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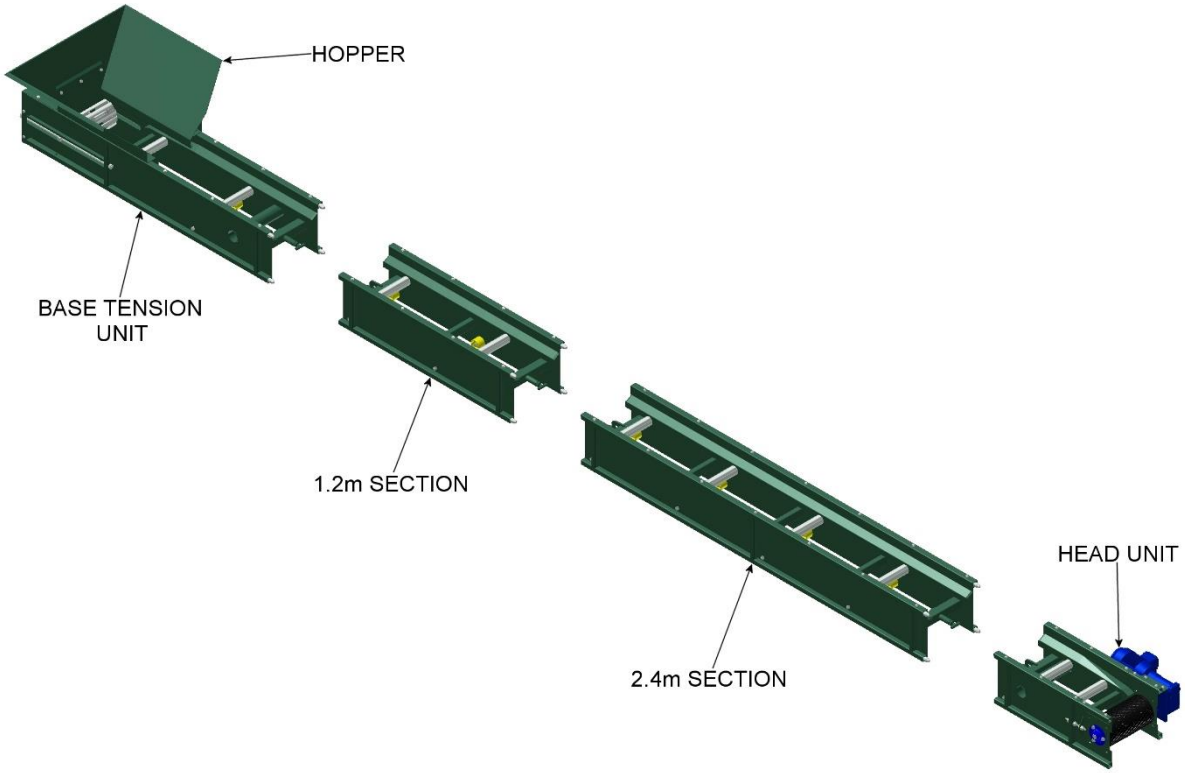
EASIKIT

300

INSTRUCTION MANUAL

EASIKIT 300



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EASIKIT 300

MODULAR BELT CONVEYOR

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INTRODUCTION

This product is designed to provide years of reliable service throughout its working life.

The unique design of the **Easikit®** conveyor system is the result of 30 years of research and hands-on experience in the conveyor industry. In depth experience, attention to detail, a commitment to quality and excellent service are the foundations that have built a first-rate reputation and provided complete customer satisfaction.

Please take time to read this Instruction Manual; it will guide you step by step through installation to ensure you get the maximum performance from your conveyor.

This manual covers installation, parts required, maintenance, CE conformity and warranty conditions.

We, the manufacturers want you to achieve a high level of satisfaction with your **Easikit® Conveyor System**. If you have any comments or queries, please do not hesitate to contact us.

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1. SAFETY INSTRUCTIONS

To use this equipment properly, you must observe the safety regulations, the assembly instructions and the operating instructions to be found in this manual. All persons who use and service the equipment have to be acquainted with this manual and must be informed about any potential hazards. Children and frail people must not use the equipment. Children should be supervised at all times if they are in the area in which the equipment is being used.

It is also imperative that you observe the accident prevention regulations in force in your area. The same applies for general rules of occupational health and safety.

The manufacturer shall not be liable for any changes made to the equipment or for any damage resulting from such changes.

Caution:

1.1. Read all instructions. Failure to follow instructions listed below may result in electric shock, fire and/or serious injury. Always isolate from electrical supply before carrying out maintenance, including changing the belt.

1.2. Do not attempt to assemble the conveyor in high winds

1.3. Prior to assembling your conveyor check components against parts list to ensure that there are no shortages, the assembly should not commence unless all items are present.

2. ENVIRONMENTAL PROTECTION

Recycle unwanted materials instead of disposing them as waste. All parts and packaging should be sorted, taken to the local recycling centre and disposed of in an environmentally safe way.

3. CONFORMITY

Easikit conforms to relevant safety standards in the country in the EU where the product is purchased. The machinery, taking into account the state of art, complies with, or is designed and constructed so far as it is possible to comply with, the relevant health and safety regulations.

4. TOOLS / PPE / PARTS & PACKING LIST

4.1 Tools and Equipment Required

- Phillips screwdriver
- Adjustable spanner
- Podium steps
- Tape measure
- Large set square
- Offset wrench or socket set
- 19mm spanners and sockets
- Temporary support frames/trestles

4.2 Recommended PPE

- Hard hat
- Gloves
- Goggles
- Safety footwear

4.3 Parts & Packing List

- Supplied separately

5. LIFTING & SUPPORTING

5.1 Manual Handling

- Individual sections should be handled by at least 2 people
- Sections & components over 50kgs will require mechanical handling

WARNING!

OBSERVE CORRECT LIFTING PROCEDURES AT ALL TIMES.
MIND YOUR BACK - THESE SECTIONS ARE HEAVY!

FAMILIARISE YOURSELF WITH THE WEIGHT OF EACH SECTION

Sections	Length	Width	Height	Weight
Head Unit without Motor	800mm	540mm	315mm	40kg
Head Unit with 1.5kW Motor	800mm	630mm	315mm	66kg
Base Tension Unit	1790mm	400mm	320mm	70kg
1.2m Section	1250mm	390mm	315mm	36kg
2.4m Section	2450mm	390mm	315mm	72kg
Small Steel Hopper	825mm	830mm	330mm	22kg

5.2 Mechanical Handling

- Conveyors up to 4.9m long should be lifted into place with nylon straps to poles inserted through the holes on the head and base tension units. Conveyors over 4.9m long should be lifted with at least six (6) nylon straps.

WARNING!

ENSURE THAT YOUR CONVEYOR IS CORRECTLY AND SAFELY LIFTED AT ALL TIMES.

ENSURE THAT NOBODY IS UNDERNEATH THE CONVEYOR WHEN IT IS BEING LIFTED

5.3 Supporting in Temporary Installations

- Recommended support method for a temporary installation is scaffolding/temporary support trestles which should be erected by a qualified person whilst the conveyor is being assembled.

WARNING!

ENSURE THAT THE CONVEYOR IS SUPPORTED SATISFACTORILY AT REGULAR INTERVALS DURING ASSEMBLY – (max 4m)
AS IT WILL BE TOO HEAVY TO MANUALLY LIFT ONTO SUPPORTS WHEN COMPLETE

5.4 Helpful Hints

- The more supports there are used during assembly of your conveyor the easier it will be to assemble.
- Once your conveyor is fully assembled and operational you will find it beneficial to ensure that there is a minimum gap of 100mm between any part of the conveyor and the floor as this will help prevent material jamming on the returning belt.

6. ASSEMBLY

6.1 ASSEMBLY PROCEDURE

Your conveyor has been delivered to you on pallets. (Unless supplied ready assembled)

After opening the pallet you will have all the parts required to complete your conveyor assembly.

Before you start.....read through instructions carefully and check that all the items listed on your Parts & Packing list have been supplied. If any items are missing, contact your supplier immediately prior to assembly.

You will need assistance.....you will find that assistance of at least two other people, and appropriate mechanical handling equipment, will speed the job and make assembly easier and safer.

Selecting your site…….choose an area that is firm, level, and capable of supporting the weight of the conveyor and product to be conveyed on the belt. In addition the base should be suitable to facilitate secure anchoring of the conveyor feet.

You will require unrestricted access to all edges of the conveyor.

WARNING!

Conveyor stands must be anchored securely at the feet to a stable base. Building anchors are not supplied as part of the kit and should be purchased separately

6.2 ASSEMBLY INSTRUCTIONS

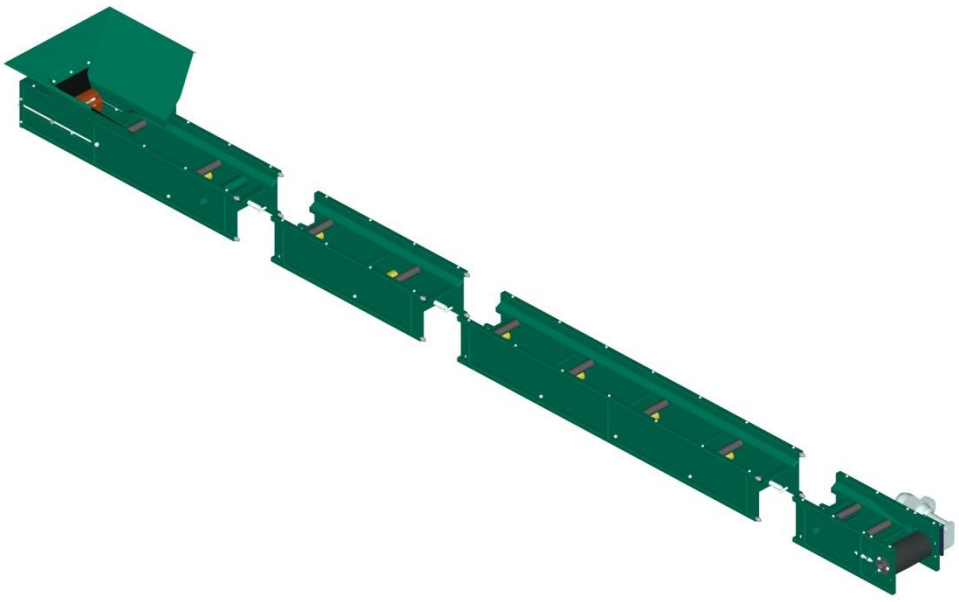
WARNING!

Ensure that the conveyor is correctly supported throughout the entire assembly procedure

The instructions provided below are given as the recommended method of assembly using scaffolding/temporary supports.

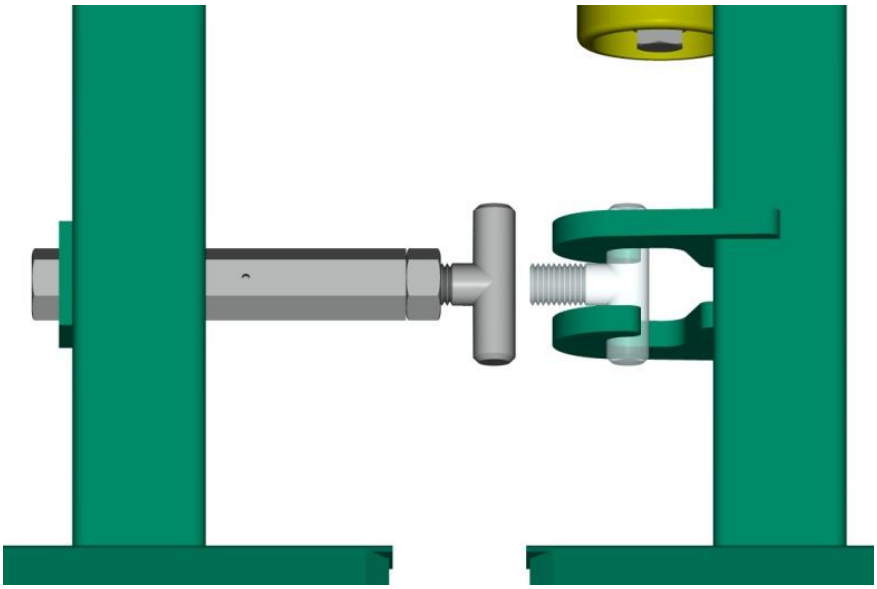
1. Position Base Tension Unit (without hopper attached) onto a flat surface or on temporary supports in approximate area of where the conveyor will be finally positioned

2. Offer up intermediate sections (1.2m or 2.4m sections) in line with Base Tension Unit as required lining up connecting lugs with holes in opposite section. (If your conveyor includes a 1.2m section in its modular length, this should be installed first nearest to the Base Tension Unit.)



3. Push the sections together simply locating the four corner connecting lugs into corresponding holes.

4. Adjust T bolt toggle by means of a 24mm spanner until it is located onto the hooks and then tighten back until sections are firmly together.



5. Continue adding intermediate sections as described in 2, 3 and 4 above, until the desired length of your conveyor is achieved.

6. Couple Head Unit to the last intermediate section as described in 2, 3 and 4 above.

Note: Do not fit the hopper at this stage

Note: You will find it more advantageous to fit the belt next, prior to fitting the motor and gearbox

6.3 RETURN ROLLERS

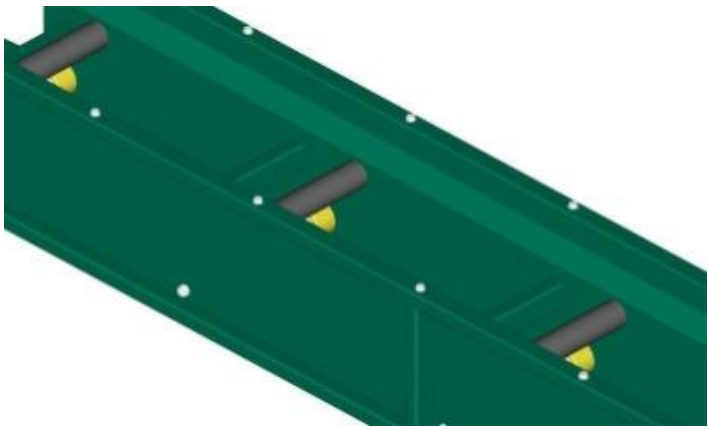
RETURN WHEELS

Easikit 300 conveyors are supplied with 63mm diameter return wheels at 600mm centres as standard and can be used with plain or cleated belt. These are fitted by means of nut and bolt fixings in pre-drilled holes in the sections.

6.4 IDLERS

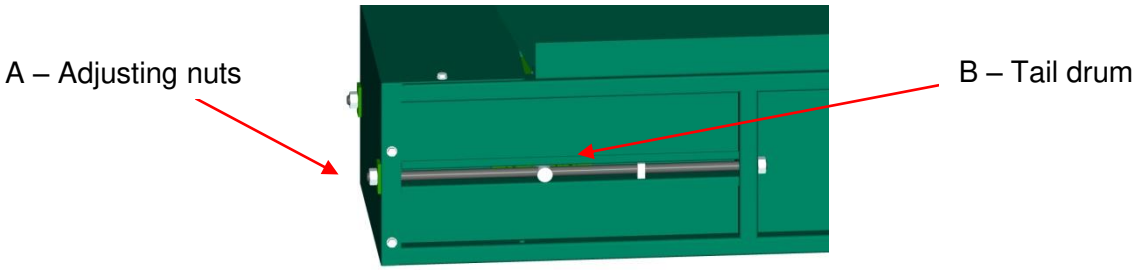
IDLERS

Easikit 300 conveyors are supplied with 50mm diameter top rollers at 600mm centres as standard.

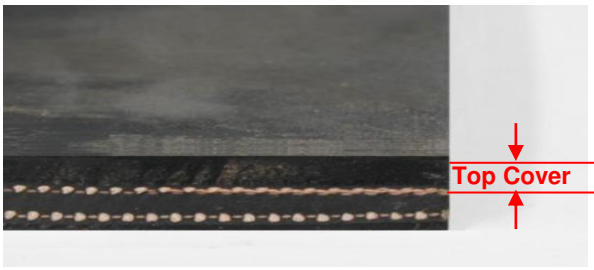


6.5 FITTING BELT - CLIP JOINT

1. Ensure that the drum on Base Tension Unit is as far forward (towards motor end) as possible, unwind the Adjusting Nuts (A) repeating on the opposite side. This will slide the tail drum (B) along the conveyor. Continue until drum is as far forward as possible to provide the minimum belt length position.

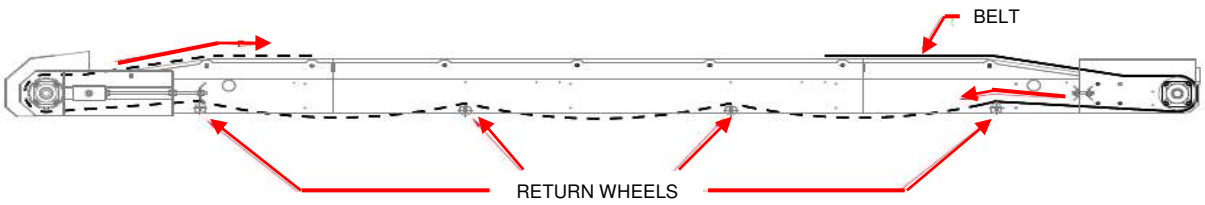


1. Ensure that the belt is the correct way up. Your belt is constructed with several layers of rubber and fabric ply. It is important that the thickest ply is facing upwards as this is the wearing surface.



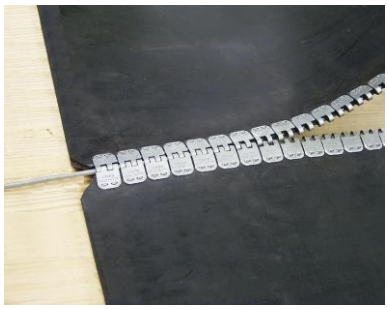
2. Feed one end of the belt into the conveyor frame over the return wheels at one end of the conveyor, ensuring that the belt is the correct way up with the wear surface facing downwards and running on the return wheels.

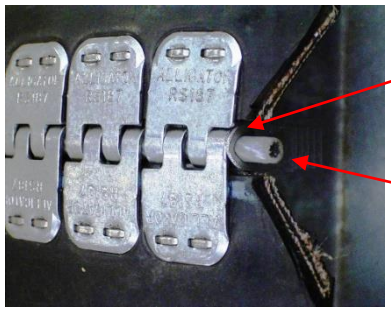
3. Pull belt over the top of the return wheels down towards the opposite end of the conveyor.



4. Pull belt around the head and tail drums and onto the top of the conveyor over the top rollers to meet the opposite end of the belt.

5. Interlock belt fasteners and insert hinge pin. Clamp the washers either end, to prevent hinge pin movement. Ensure that the ends of the hinge pin are within the width of the conveyor belt. This may need to be cut if needed.



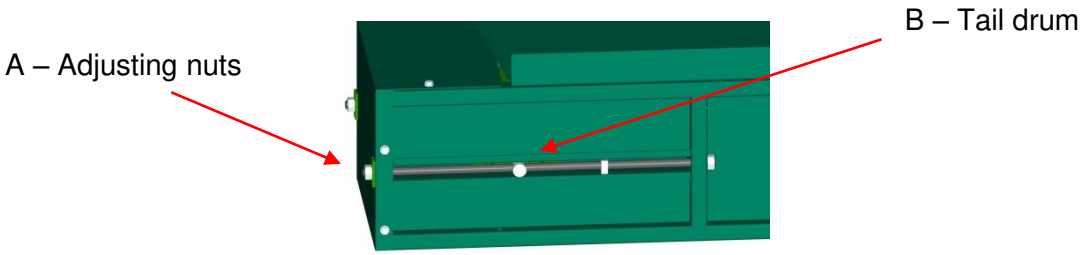


6. Make sure belt is lined up in the centre of head and tail drums. The belt should now be tensioned following the tensioning procedure as described in section 6.10.

6.6 FITTING BELT – VULCANISED JOINT

In normal circumstances it is more advantageous to fit the belt as above and vulcanise the belt joint when the conveyor is ready assembled. However, if this is not possible, the instructions below are a guide to fitting a pre-vulcanised endless belt to your conveyor after the sections have been fitted together.

1. Ensure that the drum on Base Tension Unit is as far forward (towards motor end) as possible, unwind the Adjusting Nuts (A) repeating on the opposite side. This will slide the tail drum (B) along the conveyor. Continue until drum is as far forward as possible to provide the minimum belt length position.



2. Remove the tail drum guard on base tension unit. (Code no 30057 on EK300 Base Tension Unit exploded drawing –see page 27). This can be removed using two open ended spanners.

3. Roll out belt to its full length alongside of the assembled conveyor.

4. Lift one end of the belt up and loop over the tail drum of the base tension unit. This should be carried out with a minimum of two people.

5. Mechanically lift one side of the conveyor to enable the belt to be fed through under the conveyor frame and over the temporary support trestles.

6. Loop the other end of the belt over the head unit drum.

   Useful hint:
   In some instances where access is tight or difficult, it may be advantageous to dismantle and remove the head drum from the Head Drive Unit. This can be achieved by simply removing one drive drum mounting plate (code 30059A/B on EK300 Head Unit exploded drawing on page 27). The drive shaft grub screws in the bearing will need to be released on both sides and the drum removed from the head unit. Once the belt has been positioned in place, the drum can be reassembled into the head unit in reverse procedure of removal. It is important to ensure that the drum is repositioned centrally and the grub screws are tightened securely.

7. Ensure that the belt is centrally positioned on the head and tail drums and along the length of conveyor both top and underside.

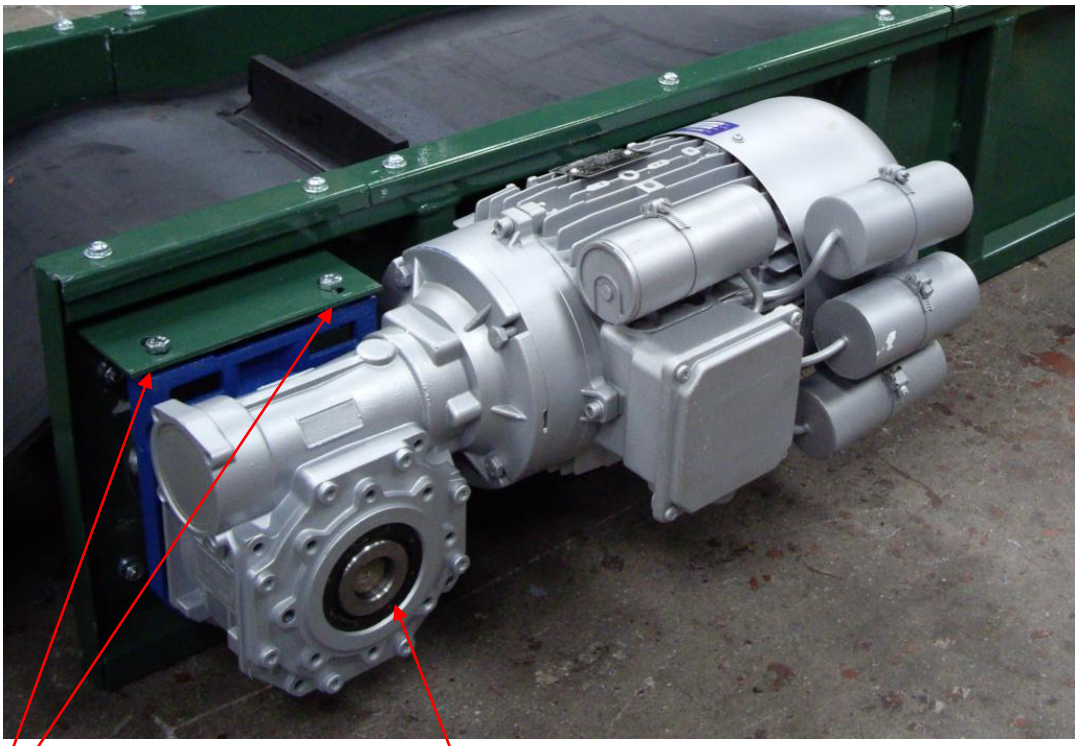
8. Replace the tail drum guard in reverse procedure to how it was removed using two open ended spanners to re-tighten the fixings.

9. The belt should now be tensioned following the tensioning procedure as described in section 6.10.

6.7 FITTING MOTOR & GEARBOX

The motor can be fitted to the conveyor at this stage.

Ensure that the drive shaft is clean and lubricated with a ‘copper slip’ type lubricant prior to fitting the motor. It is recommended to first loosely position the motor mounting bracket to the gearbox and then align the motor onto the drive shaft prior to bolting onto the mounting bracket. (N.B. The motor body should be parallel to the conveyor, do not mount it vertical). Carefully align fixing holes and secure and tighten evenly.



Bolt gearbox onto mounting bracket

Align the motor onto the drive shaft and bolt onto the mounting bracket

6.8 FITTING EASIKIT SUPPORT STANDS

There are two models of Easikit support stands available – either Heavy Duty or Medium Duty. Both are manufactured and constructed on the same design and are adjustable.

It is essential that all conveyors are adequately supported underneath feed points.

For both types of stands, it will be necessary to use mechanical means of handling whilst fitting the stands (see Section 5 – Lifting & Supporting).

Normally stands are supplied assembled and will just require fitting under the conveyor on-site. However the first part of these instructions allows for assembling the individual stand components if these have been supplied loose.

SUPPORT STAND COMPONENTS

	Part No
HD Stand 1 Foot	
Inner	500935
Outer	500936

HD Stand 1 Foot Base	
MD	30166A
HD	

Brace Fixing Bracket	
MD	500230
HD	

Adjustable Foot	
MD	500236
HD	500225

Smiley Bracket	
MD	500239
HD	30163C

	Part No
Base Plate	
MD	500235
HD	500224

Joiner	
MD	500234
HD	500223

Brace Outer	
MD	500228
HD	

Brace Inner	
MD	500229
HD	

Cross Brace – MD Stand 1		
Conveyor Type	**Part No.**	**Plate Width**
EK300	500972	347mm

Cross Brace – HD Stand 1		
Conveyor Type	**Part No.**	**Plate Width**
EK300	500655	304mm

Cross Brace – Stand 2 - 7		
Conveyor Type	**Part No.**	**Plate Width**
EK300	500654	347mm

Inner Leg		
	Part No.	**Size**
MD	500571	60 x 40 x 600mm
HD	500569	93 x 93 x 600mm
MD	500233	60 x 40 x 1200mm
HD	500222	93 x 93 x 1200mm

Outer Leg		
	Part No.	**Size**
MD	500572	67 x 47 x 515mm
HD	500570	100 x 100 x 515mm
MD	500231	67 x 47 x 1200mm
HD	500222	100 x 100 x 1200mm
MD	500232	67 x 47 x 2400mm
HD	500221	100 x 100 x 2400mm

In addition to the above components each stand includes the following fixings complete with relevant washers and nylock nuts: -

- M8 x 85mm Bolts
- M10 x 25mm Coach Bolt
- M12 x 30mm Bolts
- M12 x 100mm Bolts (MD)
- M12 x 130mm Bolts (HD)
- M16 Nuts (MD)
- M30 Nuts (HD)

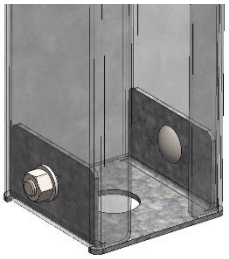
Each stand is supplied with a complete list of components to enable the stand to be assembled. Check that you have the correct parts against the packing list before proceeding.

ASSEMBLY INSTRUCTIONS

STEP 1

Fit Base Plate to Inner Leg

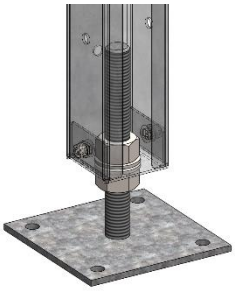
Fixings: M10 x 25 mm Coach Bolt



STEP 2

Fit Adjustable Foot to Base Plate

Fixings: M16 Nut (MD)
M30 Nut (HD)



STEP 3

Attach Smiley Bracket to the bottom of the conveyor & attach the Outer Leg

Fixings: M12 x 30 mm

STEP 4

If required, fit Joiner into leg

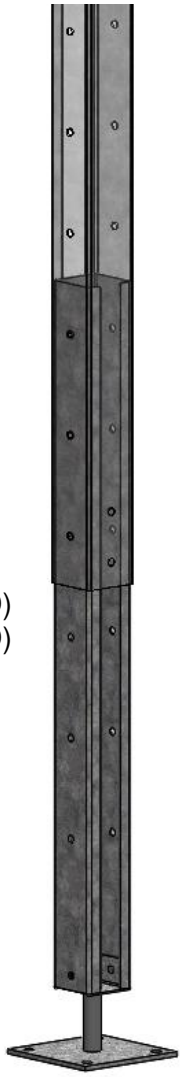
Fixings: M12 x 100 mm (MD)
M12 x 130 mm (HD)

Attach additional Outer Legs as required

STEP 5

Fit Inner Leg to bottom of support

Fixings: M12 x 100 mm (MD)
M12 x 130 mm (HD)



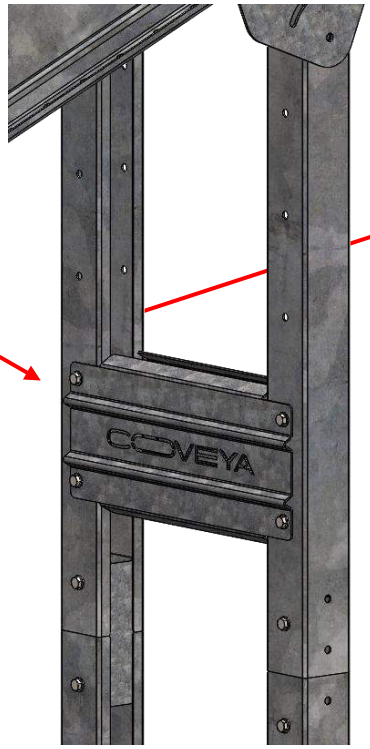
STEP 6

Repeat for other side so supports look like this:

STEP 7

Fit Cross Braces, one either side of Outer Leg

Fixings: M12 x 30 mm



If Inner Leg covers the gap then use

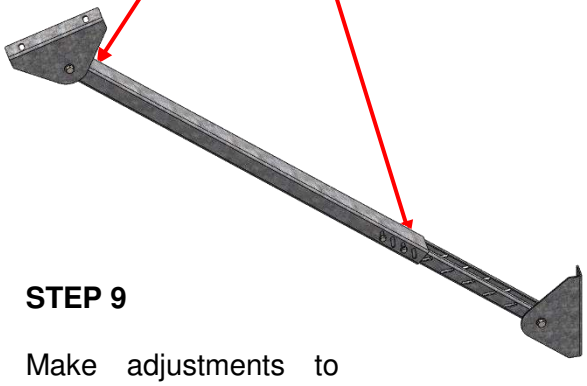
Fixings: M12 x 100 mm (MD)
M12 x 130 mm (HD)

STEP 8

Assemble Brace as required.

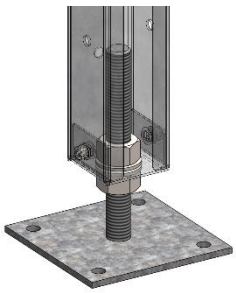
Fixings:
M12 x 30 mm

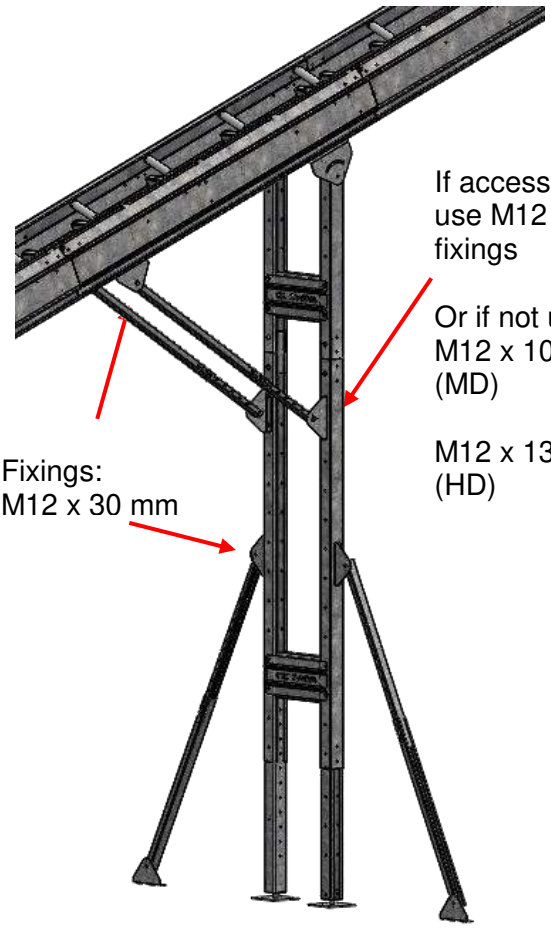
M8 x 85 mm



STEP 9

Make adjustments to final height of conveyor stand by adjusting the M16 (MD) or M30 (HD) nuts up or down threaded bar of the Adjustable Feet.





If access allows use M12 x 30mm fixings

Or if not use:
M12 x 100 mm (MD)

M12 x 130 mm (HD)

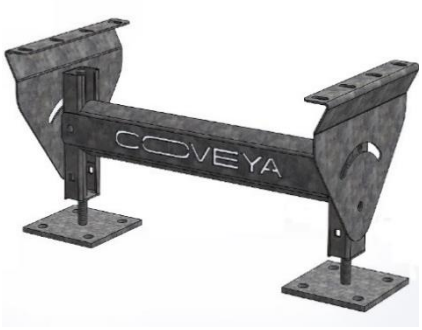
Fixings:
M12 x 30 mm

STEP 10

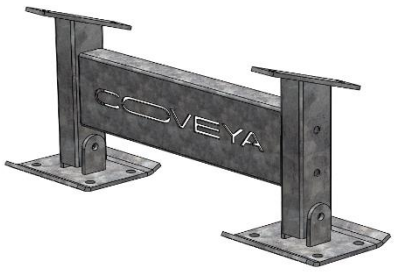
Ensure all upright stand sections are square and vertical. They can now be fixed firmly to a stable base using resin or mechanical anchoring fixings. (These will need to be obtained separately and be adequate to secure the provided weight of conveyor and anticipated loadings).

EASIKIT SUPPORT STANDS

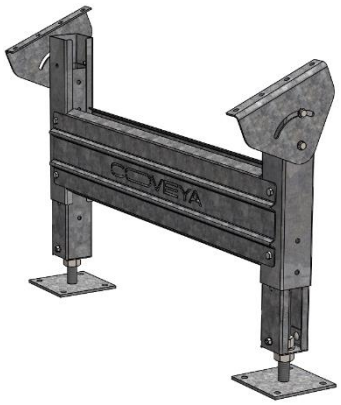
MD Stand 1 – 280 to 440mm		
PART	**DESCRIPTION**	**QTY**
500235	MD Stand Base Plate	2
500236	MD Stand - Adjustable Foot	2
500239	MD Stand Smiley Bracket	2
500972	EK300 Cross Brace – St 1	2
500875	MD Stand 1 Leg	2
FIXINGS	M10 x 25mm BZP Cup Coach Bolt	4
	M10 BZP Nylock Nut	4
	M10 BZP Washers	4
	M12 x 30mm Galv Set Bolt	12
	M12 x 100mm Galv Set Bolt	2
	M12 Galv Nylock Nut	14
	M12 Galv Washer	28
	M16 BZP Nuts	4
	M16 BZP Washers	4



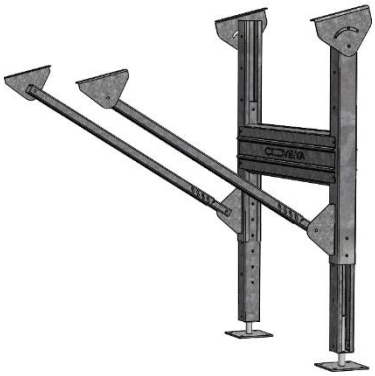
HD Stand 1 – up to 340mm		
PART	**DESCRIPTION**	**QTY**
500935	HD Stand 1 Foot (inner)	2
500936	HD Stand 1 Foot (outer)	2
30166A	HD Foot Base	2
500655	EK300 Cross Member	1
FIXINGS	M12 x 35mm Galv Bolt	4
	M12 x 90mm Galv Bolt	2
	M12 Galv Nuts	6
	M12 Galv Washers	12
	M12 Galv Spring Washers	6



Stand 2 – 695 to 1200mm			
MD	**HD**	**DESCRIPTION**	**QTY**
500235	500224	Stand Base Plate	2
500236	500225	Stand Adjustable Foot	2
500239	30163C	Stand Smiley Bracket	2
500571	500569	Stand 600mm Inner Leg	2
500572	500570	Stand 500mm Outer Leg	2
500654		EK300 Cross Brace	2
FIXINGS		M10 x 25mm BZP Cup Coach Bolt	4
		M10 BZP Nylock Nut	4
		M10 BZP Washers	4
		M12 x 30mm Galv Set Bolt	12
		M12 x 100mm (MD) 130mm (HD) Bolt	4
		M12 Galv Nylock Nut	16
		M12 Galv Washer	32
		M16 (MD) M30 (HD) BZP Nuts	4
		M16 (MD) M30 (HD) BZP Washers	4



Stand 3 – 1450 to 2478mm			
MD	**HD**	**DESCRIPTION**	**QTY**
500235	500224	Stand Base Plate	2
500236	500225	Stand Adjustable Foot	2
500239	30163C	Stand Smiley Bracket	2
500233	500222	Stand 1200mm Inner Leg	2
500231	500220	Stand 1200mm Outer Leg	2
500654		EK300 Cross Brace	2
500228		Brace Outer	2
500229		Brace Inner	2
500230		Brace Fixing Bracket	4
FIXINGS		M8 x 85mm BZP Bolt	4
		M8 BZP Nylock Nut	4
		M8 BZP Washer	8
		M10 x 25mm BZP Cup Coach Bolt	4
		M10 BZP Nylock Nut	4
		M10 BZP Washers	4
		M12 x 30mm Galv Set Bolt	16
		M12 x 100mm (MD) 130mm (HD) Bolt	8
		M12 Galv Nylock Nut	24
		M12 Galv Washer	48
		M16 (MD) M30 (HD) BZP Nuts	4
		M16 (MD) M30 (HD) BZP Washers	4



Stand 4 – 2650 to 3678mm			
MD	**HD**	**DESCRIPTION**	**QTY**
500235	500224	Stand Base Plate	2
500236	500225	Stand Adjustable Foot	2
500239	30163C	Stand Smiley Bracket	2
500233	500222	Stand 1200mm Inner Leg	2
500232	500221	Stand 2400mm Outer Leg	2
500654		EK300 Cross Brace	2
500228		Brace Outer	2
500229		Brace Inner	2
500230		Brace Fixing Bracket	4
FIXINGS		M8 x 85mm BZP Bolt	4
		M8 BZP Nylock Nut	4
		M8 BZP Washer	8
		M10 x 25mm BZP Cup Coach Bolt	4
		M10 BZP Nylock Nut	4
		M10 BZP Washers	4
		M12 x 30mm Galv Set Bolt	16
		M12 x 100mm (MD) 130mm (HD) Bolt	8
		M12 Galv Nylock Nut	24
		M12 Galv Washer	48
		M16 (MD) M30 (HD) BZP Nuts	4
		M16 (MD) M30 (HD) BZP Washers	4

6.9 ELECTRICAL INSTALLATION

WARNING!

ALL ELECTRICAL WORK MUST BE CARRIED OUT BY A QUALIFIED ELECTRICIAN AND SHALL COMPLY WITH RELEVANT STANDARDS AND LEGISLATION

PLEASE REFER TO WIRING DIAGRAMS ON PAGES 29 – 32 PRIOR TO COMMENCING ANY ELECTRICAL INSTALLATION

WARNING!

IT IS IMPORTANT ANY ELECTRICAL WIRING FIXINGS THAT ARE ATTACHED TO THE CONVEYOR DO NOT INTERFERE WITH THE FREE RUNNING OF THE MOVING CONVEYOR BELT

1. Prior to commencing the electrical installation the proposed source of supply should be examined to ensure that it is fit for purpose in terms of capacity, over current protection and fault current protection. The supply cable, (over 110v supply) from the point of supply to the conveyor, shall be suitable to be resistant to the environment in which the conveyor is situated (e.g. armoured construction). The rated setting of the over current protective device is determined by the current carrying capacity of the conductors to be protected.

2. Once all the conveyor sections have been assembled and the conveyor placed in its final position, the electrical wiring can commence. Control equipment shall be easily accessible and located between 0.6m and 1.9m above the service level. An upper limit of 1.7m is recommended.

3. Control equipment shall include the following as a minimum: -
   a. A supply disconnection device (isolator) shall be fitted which is capable of disconnecting the electrical equipment of the machine from the supply when required.
   b. A motor starter and contactor complete with overload protection which shall be fitted in an easily accessible location.
   c. An emergency stop system which is capable of stopping the conveyor in an emergency. Emergency stop devices shall have positive operation, be self-latching and shall be either:
      i. One or more push button operated switches which shall be installed in such a way that at least one may be reached within 10m from any accessible point of the equipment; and or
      ii. One or more pull cord operated switches arranged along the full length of the conveyor.

4. When an emergency stop device(s) has been activated and the conveyor has come to a halt, the conveyor shall remain in a stationary condition until that device has been reset and the start device has subsequently been activated.

5. All interconnecting cables shall be suitable to be resistant to the environment in which the conveyor is situated (e.g. armoured construction).

6.10 ELECTRICAL INSTALLATION - 110V SUPPLY

STARTER BOX

These are supplied ready to use complete with a trailing emergency stop lead. The emergency stop button should be mounted in a convenient point within 10m of the moving belt. A 5KVA transformer should be used. Do not run anything else off the transformer when the conveyor is running as this will damage the equipment.

PLEASE REFER TO 110V WIRING DIAGRAM ON PAGE 32

WARNING!

1. **CAUTION: NEVER BYPASS A STARTER**
2. **DO NOT USE 16 AMP TRANSFORMER OUTLET WHEN RUNNING THE CONVEYOR AS THIS MAY DAMAGE EQUIPMENT.**
3. **PROTECT ALL ELECTRICAL EQUIPMENT FROM WATER**

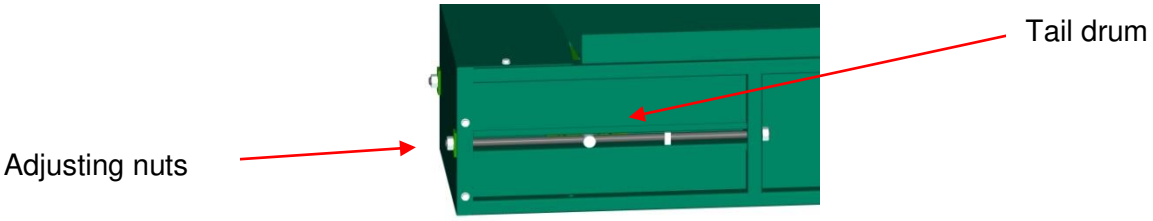
6.11 BELT TENSIONING AND TRACKING

WARNING!

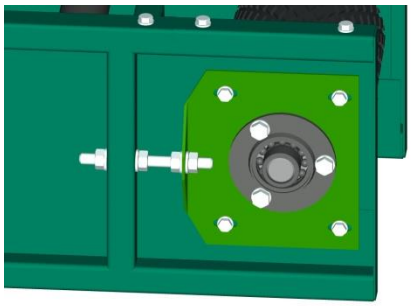
ENSURE THAT NO ARTICLES OF CLOTHING COME IN CONTACT WITH THE MOVING CONVEYOR BELT AT ALL TIMES

Once the belt is in place and the motor wired, proceed as follows:

1. Tighten up adjustment nuts (A) either side of Base Tension Unit using a 19mm spanner bringing the drum back against the belt.



2. Using a 19mm spanner release the tracking stud bar locking nut and turn the tensioning and tracking stud nuts clockwise to draw the Base Tension Unit outwards away from the head drive drum. Continue tensioning until the belt slack between the return rollers on the underside of the conveyor has been taken up.



WARNING!

ENSURE THAT THE TENSIONING IS CARRIED OUT EVENLY ON BOTH SIDES OF THE CONVEYOR OR THE TAIL DRUM MAY JAM AND DAMAGE THE STUDS

3. Run the conveyor motor with NO load on the belt to establish that there is adequate friction on the head drum to run the conveyor belt without it slipping.

WARNING!

THE CONVEYOR MUST BE STOPPED AND ISOLATED BEFORE CONTINUING TO TENSION THE BELT

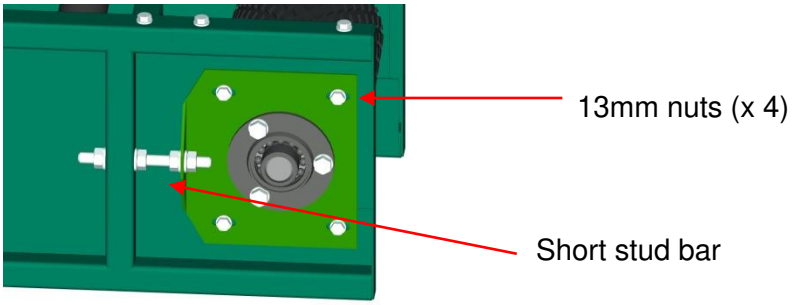
4. Continue to tension the belt as described above but in 10mm increments on each side of the conveyor until the belt no longer slips. Remember to stop and isolate the motor prior to each adjustment.

WARNING!

DO NOT OVER TENSION THE BELT

5. If the belt wanders to one side at the Base Tension Unit drum, stop and isolate the conveyor and tighten the adjusting stud nut on the side that the belt is wandering towards. Re-energize the conveyor and examine the belt travel again and repeat as necessary to eliminate belt wander.

6. If the belt wanders to one side at the Head Unit, stop and isolate the conveyor and loosen the four (4) 13mm nuts on the side opposite to the motor and adjust the short stud bar on the head unit using a 19mm spanner. Re-tighten nuts, re-energize the conveyor and examine the belt travel again and repeat as necessary to eliminate belt wander.



7. Once it has been established that the belt is running correctly on the drums, re-tighten the screw tension clamps using a 19mm spanner either side of the Base Tension Unit.

8. Once the belt has been correctly tensioned and tracked, the hopper can now be bolted on. (See section 6.11)

9. If belt slips again when it is under load, firstly ensure that the conveyor has not been overloaded beyond the capacity of your conveyor, and then continue the above procedures until slipping stops.

WARNING!

IF THE BELT IS NOT PROPERLY TRACKED THIS WILL WEAR BOTH THE CONVEYOR AND THE BELT

WARNING!

WET AND COLD WEATHER CONDITIONS CAN CREATE PROBLEMS WITH BELT SLIPPING.
VERY WET MATERIALS CAN ALSO CREATE BELT SLIPPING PROBLEMS.

6.12 HOPPER

Hoppers are supplied ready assembled complete with rubber skirting. The Hopper is mounted on the Base Tension Unit of the conveyor and fixed in place with pre-supplied nut and bolt fixings.

WARNING!

INCORRECT OR UNEVEN FEEDING OF MATERIAL IN THE HOPPER MAY CREATE BELT TRACKING PROBLEMS

7. EASIKIT ROUTINE MAINTENANCE

WARNING!
ISOLATE CONVEYOR BEFORE COMMENCING MAINTENANCE

ROUTINE MAINTENANCE CHECKS

Routine maintenance checks are very important in maintaining the full useful working life of your Easikit conveyor. A regular maintenance program paying due attention to all the components itemised in this Routine Maintenance section will reduce the likelihood of break-down and costly downtime. Frequency of checks will depend on conveyor usage i.e. material being handled, hours worked per day etc. Checks are recommended at regular intervals depending on the amount of working hours that the conveyor is being used for.

A main feature in extending the life of your conveyor is thorough cleaning at regular intervals to prevent material build-up particularly around the feed and discharge points (good house-keeping is essential).

THERE ARE REGULAR MAINTENANCE CHECKS THAT MUST BE CARRIED OUT: -

1. **EVERY WEEK (or 60 hours)**
2. **EVERY MONTH (or 250 hours)**
3. **EVERY 3 MONTHS (or 750 hours)**
4. **ANNUALLY (or 3000 hours)**

WARNING!
DOWN TIME COSTS MONEY,
LOOK AFTER YOUR EASIKIT CONVEYOR!

ROUTINE MAINTENANCE CHECK LIST

7.1 MATERIAL HANDLING

It is very important to ensure that your conveyor is operating within its capacity. If you are in doubt as to the capacity, please consult your conveyor supplier. Overflowing and excessive quantities of material on the belt will lead to material build up in unnecessary areas that will in turn cause damage to your conveyor.

7.2 MATERIAL FEED POINTS

Inspect the feed points of the conveyor and ensure that material is feeding correctly onto the belt and that there is no over flow or spillage onto the surrounding area. Any material build up will create a hazard which will develop into a potential for conveyor failure and cause subsequent down time.

7.3 RUBBER BELT

Rubber belt and belt joints are classed as 'wear' items and not covered under the manufacturer's warranty. Regular inspection of the belt, joints and tracking will help prevent any unnecessary damage to these items and to the conveyor framework. Particular attention will need to be given to metal clip joints (where supplied) as wear to the underside of the joint will not readily be noticeable from a surface visual inspection.

7.4 ROLLERS

Intermediate top rollers and return wheels will need to be inspected regularly for free rotation and any excessive wear. These have sealed for life bearings and will need to be kept free from any material build up. Do not use thin spray lubricants (i.e. WD-40) as these will wash out the pre-greased bearings. If external lubrication is needed, this should be done with a spray lubricant grease (avoid any contact with the rubber belt).

7.5 HEAD UNIT

The Head Unit should be checked as per the maintenance schedule and visually assessed to ensure that the drum is functioning correctly and that the lagging is not excessively worn. The Head Drum and its mountings should be secure and in alignment with the conveyor, and the motor mounting bracket secure to both conveyor frame and gearbox. An inspection should be carried out to the inside of the side mounting plates to ensure that the belt has not been running out of alignment causing the edge of the moving belt to rub and wear the plates.

7.6 TAIL UNIT

The Tail Unit should be checked as per the maintenance schedule and visually assessed to ensure that it is functioning correctly and that the drum is clean with no excessive build-up of material around the drum and that it is running in the bearings correctly. This can be accessed by removing the tail drum guard (and the hopper if possible). Ensure that the tensioning stud bars each side are clean and operational and that the side clamps are tightly secured. The tensioning stud bars will benefit from a periodic light greasing with a multipurpose grease.

7.7 JOINT CHECK

All conveyor section connecting joints and bolts should be checked periodically as per the maintenance schedule.

7.8 MOTOR & ELECTRICS

Carry out a regular visual check to ensure there are no obvious signs of wear or damage to the motor and supply cables. Any wear or damage in these areas should be reported immediately to a competent electrician to carry out further investigation and any necessary repair work.

7.9 GEARBOX UNITS

All gearboxes supplied are maintenance free as they are lubricated for life at the factory and the oil should not require changing. Visually inspect for damage.

7.10 BEARINGS

All external bearings need to be inspected for any excessive wear and that they are secure to the conveyor frame and in clean condition. All these bearings will need grease lubrication regularly. The manufacturer's recommended lubricant is a high quality lithium based grease of 2-3 consistency. They will need to be checked as per the maintenance schedule.

WARNING!

DO NOT OVERGREASE BEARINGS

7.11 BELT TRACKING

Belt tracking should be visually checked at both ends of the conveyor to ensure that the belt is running in the centre of the drums and not running to one side more than the other. You may need to remove any objects that obstruct your visual inspection. If the belt is running out of alignment follow the belt tracking procedure as set out in Section 6.10.

7.12 BELT TENSIONING

To check the belt tension on you conveyor, first make sure that there is no load on the belt. Ensure that you are situated in a safe position prior to starting the conveyor to inspect the belt running and that you are able to visually see the head drive drum on start-up of the conveyor. On start-up, first check that there is no belt slippage on the drum. If the belt is not slipping, then repeat this check with the belt running under its normal working load. Should you experience any slipping of the belt at the drive drum, then increase the tension at the tail drum end by following the tracking and tensioning procedure as set out in Section 6.10

7.13 HOPPER

Inspect regularly as per the maintenance schedule to ensure that there is no material build up in the hopper and its surrounding area. Check thoroughly that there is no damage to the hopper. Clean and remove material as necessary. Check hopper rubbers for wear or damage and replace if required. (These are classed as 'wear' items and not covered by the manufacturer's warranty). Ensure all fixings are secure and tightened.

7.14 CONVEYOR WASHDOWN

Periodic washing and cleaning of your conveyor will be necessary to maintain its efficient operation. The manufacturers recommend the use of a high power water jet or similar (e.g. steam cleaner). Correct PPE should be worn when carrying out washing etc. Prior to undertaking any washing, the environment the conveyor is situated in should be considered and that no damage of surrounding items is likely to occur. Ensure there is adequate drainage prior to washing. Excessive material should be disposed of in a manner that will not cause damage to the environment. Ideally the belt tension should be released allowing the belt to be raised to gain access to the inside of the conveyor frame. Particular attention and thorough washing will be required around the head and tail drum areas.

WARNING!

ENSURE ALL COVERS & GUARDS HAVE BEEN REPLACED PRIOR TO RE-STARTING YOUR CONVEYOR AND THAT ALL FIXINGS ARE TIGHT & SECURE.

7.15 DOCUMENTATION

All maintenance should be documented accordingly in the separate Service Schedule.

EASIKIT ROUTINE MAINTENANCE SCHEDULE

Item	Maintenance check	Frequency			
		Weekly	Monthly	3 Monthly	Annual
		or 60 hours	or 250 hours	or 750 hours	or 3000 hours
7.1	Material Handling			✓	✓
7.2	Material Feed Points	✓	✓	✓	✓
7.3	Rubber Belt	✓	✓	✓	✓
7.4	Rollers		✓	✓	✓
7.5	Head Unit			✓	✓
7.6	Tail Unit			✓	✓
7.7	Joint Check			✓	✓
7.8	Motor & Electrics	✓	✓	✓	✓
7.9	Gearbox Units				✓
7.10	Bearings			✓	✓
7.11	Belt Tracking	✓	✓	✓	✓
7.12	Belt Tensioning			✓	✓
7.13	Hopper			✓	✓
7.14	Conveyor Washdown				✓
7.15	Documentation		✓	✓	✓

Contact your supplier for replacement parts.

ROUTINE MAINTENANCE CONTRACTS

Service contracts are available. Contact your supplier for details

WARRANTY

See Warranty on Page 33. It is important that the Maintenance Schedule is adhered to in order to validate the manufacturer's warranty.

10. EASIKIT 300 PARTS LIST

EASIKIT 300 HEAD UNIT	
ITEM NO.	**DESCRIPTION**
30007	Head Unit Frame
30012A	Head Wear Strip
30012B	Head Wear Strip
30042	Roller
30054	Drive Roller
30055	Bearing MTG Plate
30056	Bearing MTG Plate
30059A	Wear Plate
30059B	Wear Plate
30P	Bearing Cap
30099A	Return Wheels (Set)
30099	Return Wheels (Single)
SLFE30	Bearing Motor Side
SLFEP30	Bearing
30002-Y5	Tracking Stud

EASIKIT 300 BASE TENSION UNIT	
ITEM NO.	**DESCRIPTION**
30010	Tail Unit Frame
30039	Skirt
30040A	Mtg Angle
30040B	Mtg Angle
30013A	Tail Wear Strip
30013B	Tail Wear Strip
30042	Roller
30043	Shaft
30044	Idler Drum
30057	Tail Guard
30064	Square Nut
30068	Tensioning Stud
36604	Toggle Boss
36605	Toggle Tee

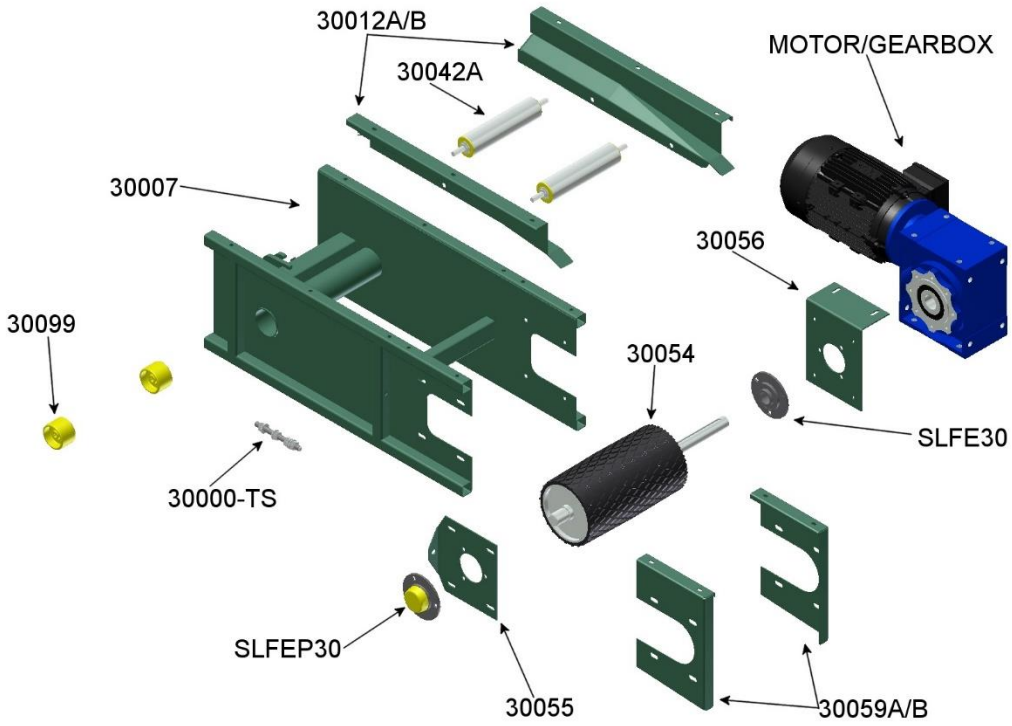
EASIKIT 300 BASE TENSION UNIT (cont'd)	
ITEM NO.	**DESCRIPTION**
36619	Toggle Bolt
FC25	Tail Bearing
30099A	Return Wheels (Set)
30099	Return Wheels (Single)
30071	Rubber Clamp
30072	Hopper Rubber
30076	Hopper Frame

EASIKIT 300 1.2m (4ft) SECTION	
ITEM NO.	**DESCRIPTION**
30009	1.2m Frame
30019A	1.2m Wear Strip
30019B	1.2m Wear Strip
30042	Roller
36604	Toggle Boss
36605	Toggle Tee
36619	Toggle Bolt
30099A	Return Wheels (Set)
30099	Return Wheels (Single)

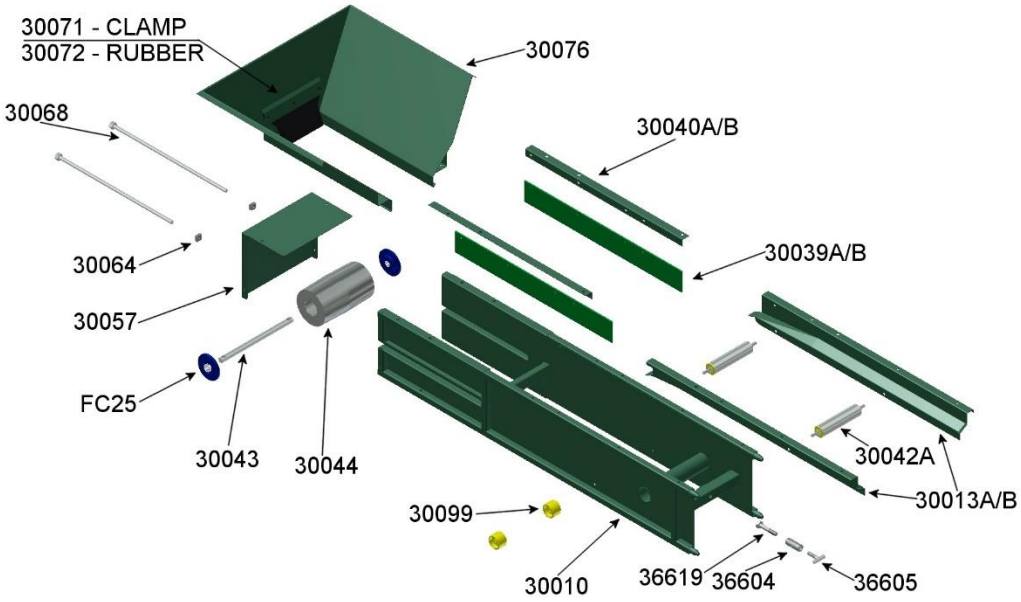
EASIKIT 300 2.4m (8ft) SECTION	
ITEM NO.	**DESCRIPTION**
30008	2.4m Frame
30018A	2.4m Wear Strip
30018B	2.4m Wear Strip
30042	Roller
36604	Toggle Boss
36605	Toggle Tee
36619	Toggle Bolt
30099A	Return Wheels (Set)
30099	Return Wheels (Single)

11. EASIKIT 300 EXPLODED DIAGRAMS

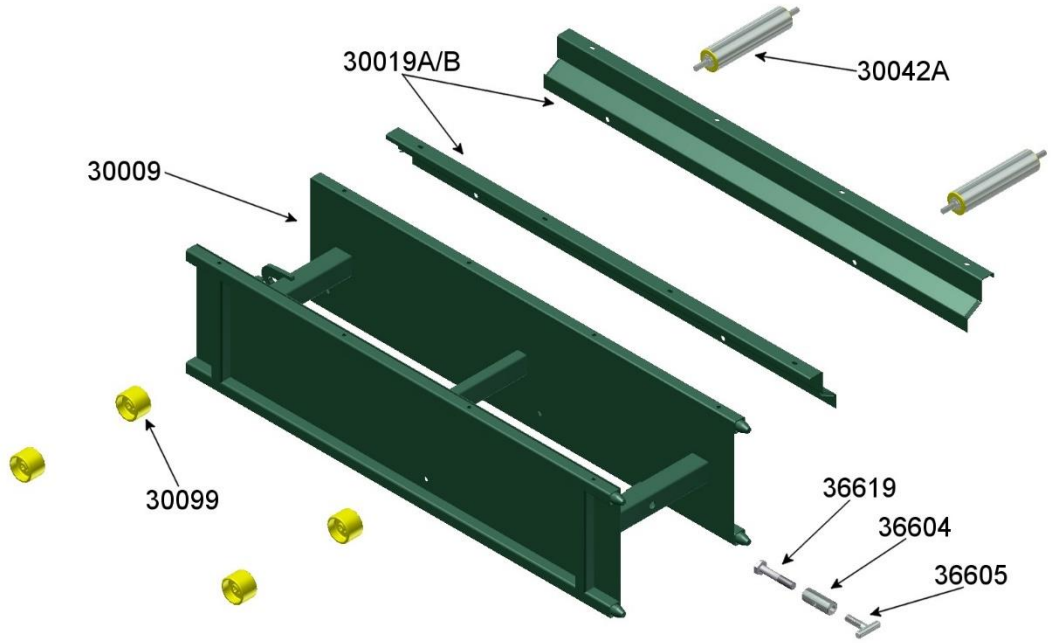
301: HEAD DRIVE UNIT



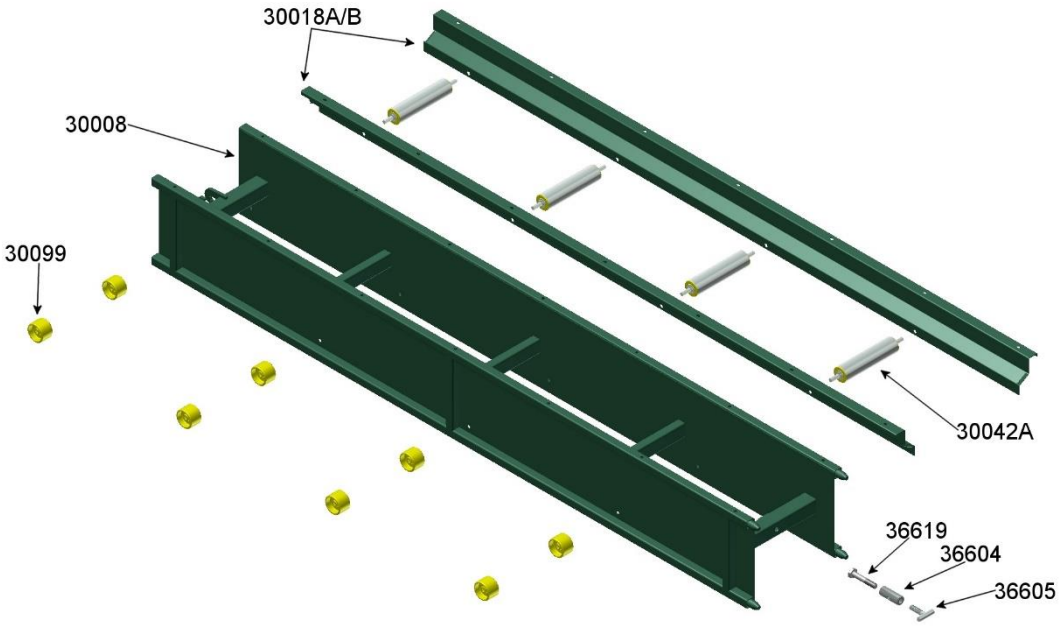
302: BASE TENSION UNIT (TAIL)



303: 1.2m (4 ft) SECTION



304: 2.4m (8 ft) SECTION



12. APPENDIX
ELECTRICAL WIRING DIAGRAMS

DIAGRAM No: 1

Radial Drive
3 Phase 415v Inverter Wiring
To Comply with PELV
BS EN 60204 – 1 : 2006+A1 : 2009

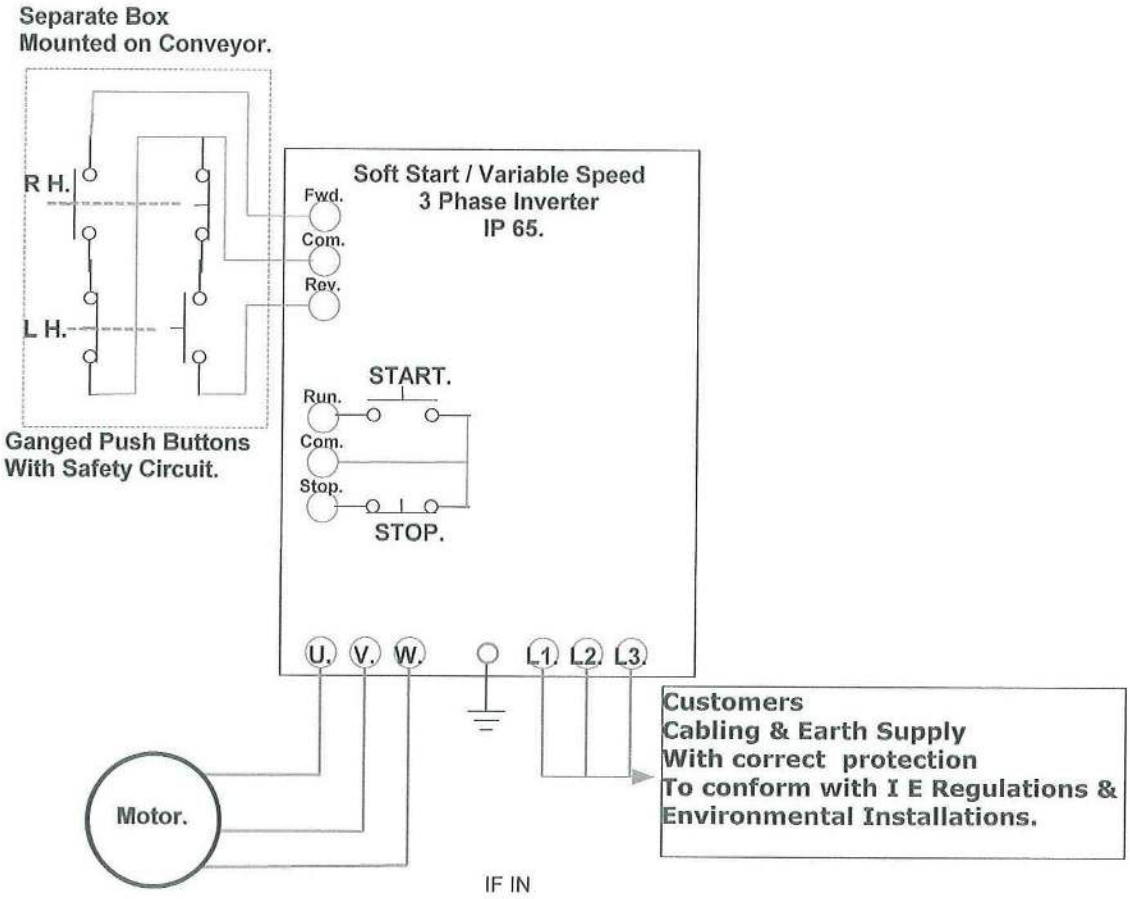


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DIAGRAM No: 2a

D O L Starter Modification to Low voltage initiation

3 Phase Inverter 415v. DOL Motor Starter
Low voltage Coil Supply 24v
To Comply with PELV
BS EN 60204 – 1 : 2006+A1 : 2009

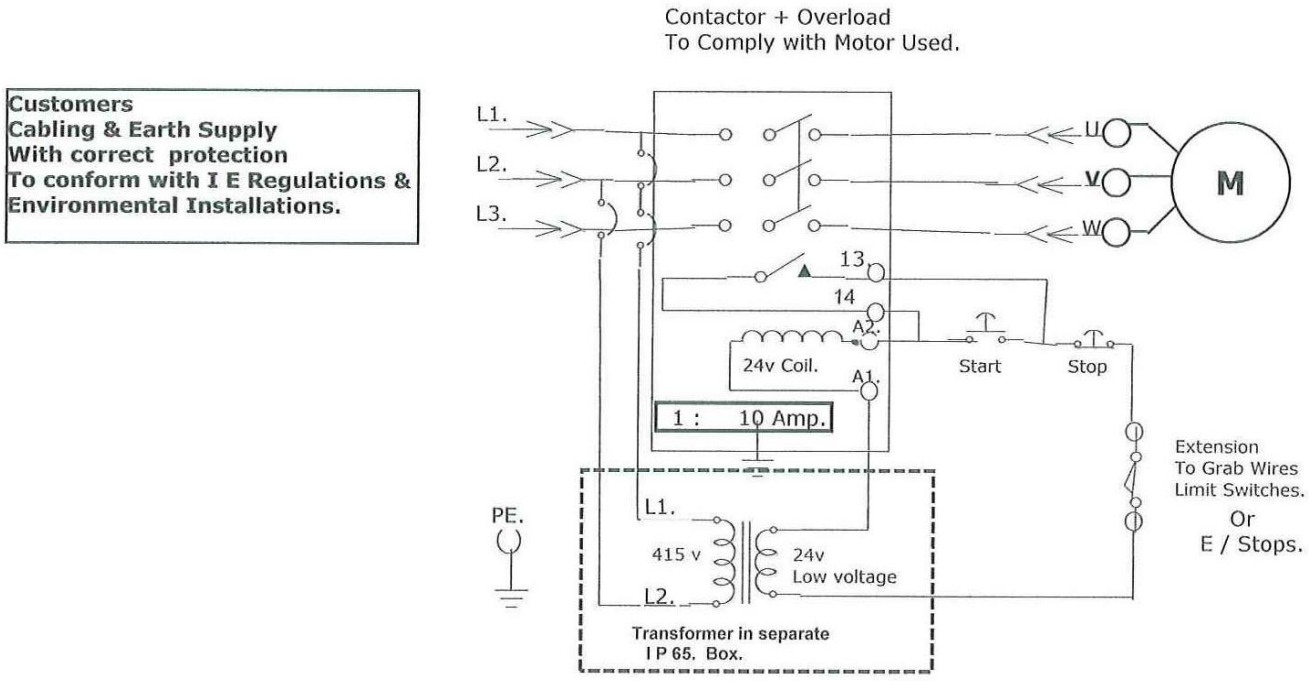

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DIAGRAM No: 2b

D O L Starter Forward & Reverse Modification to Low voltage Initiation

3 Phase Inverter 415v. DOL Motor Starter
Low voltage Coil & Supply 24v
To Comply with PELV
BS EN 60204 – 1 : 2006+A1 : 2009

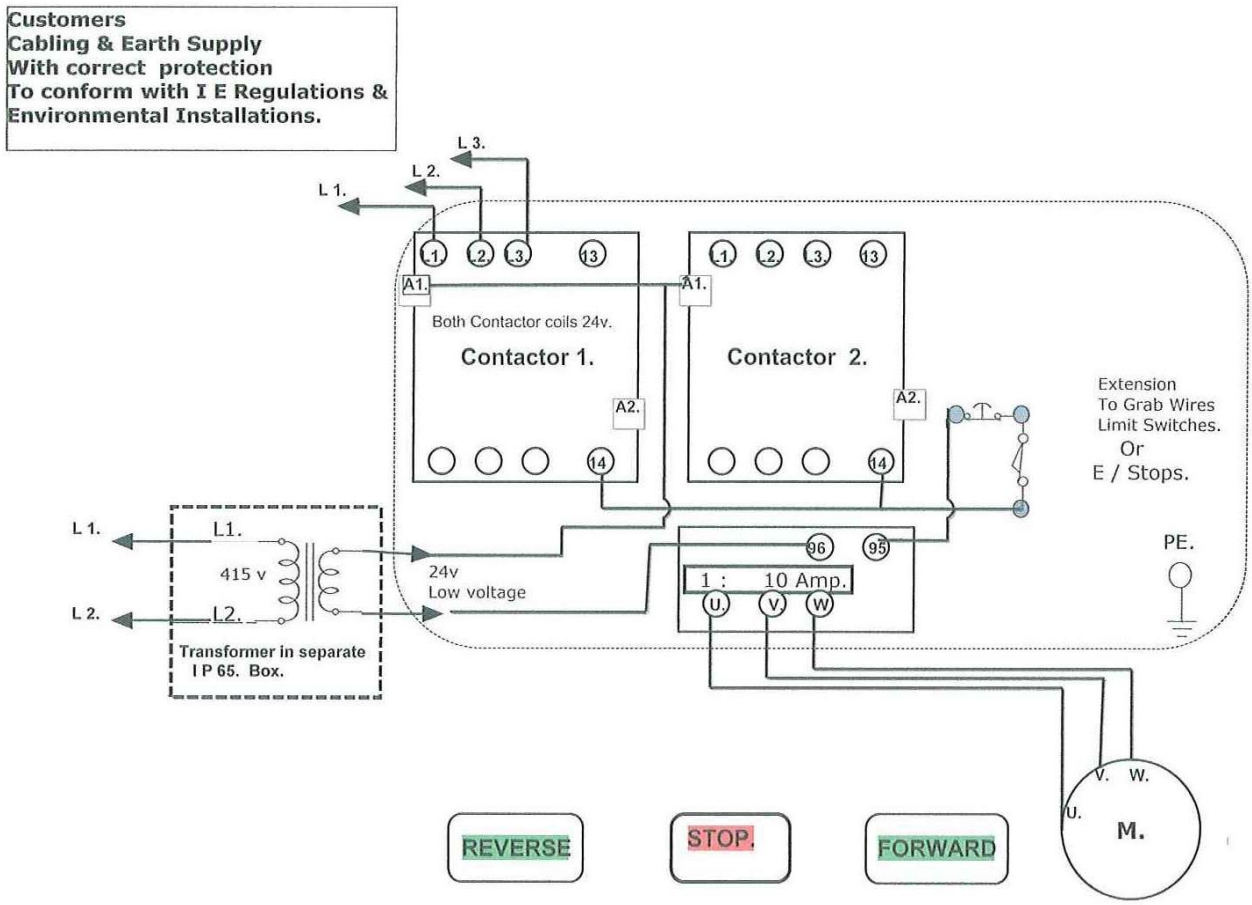

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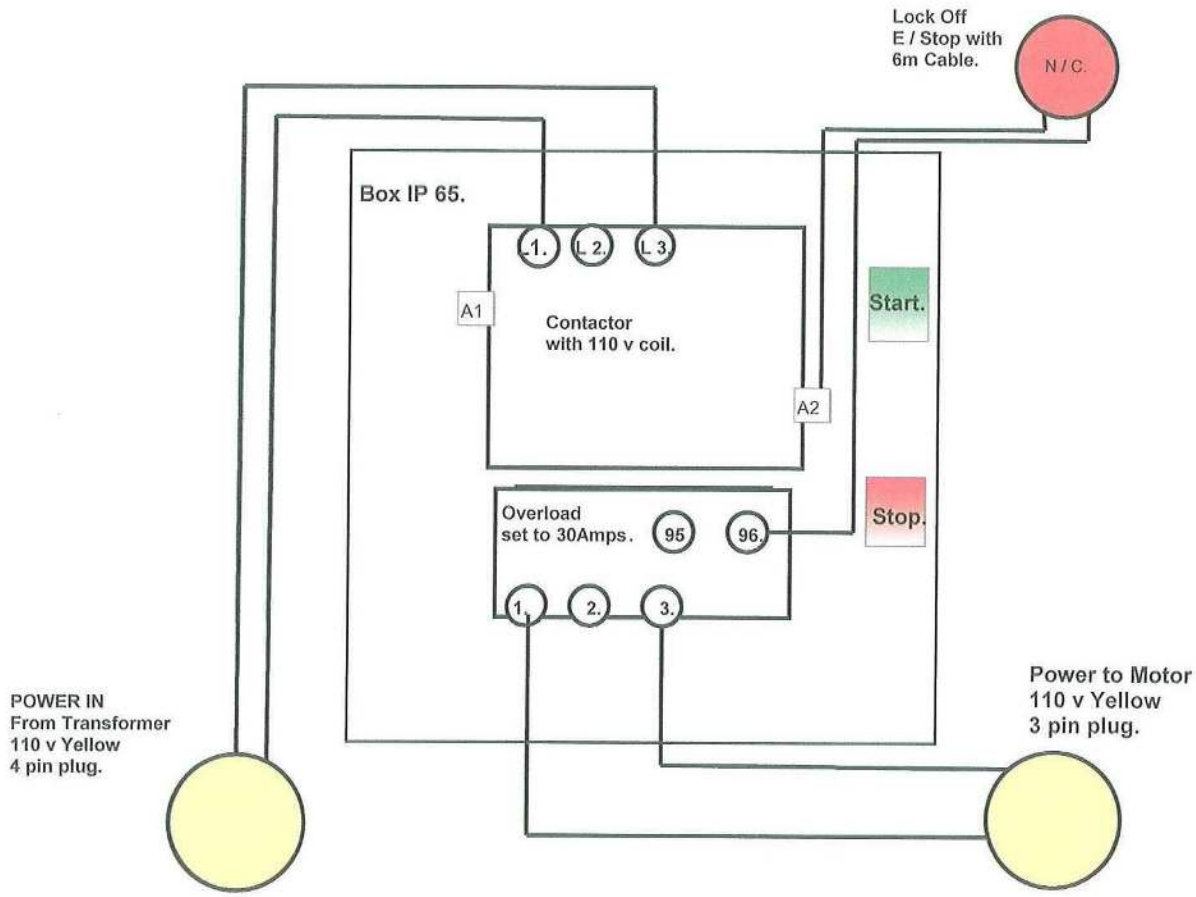
DIAGRAM No: 3

110v Starter Box
To Comply with PELV
BS EN 60204 – 1 : 2006+A1 : 2009



IF IN DOUBT ASK

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WARRANTY

The manufacturer will correct, free of charge, any defects in material or workmanship for a period of 12 months, from date of purchase, subject to the terms and conditions stated below.

TERMS AND CONDITIONS OF WARRANTY

The manufacturer will repair or replace, free of charge, any mechanical or electrical components supplied in conjunction with any conveyors or other equipment carrying a warranty supplied either by the manufacturer or an appointed agent and located within the United Kingdom, or repair or replace any parts thereof which are shown to the satisfaction of the manufacturer to be defective due to faulty materials or workmanship within twelve months from the date of purchase, provided the faulty part(s) are returned, complete and carriage paid, either to the manufacturer or an appointed agent. Any parts removed will become the property of the manufacturer.

This warranty is valid subject to the operator providing proof to the conveyor supplier (if requested) that the recommended Maintenance schedule shown within the Easikit Instruction Manual has been adhered to.

THIS WARRANTY SHALL NOT COVER ANY FAULT OR DEFECT CAUSED BY:

1. Incorrect installation or operation arising from failure to observe the instructions of the manufacturer or its agents e.g. inadequately rated power source or incorrect voltage or power cables.
2. Physical damage, however it was caused.
3. Repairs or alterations carried out by third parties other than the manufacturer or an authorized agent.

THE FOLLOWING ITEMS ARE EXCLUDED FROM THE WARRANTY:

1. Fair wear and tear
2. Rubber and PVC skirting

This warranty shall not apply to nor cover any other claims whatsoever. It will, in particular, (without limiting the generality of the foregoing), not cover any claims for conversion or modification or for the cost of repairs carried out by any third party without the prior consent of the manufacturer.

Before free service is given under this warranty the purchaser must provide to manufacturer's satisfaction, proof of date of purchase of the conveyor and quote the serial number(s). If replacement parts are fitted then the original period of warranty will not be extended.