and industrial areas



<b>201-3598</b>	Yellow
<b>201-3599</b>	Blue
<b>201-3596</b>	Red
<b>201-3594</b>	Green



**Aluminium Mechanical Floor Sweeper**

- Lightweight aluminum construction for improved productivity is safe for MRI rooms
- Features a nylon swivel joint for flexible maneuvering
- Rounded plastic end caps help protect walls and furniture
- One-step connecting mechanism speeds mop assembly and changeover



<b>242-5666</b>	250mm	FGQ55000YL00
<b>242-5618</b>	450mm	1863893

**Slim Jim® Step-On Container**

- Features a slim profile and small footprint to fit in tightest spaces.
- Constructed with premium-quality materials and meet the needs of any environment with efficiency,
- Quiet and controlled lid-closure minimizes noise to enhance guest and patient satisfaction



<b>202-4003</b>	50L, Yellow	1883575
<b>202-3999</b>	50L, White	1883557
<b>202-4001</b>	90L, White	1883561
<b>202-4004</b>	90L, Black	1883615

**Mobile Janitorial Cart**

- Preassembled locking security hood speeds up assembly and ensures all products will be secure
- Secure cabinet doors keep cleaning supplies concealed from view and locked up when carts are unattended



<b>241-1757</b>	129L, 3 Shelf	1861427
<b>615-7247</b>	230 V ac, Amber	E2XB05AC230B1R1B/A



**Microfibre Cloths for Wet/Dry**

- Proven to remove 99.9% of microbes
- Durable up to 200 commercial launderings and 100 with bleach
- Cloths are color-coded to assist in cleaning by area or task and help reduce cross-contamination



<b>238-0573</b>	Yellow	1820584
<b>238-0571</b>	Blue	1863893
<b>238-0570</b>	Green	1863892
<b>238-0569</b>	Red	1863891

**BRUTE Bins**

- Features innovative solutions for making refuse collection and storage more efficient.
- Innovative venting channels make lifting out liners up to 50% easier, improving productivity and reducing the risk of injury.
- Proprietary design constructed with the highest quality material plus a UV inhibitor ensures long life in even the most extreme commercial environments



<b>230-8231</b>	121.1L	FG263200GRAY
<b>146-2786</b>	167L	FG264360GRAY

**Heavy-Duty Platform Truck**

- Ideal for moving large, heavy, oversized loads efficiently throughout a facility with up to 1000 lb. capacity
- Features a precision-engineered Duramold™ Deck constructed of resin and metal composite
- Designed with 2 fixed casters and 2 swivel casters for improved maneuverability



<b>241-1795</b>		FG440300BLA
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**Bright Steel Round Nails**

- Steel construction
- Comes in plain bright finish
- Supplied in 500 g bags



- 385-0022** 25mm
- 384-9870** 150mm
- 384-9959** 65mm
- 384-0000** 40mm
- 384-9937** 75mm

**Circlip Kits**

- Stainless steel clips conform to DIN 471 and BS3673
- Supplied in compartmented storage box, complete with a layout sheet giving dimensional information
- Kit 1: shaft diameters: 2.25 – 12mm, 4 – 16mm, 8 – 12mm
- Kit 2: shaft diameters: 13 – 20mm, 14 – 25mm



- 278-360** Kit 1 890-pieces
- 278-376** Kit 2 450-pieces

**Stainless Steel Spring Kits**

- Kit Contents:
- Compression: Length: 14 mm to 66 mm, Depth: 2.32 mm to 13.75 mm,
- Extension: Length: 18.3 mm to 76.2 mm, Depth: 3.5 mm to 12 mm,
- Torsion: Length: 31.75 mm to 45 mm, Depth: 7.5 mm to 11.05 mm



- 684-406** 225 Springs

**Stainless Steel Self Locking Nuts Box**

- Self-locking type nut
- Thread sizes of M3, M4, M5, M6, M8, M10, and M12
- A4 (316) corrosion-resistant stainless steel material
- Plain silver-coloured finish
- Supplied in a polypropylene compartment storage box
- Meets DIN (Deutsches Institut für Normung, or the German organization for standardization) 985 (self-locking nut standards) specification



- 200-9807** 545 Pieces
- 200-9788** 1020 Pieces

**1200-Piece Steel Self Tapping Screw Kit**

- BZP steel slotted & cross recess pan head screw kit
- Kit contains 1200 self-tapping screws, in sizes No. 4, 6, 8 & 10, supplied in a moulded plastic storage case



- 546-3478**

**Stainless Steel Plain Washers**

- From the trusted RS PRO Brand, these stainless steel washers are generally used with a machine threaded fastener and nut to spread the load over a greater surface area when tightening a bolt, screw or nut
- As they are made of stainless steel, they have an element of corrosion resistance and are suitable for use in many environments.



- 797-6070** M12, A2 304



**Xtract™**

Clean Sanding Solutions

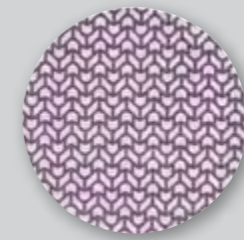
Go for performance.

**Leave the dust behind.**

**3M Xtract™ Cubitron™ II Net Disc 710W**

The new 3M Xtract™ Net Disc eliminates the trade-off between dust extraction and disc performance, improving productivity and offering a virtually dust-free sanding process.

- ▶ Up to 99% dust extraction for a virtually dust-free work environment
- ▶ Featuring the exclusive 3M Precision-Shaped Grain technology
- ▶ Designed for the metalworking industry to help you deliver excellent finish each time
- ▶ Available in grades ranging from 80+ to 320+



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**The ultimate sanding system**

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**Soldering Station**

- ESD safe
- °C and °F switching, convenient for operators
- Heating element malfunction alert
- Low-voltage heater separated from power supply to keep soldering work safer
- Replaceable heating element and soldering tip, reducing consumable replacement cost
- Split design, easy to place



- 236-3538** 60W, 240V ac

**Bench Grinder Stand**

- RS Pro drill grinding attachment is an economical way to grind drills
- It has drill bit capacity of 1/8 to 3/4 Inch and can be used with any bench grinder 6 Inch or over
- It operates on the side of grinding wheels
- 1/8 to 3/4 Inch drill bit capacity
- 6 Inch minimum bench grinder
- Sharpens drill bits to original profile



- 389-0777** 60W, 240V ac

**Heavy Duty Cobalt Jobber Drill**

- An industrial quality for drilling materials that have high hardness and tensile strength such as cast iron, bronze, hardened steel & stainless steel.
- 135° split point (drills > 2mm & 3/32) enables accurate positioning and less drilling pressure
- Thick core for increased rigidity in hard materials
- Precision engineered parallel shank for accurate hole size



**suttontools**

- 204-3862** D1080700 - 7.0MM
- 204-3864** D1080850 - 8.5MM
- 204-3847** D1081000 - 10.0M
- 204-3848** D1081300 - 13.0M



### Kraftform 300/7 Screwdriver Set Kraftform Plus Handles

- 6-piece screwdriver set with Kraftform Plus handle for comfortable ergonomic screwdriving, which avoids blisters and calluses
- Lasertip blades: the tip clings to the screw head and prevents it slipping out
- Contains: PZ 1, PZ 2, PH2; 4.0mm, 5.5mm and 6.5mm slotted and the iconic Wera bottle opener



224-5767

### Kraftform Kompakt 400

- T-handle screwdriver for the transmission of particularly high tightening and loosening moments and fatigue-free working.
- Rapidaptor technology for lightning-fast bit changes
- Contains: PH, PZ, TORX®, Hex-Plus and Z bits
- For full details visit our website



201-2198

### Kraftform Kompakt W 1 Maintenance

- Compact tool set with the 35 most important screwdriving tools for maintenance work in a robust case
- Includes VDE holder with 12 VDE blades; 1 JOKER double open-end wrench, 1/4" Zyklop speed ratchet and accessories; 8 manual and power tool sockets, 1 universal bit holder; 7 screwdriving bits; 1 screw gripper and a voltage tester
- For full details visit our website



123-1889

### Drill and Tap Set

- High performance taps and drills designed for use with most materials
- Featuring A002 drills with Titanium Nitride tip coating that minimises wear, increases tool life and allows increased performance and self-centring point for excellent positional accuracy
- Hand machine taps compliment the set in sizes M3, M4, M5, M6, M8, M10, M12



**DORMER**

787-8986

### Maintenance Tool Kit with Case

- An extremely comprehensive set that offers all the accessories you will ever need for making large holes, drilling and driving screws
- This kit ensures all your fasteners and fittings will be presented with a professional finish every time



**Makita**

458-1913 P-44046 - 216 Piece

### 3-Piece Plier Set

- Professional plier set with non-slip ergonomic handles and polished heads
- Set contains: 180mm combination pliers, 160mm diagonal pliers and 250mm Cobra waterpump pliers



**KNIPEX**

815-6344

### Screwdriver Set

- Includes flat (slotted), PH and PZ type screwdrivers
- TT-MV PLUS steel alloy for greater strength and material flexibility
- Ergonomically designed bi-material handle for easy use with higher torque and faster speed
- Hole in the handle for hanging or for use as a T handle for extra torque or with a fall protection wire if needed • The handle is moulded around the blade to ensure straightness and to allow larger blade wings which give a higher torque capacity



198-1852 11 Piece set

MD911N

### Socket Set

- 18 piece 3/4" drive metric 6 point socket set
- Includes a Teng Tools 72 teeth quick release, twist reverse ratchet together with extension bars and adaptors
- Includes all the most commonly used sizes from 19 to 50mm
- Regular 6 point single hexagon sockets for a better grip
- Teng Tools hip grip design for contact with the flat side of the fastening for reduced damage and use on rounded nuts and bolts



198-2079 335x600x126mm

T3418-6

### Mini Screwdriver Set

- Double ended mini screwdriver set
- It includes fully interchangeable double ended blades including flat (slotted), PH, PZ and TX blades. It has rotating end piece for easier use when "transporting" the fastening.
- Sizes clearly marked on the shaft
- Hexagon shaft
- Twist grip tightening function allows the blade to be set at different lengths, ideal for where access is restricted



198-1860 8 Pieces

TM708

### Pry Bar Set

- Includes 3 roll/heel bars in three sizes to suit different applications
- Supplied in the unique Teng Tools drawer width TTX tray
- Use on it's own or as part of the Teng Tools "Get Organised" system



222-2994 12", 16", 20" pry bars

TTXPB3

### Adjustable Wrench

- Integral measurement scale on the jaw to check fastening sizes
- Wider jaw opening increases the bolt sizes that can be worked on
- Moving jaw does not protrude allowing use in confined spaces
- Hole in the handle for tool securing when working at height



1981-685 18 inch

4007

1981-686 24 inch

4008

### Punch and Chisel Set

- Parallel pin punches, flat cold chisels and centre punches
- High carbon steel hardened to HRC42 and tempered strike ends (HRC40 +/-5) for use with a hammer
- Automatic centre punch with spring loaded stroke also included for marking points quickly



222-2970 14 piece set

TEDPC14

### Impact Driver Set

- Reversible action heavy duty impact driver for shifting stubborn fastenings
- 1/2" drive square drive for use with impact sockets and accessories
- Removable bit holder included for use with 5/16" hexagon drive impact bits
- Set includes 12 impact bits covering the most popular screw head sizes and types



198-1749 15 piece set

ID515



# MAKING AMAZING HAPPEN FOR A BETTER WORLD

**RS Group is at the heart of the global industrial sector. We provide products and service solutions that help our customers design, build, maintain, improve and protect their equipment and operations. Every day, we help our customers make amazing happen for a better world – from enabling innovative solutions to keeping businesses, critical industries and communities running.**

We are committed to being a strong and sustainable business and bringing our people, customers, suppliers and communities together to accelerate our positive impact. We are determined to leverage our global scale and innovative product and service solutions to advance sustainability and improve lives. By doing so, we know we can play a key role in helping to address some of the world's biggest challenges; from tackling climate change, to building engineering and innovation skills and championing diversity and inclusion.

To make this happen, we're introducing For a better world - our 2030 action plan to support a more sustainable and inclusive world. We've set four global goals by 2030 focused on:



**ADVANCING SUSTAINABILITY**



**CHAMPIONING EDUCATION AND INNOVATION**



**EMPOWERING OUR PEOPLE**



**DOING BUSINESS RESPONSIBLY**