# YAPLEX

CRANES

HANDLING

ENGINEERING













# WELCOME Yaplex Ltd Derty Road Business Park Clay Cross | Chesterfield S45 9AG

Formed in 2010, Yaplex Limited have become an industry leader in the design and manufacture of both standard and bespoke lifting / material handling solutions.

Our UK headquarters and manufacturing facility is based in Clay Cross, Chesterfield. Our production facility is accredited to ISO 9001 - Quality Management System. All equipment is manufactured to the highest standards using high tech production methods and state of the art machinery. Both quality and health and safety are our top priority. We employ a range of highly skilled and qualified engineers to implement your ultimate handling or lifting solution. By using our in-house design, project management, production and assembly technicians, we can design and develop solutions for even the most demanding applications. We specialise in providing bespoke turnkey solutions for assembly and manufacturing operations. Due to our skilled workforce and in-house facilities, we can also provide an array of bespoke engineering solutions to integrate perfectly with your lifting and handling equipment.

Using Yaplex as a single source supplier for your jigs, fixtures, racks, packaging and tooling can greatly reduce your project managements costs. Our impressive track record of delivering complex projects to various blue-chip, automotive, manufacturing and aerospace clients, makes choosing Yaplex the right decision. Our equipment can be viewed in our extensive showroom at our manufacturing facility in Clay Cross. We have several systems on display, including 'The Solution' zero gravity electric balancer, pneumatic manipulators and our budget range of Flexi lift assists. Please contact us to arrange a demonstration visit - our facility is open Monday to Friday 7.30 - 16.00. Alternatively, our team of Technical Sales Engineers are happy to visit your premises to view your application in detail, and recommend the ideal solution based around your exact requirements.











- Pneumatic & Electronic Manipulators
- Standard & Bespoke Lifting Solutions
- Jib Cranes & Overhead Cranes
- Custom Engineering Solutions
- Jig / Fixture Pallet Design
- Conveyors & Scissor Tables

Yaplex are your one stop shop for all your cranes, handling and engineering requirements

'Let us take the load...'



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# YAPLEX JIB CRANES







H section over braced and under-braced jib cranes up to 2T / 8m radius

Profile track (lightweight) over-braced jib cranes up to IT / 7m radius

Continuous 360-degree manual slew jib cranes up to 2T / 8m radius

Continuous 360-degree powered slewing jib cranes up to IOT / I0.5m radius

280-degree powered slewing jib cranes up to 2T / 8m radius

Aluminium jib cranes up to 500kg / 5m radius

Articulated jib cranes up to 1000kg / 7m radius

Double arm jib cranes up to IT / 7m radius

All jib cranes available as: column, wall or existing beam mounted

Several hoist options available - manual, electric chain / wire rope with push or powered travel

Column mounted jib cranes: floor mounting – foundation mounting or spreader plate



## YAPLEX

#### **OVERHEAD CRANES & GANTRIES**



Systems can be supplied freestanding, roof mounted or incorporated into existing structures

Overhead traveling cranes can be provided to handle loads up to 20T

Top running and underslung designs available

Single and double bridge rail designs - Spans up to 27m!

Huge range of wire rope and chain hoists available from any preferred supplier

Various options available such as collision avoidance, remote control and travel limits

Full installation, commissioning and load testing services available



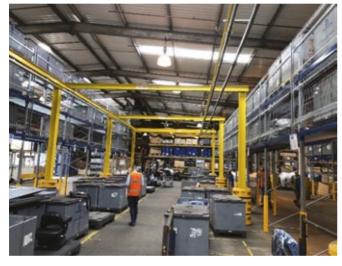
Top Running Overhead Crane



Underslung Overhead Crane

# YAPLEX LIGHTWEIGHT CRANES





Lightweight cranes or tracking systems can be supplied with capacities up to 2T. We have steel, aluminium and stainless steel tracking systems available to suit the exact needs of the application.

Systems can be supplied with freestanding steelwork or they can be supported from existing structures, including the existing building / roof.

We can supply systems at any length and the maximum bridge span is 9m. Heights are fully customisable. We can also supply multiple bridges running on the same steelwork, to cover multiple work areas / assembly cells.

Accompanying our tracking systems, we also provide overhead monorails / conveyors for applications such as paint lines.







# YAPLEX PORTABLE GANTRIES



An A Frame Gantry, otherwise commonly known as a portable gantry crane, is used for lifting loads in various areas.

Due to its stand-alone design, no fixed installation is required.

Systems can be provided to lift loads up to from 125kg - 5T with spans up to 8m! Bespoke A frame gantries can also be designed and manufactured to suit applications outside of this scope.

All portable gantries can be customised to your preference, including different heights, spans and lifting capabilities, depending on the needs of your application.

#### Lifting devices available:

- Manual chain block
- Electric chain hoist
- Pneumatic chain hoist
- Bespoke lifting system



#### Options:

- Castors
- Levelling feet
- Brakes
- Power travel



## YAPLEX

#### **VACUUM LIFTING ATTACHMENTS**



Yaplex supply a range of standard vacuum lifting beams for lifting sheets, glass, wood and concrete. We design and build all systems and attachments in house.

As we have our own team of dedicated 3D design engineers, we can produce bespoke vacuum attachments to suit the customers exact requirements.

Tools can be designed to lift, tilt and rotate to meet customer specification.

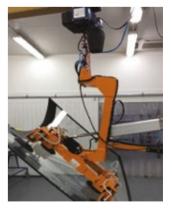
Most vacuum systems are either suspended from a crane or a forklift truck. We can provide systems to run using various energy sources. Mains options include: 415v (with low voltage control options), 240v and 110v. We also supply Venturi vacuum systems to run off compressed air. For handling any non-porous products, we can also offer battery operated units for ultimate flexibility.

Systems can be supplied with full failsafe operation to prevent accidental release in mid-air, or with 2 button control and audible alarms in the event of system malfunction or power failure.









# YAPLEX

# YAPLEX LIFTING EQUIPMENT SERVICES



#### Crane Maintenance and Servicing

Our team of field service engineers can undertake work on all makes and types of lifting equipment.

Routine servicing ensures your lifting equipment is in optimum condition and guarantees operator safety.



#### **LOLER Examinations**

Statutory examinations are required every 6 / 12 months. Yaplex offer a fully managed system with an on-line portal. This ensures compliance and makes document control easy.



#### Crane Removal and Installation

Our team of skilled installation engineers can remove, install, test and commission all types of cranes.

All site work is accompanied with a risk assessment and method statement.



#### **Operator Training**

We provide training on all types of lifting equipment. It can be delivered using our bespoke training courses. This means that we can customise our training programmes to suit the needs of you and your employees.



#### Crane Repairs and Modernisation.

Lifting equipment is often an integral part to many production processes and assembly operations. Yaplex engineers are here for your business when things go wrong.

We can offer maintenance and repair services for your overhead cranes, lifting equipment and lifting accessories.



#### **Load Testing**

Testing is done to verify the design of the crane structure and to check that all safety devices are working and set up. The entire structure is examined, and deflection checks are done. Our engineers can carry out on site load testing up to 20T SWL.

# YAPLEX SAPELEM SOLUTION



• Can be mounted to a transportable base plate

The Yaplex SAPELEM Solution is a truly Intelligent Lifting Device with a difference. This state of the art lifting device is best suited to high speed, repetitive lifting tasks where speed and precision are key. The system uses an ultra-sensitive handle to allow the operator to lift and lower loads using fingertip control. The full SWL can be lifted using just I gram of force on the handle! All end effectors / tooling are integrated into the handlers circuitry, ensuring operator safety at all times. The system has configurable inputs and outputs to interface with other production equipment where required. Other safety features include product detection, grip ok sensors and weight detection. The load cannot be released until the load is removed from the system, guaranteeing operator safety. Password protection also prevents untrained users from using system.

#### Special features are also available:

- Virtual window & meet point allows the system to stop at a predetermined point (useful for loading items into a lathe chuck)
- Full balance / float mode option allows direct load handling
- Pendant control allows the use of buttons for up / down movements
- Configurable operator settings (including change of language, speed etc)
- Automatic grip and release
- IP rated control panels
- Stainless / food grade systems available
- 360 degree continuous rotate (prevents cable tangling)



## The Most Advanced Handling System On the Market









The system can be column mounted, overhead rail mounted or overhead mounted on a trolley for movement on an X-Y Gantry. Articulated arms with Radius from 2500mm to 4700mm are available. The patented arm design comes in two configurations, single and double articulated. Both versions feature no dead area around the column and offer unrivalled ergonomics.









This handling system can come complete with a safety hook, suitable for basic tool attachments, or custom designed end effectors / tooling can be designed to suit customer requirements. We can design bespoke attachments to suit the exact needs of the application. This includes mechanical clamps, pneumatic clamps, vacuum heads, and magnets. All lifting devices can be designed to include, tilting, rotation and inclination to allow full manipulation of the product.









# YAPLEX **FLEXI**



The Yaplex Flexi is ideal for any pick and place lifting operations. With lifting speeds of up to 30 metres per minute, it can keep up with even the most demanding applications. The standard system is supplied with a safety lifting hook for basic lifting attachments. It is available in two versions, pneumatic (P) or electric (E). Both versions feature single hand operation with variable speed control. It offers minimum speeds of 0.15 m/min, allowing operators to precisely position components. The lift and lower controls are operated by thumb throttles, providing intuitive operation and ease of use for both right and left-handed operators.



Yaplex can supply custom designed end effectors / tooling to suit customer requirements. This includes mechanical clamps, pneumatic clamps, vacuum heads, and magnets.

All lifting devices can be designed to include, tilting, rotation and inclination to allow full manipulation of the product.

- Low cost, versatile and safe
- Fast and intuitive operation
- Accommodates any type of end effector / gripper / tool
- Available in both Electric Standard (DCM) and High Speed (DCMS) or Pneumatic (RR) versions
- The pneumatic version can be ATEX rated for use in explosive atmospheres
- Various load sizes available up to 1000kgs
- Available with continuous 360 degree rotate
- Comes with either in-line controls or pendant control
- Working radius up to 7000mm

## Yaplex Flexi

# Budget range of Mini Manipulators









Standard mounting options include, column (floor mounted or ceiling mounted), or rails for covering large areas (X-Y tracking). Column mounted systems can also be supplied with a mobile base plate for easy transportation to different areas. Telescopic / height adjustable columns can also be provided for going through doorways.









Standard systems are supplied with a safety hook suitable for basic tool attachments. Yaplex are specialists in the design and manufacture of dedicated tooling. We have the experience to develop a solution your operators will enjoy using while reducing repetitive strain injuries and increasing productivity levels.









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# YAPLEX BALANCE ARM



#### Accurate, True Balance, Versatile and Safe

If you are looking for a solution which will allow you to lift heavy eccentric / offset loads without the risk of injury, a Pneumatic Manipulator is the ideal handling system for you. They operate using air pressure and allow operators to move loads weightlessly and with minimum effort.

Due to the pneumatic balancer circuitry, they simply float up and down using gentle hand pressure. This manipulator can be column mounted or overhead mounted onto a tracking system for covering large areas.





Pneumatic Manipulators are great for lifting, tilting and rotating products. They are suitable for use in a wide range of different industries, including Automotive, Manufacturing, Construction, Aerospace and warehouses of all kinds. If you operate in any industry where lifting is required, you could benefit from one of our industrial manipulators.

- Auto weight sense pneumatic control circuit allows handling of various weights without the need to adjust settings
- Allows for greater accuracy and access to hard to reach areas such as reaching into machines
- Standard and special solutions available to lift weights of up to 1500kg with up to 5m radius available
- Pneumatic brakes fitted to all rotating axis
- Powered drive systems available for overhead mounted systems (power and free operation)



## Column or Overhead Mounted

## Low Headroom Option







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Systems are available with single or double articulated arms. They can be overhead or floor mounted. Systems can be designed with an offset / reach-in capability of up to 3000mm.







All Balance Arm systems are designed to suit the application and the needs of the customer. This includes mechanical damps, pneumatic clamps, vacuum heads, and magnets. All systems can be designed to incorporate, tilting, rotation and inclination to allow full manipulation of the product. Low Headroom versions can be supplied mounted on transportable base plates for use in multiple areas.









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#### YAPLEX

#### **VERTICAL BALANCER**



#### Accurate, Flexible, Compact and Safe

Our Vertical Balancer is a revolutionary Industrial Manipulator for use with offset or acentric loads. It can be supplied column mounted on a jib arm, an articulated arm, or overhead mounted onto a X-Y tracking system.

It is ideal for situations where goods or products are too heavy to manoeuvre by hand, and where a crane would be too slow, or not precise enough. Because of the rigid lifting mast, it allows loads to be offset by as much as 1000mm.

This makes it a perfect handling system for all assembly processes, machine loading, press loading and oven loading. It can be supplied with ATEX certification if required. This industrial manipulator is easy to use and improves ergonomics, along with workplace health and safety.

Standard pneumatic circuits give auto weight sense allowing movement via gentle hand pressure up or down(float mode).

Other circuits can be supplied giving power up and down or combined crane and balance.

All our systems are 100% failsafe and will never release the load in mid-air even in the event of air loss.

- Pneumatic or electric operation with full auto weight sense
- Can be supplied with quick change tool adaptors
- Handles loads of up to 1000kgs
- Available with continuous 360 degree rotate
- Ergonomic controls for operator comfort
- Arms available with radius up to 4m or Overhead tracking system
- Available with an offset / reach in capability of up to 1000mm.







# Column or Overhead Gantry Mounted



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Systems are available with single or double articulated arms. They can be overhead mounted to rails, or column mounted to the floor:





Depending on the component to be lifted, our expert team can design bespoke pneumatic clamping systems, magnets, vacuum attachments and mechanical grippers to suit your application. All systems can be designed to incorporate, tilting, rotation and inclination to allow full manipulation of the product.









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# YAPLEX **Mobi**



#### Easy to Move, Reliable and Compact

The MOBI is a useful piece of material handling equipment for lifting loads that need to be transported around a factory, warehouse or stores. It works using a wheeled transportable base and an electric lifting mast to offer a simple and adaptable lifting solution. Depending on which type of lifting trolley you opt for, they can be used to lift and transport loads weighing up to 300kg. We have a standard range of both counterbalanced lifting trolleys and fixed arm lifting trolleys, which can both be customised to suit any application. Bespoke material handling trolleys can be designed and manufactured for when a standard solution isn't suitable.





- Various load configurations available up to 300kg
- Manual wind up or powered lifting mast options are available
- Various lifting heights available up to 3m
- Standard lifting forks, hooks or platforms can be provided as standard solutions
- Custom designed attachments can be supplied for lifting boxes, drums, reels etc
- Fixed arm and counterbalance versions available as standard
- Counterbalance systems available with up to Im reach
- Special folding / telescopic systems can be supplied to fit through standard doorways
- Systems are configurable with different types of wheels, brakes, overload protection, fast charge etc
- Operator safety is ensured by features such as: top & bottom limit switches, and overload protection



# YAPLEX **DUCTO**



Ducto is the innovative vacuum tube lifting solution designed by Yaplex. Its simple design allows gripping, lifting, lowering and releasing via one simple hand control. It is best suited to high speed, repetitive lifting tasks such as:

Boxes Sacks Baggage Boards Sheets

Reels Doors Glass Concrete

The Ducto is available in various standard lifting capabilities to lift loads from 50kg up to 300kg. The Ducto can be suspended in almost any configuration to suit the application. The most common configurations are jib crane mounted (as pictured above) or mounted to a lightweight X-Y tracking system.









# YAPLEX CONVEYORS



Yaplex manufacture industrial conveyors to customer requirements. Any size or weight range can be supplied with straight and curved track sections or drop sections for work at different heights. Conveyor systems can be supplied to integrate with other handling processes if required.

We supply mild steel plated, rubber coated as well as stainless steel roller systems for food processing. Yaplex conveyor systems are cost effective, high quality and robust. They are extremely low maintenance and can be supplied with a wide range of auxilliary interfaces for loading and offloading such as cranes, manipulators, Powered trolleys, AGV's etc.

ABOVE: Multi stage access 4 mtr high special conveyor with fork truck pallet gate and side support rollers.

Yaplex design and supply complete turnkey packages.

From Goods Inward onto Assembly then Despatch, we can supply everything you need. We specialise in full PLC control systems and are able to build and design systems for literally any application.

#### RIGHT:

Fully automated elevating 9 station powered production line conveyor. Designed to carry a I tonne load through 9 work-stations at different heights. Indexing on and preset heights were all fully automated and PLC controlled.





# YAPLEX

## YAPLEX

## **BOOST SCISSOR TABLE**





Yaplex manufacture a range of scissor lift tables and trolleys known as 'Boost'. The Boost range consists of transportable and fixed lifting tables to lift loads from 0 - 6000kg.

Transportable trolleys are a low-cost solution used to manoeuvre loads throughout the workplace and typically lift loads up to 1000kg up to 2m high. Fixed versions feature larger capacities and greater lifting heights.

Both versions can be supplied with the following options:

- Manual lift / lower
- Powered lift / lower with built in battery pack
- Top and bottom limits
- Remote control operation / fixed control station
- Safety strips to lower platform edge
- Anti-burst valves on all hydraulic rams
- Mechanical lock off positions

# YAPLEX MANUFACTURE SERVICES



General Welding and Fabrication

Large fabrications up to 5T can be handled. We can complete Mig, stick and Tig welding of mild steel, stainless and aluminium.



Manual Machining

Turning, milling, slotting, horizontal boring, grinding and drilling services available to produce parts accurately to drawings.



CNC Machining with CAD CAM

State of the art 4 axis machine centres and CNC lathes are available to produce batch parts.



Prototyping

We have the ability to mock-up prototypes for customer approval. This allows us to prove concepts prior to full manufacture.



Steelwork Design and Manufacture

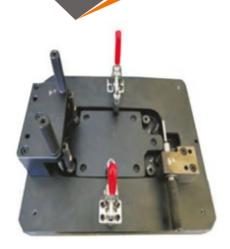
Using our CAD team, we can design steelwork and steel structures for any purpose, including FEA analysis, technical file and CE marking.



2D and 3D Design

We are not just limited to lifting equipment. Our vast experience allows us to design and manufacture almost anything.

# JIGS, FIXTURES & TROLLEYS





#### Custom Designed, Engineered Solutions

Yaplex design and manufacture, Jigs, Fixtures and Trolleys for numerous purposes. We have our own team of dedicated 3D design engineers and our workshops are fully equipped with up to date CNC machining capability. By using Yaplex to design your jigs / fixtures, you can be sure your lifting equipment will integrate with them seamlessly, and reduce your overall project management costs.

Kitting trolleys can be built for most production line side applications. They are a great mobile storage solution for a multitude of items and help implement LEAN practices.

Trolleys can be manufactured in any shape or size and can be designed for any weight. Full manuals and detailed drawings are also provided.

- · Lightweight and heavy-duty aluminium kitting trolleys
- Heavy duty steel jigs and fixtures 3D designed to customer requirements
- Raise and lower features available with adjustable positioning
- Transportable or fixed Ergonomic handles etc for operator comfort
- Food grade / stainless steel systems also available.







#### **WORK PLATFORMS**

#### & MEZZANINE FLOORS



Work platforms are essential to operator safety when working at height. If your processes involve employees working at height, you will benefit from our specially manufactured and custom structures.

We can design everything from small elevated platforms up to large, complex aircraft maintenance platforms.

We can also design and install mezzanine floors which are ideal for gaining space in industrial and warehouse environments.

Our engineers can design a mezzanine that fits your space, considering, size, span, height and load requirements.

All mezzanines are built to industry standards and any applicable regulatory requirements.

Our custom approach to manufacturing ensures all mezzanines and platforms will suit your exact needs.

Designs can include stairs, landings, handrails, gates and even goods lifts.





#### SPECIAL PURPOSE

#### **MACHINES & AUTOMATION**



Above: Robot Assembly Cell



Above: Pressure Test Machine



Above: Pick and Place Machine



Above: Bespoke Folding Lift System

Our experience in bespoke design and manufacture allows us to create turnkey solutions for a wide range of industries and processes.

Our in-house design team uses both 2D and 3D design formats to produce detailed engineering drawings.

All our electrical / software engineers are proficient in programming all common PLC's and can provide full circuit design and build services.

Yaplex also benefits from a skilled assembly and commissioning team consisting of electrical, mechanical and software engineers.

All of this allows us to provide solutions such as: inspection and test machines, automated handling systems, conveyor systems, automated production equipment and industrial control systems.



Above: Electrical Panel Example



- Pneumatic manipulators
- Industrial manipulators
- Pneumatic balancers
- High speed lift assists
- Vacuum tube lifters
- Mobile trolley lifters

- Conveyors
- Scissor tables / trolleys
- Special purpose machinery
- Jib cranes
- Overhead cranes
- Lightweight cranes

- A frames / portable gantries
- Vacuum crane attachments
- Lifting equipment servicing
- Work platforms & mezzanines
- Jigs and fixtures
- Automation



9

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