CoMeo®

Use and Assembly Guide



Original use and assembly guide



TABLE OF CONTENTS

DISCLAIMER GENERAL INFORMATION

PARTI	· INSTRI	ICTIONS	FOR:	THE USER

	GENERAL SAFETY RULES	I-3 I-4
	MAINTENANCE INSTRUCTIONS	1- 7 1-7
	TROUBLESHOOTING GUIDE	I-8
	OPERATORS GUIDE	I-10
	DECLARATION OF INCORPORATION OF PARTLY COMPLETED MACHINERY	1 10
	EC-DECLARATION OF CONFORMITY	
)	ART II : COMPONENTS	
	GENERAL LAY-OUT	II-2
	COMPONENT NUMBERS	II-3
	ADJUSTER RING REGULATOR	11-4
	OPTION : AUGER INJECTOR KIT	11-4
	PARTS COMEO PAN	II-5
	PARTS FOR BROILER CAGE	II-6
	PAN PARTS FOR COMEO (FLOOR FEEDING)	II-7
	COMEO PANS (CLEANING OPTION + POULTRY PERCH GUARD)	II-8
	FEEDER LINE COMPONENTS	II-9
	STRAINER FOR 100KG HOPPER	II-9
	HOPPER EXTENSION 50KG	II-9
	100KG HOPPER	II-10
	COVER HALF FOR 100KG HOPPER	II-10
	THUMPER ASSEMBLY (OPTION)	II-11
	FEED INTAKE BOOT	II-11
	POULTRY INTAKE BOOT WITH SENSOR - 230 V AC / 24 V DC	II-12
	OPTION : DOUBLE FEED INTAKE BOOT	II-13
	OPTION: THUMPER KIT FOR DOUBLE INTAKE BOOT	II-13
	OPTION: EXTENSION WITH SENSOR - 230 V AC / 24 V DC	II-14
	CONTROL UNIT COMEO WITH SWITCH	II-15
	CONTROL UNIT COMEO WITH SENSOR	II-16 II-17
	FIXED INTERMEDIATE CONTROL UNIT COMEO WITH SWITCH	II-17 II-18
	MOVABLE INTERM. CONTR.UN. COMEO W/SWITCH	II-10 II-19
	MOVABLE INTERM. CONTR.UN. COMEO W/SENSOR	II-19
	POWER UNIT	II-21
	POWER UNITS (FOR US ONLY)	11-22
	SUSPENSION COMPONENTS	II-23
	SINGLE EYE PULLEY	II-24
	HEAVY DUTY PULLEY	11-24
	HAND OPERATED CENTRAL WINCH	II-25
	MOUNTING PLATE F/HAND OPERATED CENTRAL WINCH	II-25
	TELESCOPICAL WINCH DRIVE ASSEMBLY	II-25
	MOTOR	II-26
	WINCH W/SWITCH + CP - MOTOR OPERATED	II-26
	STANDARD : CONTROL SWITCH FOR WINCH	II-26
	WINCH W/SWITCH - MOTOR OPERATED	II-27
	OPTION : CONTROL PANEL FOR CENTRAL WINCH	II-27
	OPTION: CONTROL SWITCH FOR WINCH	II-27
	MOTOR STARTER	II-28
	CONTROL PANEL WITH TIME CLOCK	II-29
	BOX W/COUNTER	II-29
	OPTION : CONTROL PANEL INTERMEDIATE CONTROL UNIT	II-29
	END UNIT	II-30
	MINIMUM SWITCH	II-31
	EXTENSION FEED INTAKE BOOT	II-31
	FLEXIBLE CONNECTION BOXLED LIGHT KIT FOR CONTROL UNIT	II-32 II-33
	LED LIGHT AT FOR CONTROL UNIT	11-33

	LED LIGHT KIT F/ INTERM. CONTROL UNIT	
	SPARES SET BEAR.CAP HOLD - Ø44.5	II-34
Δ	RT III : INSTALLATION INSTRUCTIONS	
	GENERAL SAFETY RULES	III-3
	GENERAL LAY-OUT	III- 4
	COMPONENT NUMBERS	III-5
	TOOLS	III-6
	ELECTRICITY WATCH OUT!	III-7
	ELECTRICAL WIRING DIAGRAM	III-7
	THE SUSPENSION	III-8
	SUSPENSION COMPONENTS	III-8
	DRAWINGS OF SUSPENSION SYSTEM WITH CENTRAL WINCH	III-9
	CENTRAL WINCH	III-11
	SUSPENSION FOR FEEDER LINE	III-12
	TO INSTALL THE MAIN CABLE	III-14
	TIGHTEN MAIN CABLE	III-19
	TO INSTALL THE LINE	III-20
	POSSIBLE FEEDER PAN COMBINATIONS	III-20
	POSSIBLE FEEDER PAN COMBINATIONS	III-21 III-22
	TO INSTALL THE FEEDER PANS	
	TO INSTALL THE SHUT OFF SLIDE	III-31 III-32
	TO INSTALL THE FEEDER LINE	III-32
	TO INSTALL THE INTERMEDIATE CONTROL	III-35
	TO INSTALL THE TUBE WITH HOLE	III-35
	CONTROL PANEL INTERMEDIATE CONTROL UNIT (WITH SENSOR)	III-36
	FEED INTAKE BOOT	III-37
	OPTION: SUPPORT FOR HOPPER IN LINE	III-37
	TO INSTALL AND SUSPEND THE 100KG HOPPER	III-38
	TO INSTALL THE CONTROL UNIT	III-39
	POWER UNIT SUSPENSION	III-39
	CONNECTION BOX KIT FOR CONTROL PAN (FOR US ONLY)	III-40
	TO INSTALL THE AUGER	III-42
	TO INSTALL THE THUMPER (OPTION)	III-48
	ADJUSTMENT	III-49
	ADJUSTMENT LIMIT SWITCH	III-50
	CONNECTION DIAGRAM: SEE CP CENTRAL WINCH	III-50
	TO INSTALL THE POULTRY PERCH GUARD	III-51
	TO INSTALL THE FLEX AUGER FEED SUPPLY SYSTEM	III-54
	TO INSTALL THE TELESCOPICAL TUBE	III-55
	ELECTRICAL SYMBOLS	III-56
	WIRING DIAGRAM FOR 1X230V	III-57
	WIRING DIAGRAM FOR 3X230V	III-58
	WIRING DIAGRAM FOR 3X400V	III-59
	LED LIGHT KIT FOR CONTROL UNIT	III-60
	LED LIGHT KIT FOR INTERMEDIATE CONTROL UNIT	III-61
	MOTOR PROTECTION	III-62
	MAYIMLIM CARLE LENGTHS TO THE MOTORS	III_63

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GENERAL INFORMATION

THESE INSTRUCTIONS MUST BE READ, UNDERSTOOD AND ALL POINTS OBSERVED BY THE USER, THE RESPONSIBLE AND OPERATING PERSONNEL.

1. OBEY THE LEGAL REGULATIONS AND THE APPLICABLE RULES!

This concerns, among other things, the European directives transposed into national legislation and/or the laws, safety and accident prevention regulations that apply in the user's country.

During assembly, operation and maintenance of the installation the legal regulations concerned and the applicable technical rules must be obeyed.

2. INTENDED USE

The installation has been designed solely for intensive livestock use and has been developed according to the applicable rules of good workmanship. Extra loading of the product is therefore prohibited. Any other use is considered to be improper use. The manufacturer is not responsible for damage resulting there from. The user bears sole responsibility.

3. NOT-INTENDED USE

All use different than described in point 2" intended use" is at the responsibility of the end user.

4. LIABILITY

The (Extended) Warranty will not apply if any of the following has occurred: failure to conduct incoming goods inspection with regards to the Products, improper handling, transportation, modification or repair; accident, abuse or improper use; improper assembly, installation, connection or maintenance (having regard to Roxell's most current assembly, installation, connection and maintenance manuals); force majeure; negligence, lack of supervision or of maintenance on the part of customer; normal wear and tear; use of cleansing agents and disinfectants that are excluded in Roxell's most current use and maintenance manuals; use of cleansing agents and disinfectants in violation with the instructions received from the suppliers; or use of the Products in an ATEX-surrounding.

The (Extended) Warranty shall not apply in the event of a defect caused either by materials or accessories supplied by or services rendered by Customer; or by an intervention by a person or entity which is not authorised or qualified for carrying out such intervention. Furthermore, the (Extended) Warranty will only apply if the Products are used in livestock houses and if all parts or components of the Products are supplied by Roxell.

Roxell will not be liable for any damages caused due to improper use, assembly, installation, connection or maintenance of the Products. In this respect, the Customer expressly acknowledges that (i) all use, assembly, installation, connection or maintenance must be donein accordance with Roxell's most current assembly, installation, connection and maintenance manuals and (ii) the electrical installation on which the Products must be connected must be done in accordance with applicable local legislation on electrical installations. Furthermore, the Products must be tested both mechanically and electrically in accordance with state of the art techniques and applicable local legislation.

5. PERSONNEL QUALIFICATIONS

USER:

The person who uses a function or operation of a product for their work or who works on the product. The user must be able to read the instructions for use and fully understand them. The user has knowledge of the functioning and construction of the installation.

TECHNICALLY TRAINED PERSON:

An expert who can assemble and maintain the installation (mechanically/electrically), and resolve malfunctions. On the basis of his/her technical training and experience, he/she has sufficient knowledge to be able to assess activities, recognise possible dangers and rectify dangerous situations.

6. INFORMATION ABOUT THE RESIDUAL RISKS - USED SAFETY SIGNS

There are three levels of danger, which you can recognize from the signal word

- * DANGER
- * WARNING
- * CAUTION

The nature and source of the imminent danger and possible consequences of not obeying warnings is stated here!

DANGER	DANGER indicates a direct imminent danger that can result in a serious or even fatal accident if the safety measures are not respected.
WARNING	WARNING indicates a possible imminent danger that can result in a serious accident or damage to the product if the safety measures are not respected.
CAUTION	CAUTION indicates possible, dangerous situations that can result in minor physical injury or material damage if the safety measures are not respected.
i	This symbol refers to supporting information.
allowed not allowed	

7. STORAGE

Put all parts to be assembled in a room or at a location where the not yet assembled components are protected against weather influences.

8. TRANSPORT

Depending on the size of the parts and according to local circumstances and local legislation, the parts of the machine have to be transported with a forklift.

The forklift must be operated by a qualified person and in accordance with the rules of good workmanship. When lifting the load, always check if the center of gravity of the load is stable.

9. DISMANTLING

Dismantle the installation and its components in accordance with the environmental legislation of the country or the local authorities applicable at that time. All functioning products and exchange parts must be stored and disposed of in accordance with the applicable environmental regulations.

Environmental information for customers in the European Union



European directive 2002/96/EC amended by the Directive 2008/34/EC requires that equipment that bears this symbol on the product or packaging must not be disposed of with unsorted household waste. This symbol indicates that the product must be disposed of separately. Your are yourself responsible for the destruction of this and other electrical and electronic equipment via the disposal channels designated for that purpose by the national or local government. The correct destruction and recycling of this equipment prevents any negative consequences for the environment and health. For more information about destroying your old equipment, contact your local authorities or waste disposal service.

Information about waste disposal - electrical/electronic material for companies

1. In the European Union

If you have used the product for commercial purposes and you want to dispose of it, contact Roxell who will give you information about the return of the product. It is possible that you will have to pay a disposal charge for the return and recycling. Small products (and small quantities) can be processed by the local collection agencies.

2. In other countries outside the European Union

If you want to dispose of this product, contact the local authorities for information concerning the correct disposal procedure.

10. THE LEVEL OF NOISE EMISSION

The noise level of the installation in operation does not exceed 70dB(A).

11. LOCK OUT TAG OUT - LOCK METHOD GENERAL

- Everyone needs his own lock and tag (label), which can't be removed by other persons.
- Inform all persons who are influenced by the procedure.
- Localize all sources of energy (electric, hydraulic, pneumatic).
- Switch off.
- Lock out and tag out.
- Check if the source of energy is switched off.
- Remove any remaining energy.

12. USE PERSONAL PROTECTIVE EQUIPMENT.

Ensure you wear personal protective equipment (gloves, dust masks...).

13. SUFFICIENT LIGHTING - ILLUMINANCE

- A minimum illuminance of 200 lux is necessary during usage, maintenance and installation.
- Provide at the installation (portable) emergency lighting in case of power failure.

14. ELECTRICAL EQUIPMENT, CONTROL PANELS, COMPONENTS AND DRIVE UNITS

- To operate control panels, there must be at least 70 cm of free space.
- Control panels must **always remain closed.** The key of the control panel must be in possession of an authorized person.
- The necessary measures must be taken by the user to keep out **rats**, **mice and other vermin from the control panels**
- If electrical equipment, control panels, components and drive units are damaged, the system must be stopped **IMMEDIATELY!**
- Electrical equipment, control panels, components and drive units should NEVER be sprayed with water or other liquid!
- Electrical equipment, control panels, components and drive units should NEVER be covered with any material.



PART I

INSTRUCTIONS FOR THE USER

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GENERAL SAFETY RULES

Minimax/HaïKoo/Comeo Nr: 002.../009.../001

Automatisch pannen voedersysteem voor vleestkuikens

Automatic pan feeding system for broilers

Winching systeem

Liersysteem voor voer- en drinklijnen Winching system for feed and drink lines

IMPORTANT



Carefully read the following instructions before USING the system

- 1. Before you do any repair, or maintenance works, always disconnect the electricity supply.
- 2. Ensure you wear personal protection equipment (gloves, dust masks).
- 3. The system starts automatically.
 Never use your hands at dangerous locations (feed intake boots, drive units, control units or outlet holes in the tubes) before you have completely switched off the transport system and made sure that nobody can switch it on without your knowledge.
- **4. Never** allow **unauthorized persons** to **enter the house** in your absence.
- 5. Be careful when lowering or winching up the feeding lines/circuits:
 - **stop** immediately at the slightest hitch.
 - never stay underneath when lowering or winching up the lines/circuit.
- **6.** If the auger stalls: **immediately** switch **off** the system. Carefully read the trouble shooting guide and strictly follow instructions. Contact a **technically trained person**. An auger **under tension** can **cause very serious injuries** when released.
- 7. Regularly check the elbow/trough and/or tube connections. Tighten if necessary.
- **8.** Regularly check that the **control unit (pan)** and/or the **motor handy box** are properly closed.
- **9.** Ensure that the **hopper cover grill or cover** on the 100 kg hopper **closes properly**.
- **10.** The standard winching system is **only suitable for height regulation** during the flock's stay and **winching up for cleaning** (1x per flock). For more frequent winching, use the **daily winching components**.



This **SYMBOL** will be used to draw your attention to matters that are of **GREAT IMPORTANCE** for your **SAFETY**.

It means : **WARNING** - follow the safety instructions :

disconnect the current - re-read the safety rules.

In short: **BE ALERT**. IGNORING these instructions can cause

SERIOUS INJURIES or even DEATH.

DIRECTIONS FOR OPERATING THE SYSTEM

PUTTING THE SYSTEM INTO USE

The oil on the new auger and the tubes will slow up feed transport at the beginning.

When using a new feeder line for the first time, fill up the hopper with 25kgs of feed.



NEVER PUT YOUR HANDS INTO THE FEED INTAKE BOOT WHILE FILLING THE PANS.

DANGER

Switch on the feeder until this feed is distributed. Repeat this procedure until the whole line is filled. By doing so:

- you limit the load on the motor of a long feeder line.
- at the same time, you test the switches and make sure that the feeder line has been properly installed.
- you become used to the system.

If instead there are small marks of rust either on the inside of the tube as on the auger, we advise to mix the first 5kg of feed with a portion ($| ^1/_4$ I) of maize oil. This to avoid the noise and trembling during the starting up.

CONTROL UNIT

The last feeder pan on the line (the control pan) is the most important one. It must be emptied first because it starts the next feed supply. Take care that there are enough birds eating from this pan.

Birds are sensitive to light, moisture, draught and temperature. They will shun places with an environment deviating from the average.

Keep the pan free of litter and manure. It has to be the most attractive pan on the line. Take care that temperature, moisture, ventilation are constant at this location.

More birds will feed from the control pans if you install them at a distance of 2-3m from the end wall. The same remark goes for the outside line (next to the side walls).

<u>OPTION</u>

In order to make the control pan more attractive for the birds, Roxell offers a LED light kit which fits on the CoMeo both for intermediate and end control units.

This light is positioned inside the control unit which ensures an optimal light dispersion inside the feeding pan. Attracting the birds to the control unit will guarantee a completely filled feeding line and feeding pans.

Inform the technically trained person:

- to connect the LED light to the light in the house, ensuring the LED and house lights are lit simultaneously, or
- For **US**: to connect the LED light to the motor, ensuring the LED light is lit when the motor is in operation.

FILLING THE HOPPERS

The drop tube of the feeder line furthest from the bin is equipped with a level switch.

This level switch controls the feed supply from the bin. If, for certain reasons, the last line is not enough used by the birds, it is possible that the other lines might run empty. This can be prevented by using a time clock.

The time clock should be set such that the feeder is regularly emptied or decreased to a low feed level.

However, you can help to ensure that enough birds eat from the last line by taking care of:

- ventilation
- house structure
- insulation
- litter
- distribution of feeders and drinkers.

When planned correctly, you will have a very even spread of the birds over the whole floor area of the house.

USING THE SYSTEM WITH ONE DAY OLD CHICKS

1. Suspend the 100kg hopper at the correct height.

The weight of the filled hopper will stretch the main cable to which the chain is fixed when the installation is new.

The connection between the hopper and the first feeder tube will then no longer be level. This can result in premature wear and/or failures.

If necessary, shift suspension one or more links to level the line.

When a hopper support is available:

- it enables correct and easy positioning of the hopper,
- this way premature wearing out of the tubes is avoided.
- it prevents the first pan from collapsing, and the following pans can be used optimally
- 2. Put ALL pans on the floor before placing the one day olds. Then scatter the litter around the pans.

Take care that all feed windows open simultaneously and completely.

Now the suspension cords of the tubes are suitably stretched.

As the pans sink deeper into the litter after a few days, the windows will remain completely open.

The suspensions of hopper and control unit must also be suitably stretched.

3. Warm up the house and the litter at least 24 hours before placing the birds.

Fill all pans with feed.

One pan with open windows holds about 1,050kg - about 0,7kg with closed windows.

The feeder line starts automatically as soon as the control pan is empty, so all pans are filled.

You can feed automatically from the first day on.

 The point in time to operate with closed feed windows will depend upon the starting weight of the day old chicks (DOC).

We recommend to close the feed windows between the the 5th. and the 7th. day depending on this starting weight.

Winch up the feeder line until all windows are closed.

Attention: all pans are still sitting on the floor!

Birds get used to the lower feed level. Raise the feeder lines a little some days after closing the feed windows. Pans swing and the feed is better spread.

Winch up the feeder lines gradually as the birds grow.

The back/neck of the birds (even the smallest) must be slightly bent over while eating.

Correct operation will help you to prevent feed waste.

USING THE SYSTEM FOR OLDER BIRDS

Suspend the lines at the correct height. You will obtain optimum results when the birds can easily pick the feed from the deepest part of the pan.

If birds necks rest on the edge of the pan, the feeder line is adjusted too high.

On the contrary, if birds perch on the edge of the pan, the line is adjusted too low.

You will prevent feed waste by keeping the pans at the correct height!

The correct position of the feed level ring will be found by experience.

You must consider feed composition, fat content and type of birds.

Optimum feeding results will be obtained with adequate pan height, correct adjustment of the feed level ring.

The 100kg. hopper should be filled before starting the lines. So the transport system has a head start to supply the hoppers.

AT THE END OF A FLOCK

Have all pans emptied at the end of the flock. Also ensure that all feed is removed from the tubes.

Winch up the complete installation to remove birds and manure.



DANGER

NEVER STAY UNDERNEATH WHEN LOWERING OR WINCHING UP THE FEEDER LINES. STOP IMMEDIATELY AT THE SLIGHTEST HITCH.

Take care not to damage the pans (with heavy objects or machines) when cleaning out the house.

CLEANING

To clean the installation winch up the feeder lines to a working height of about 1m.

Remove possible feed residues by turning the pans a couple of times 180 degrees around the tubes or by removing the pans from the 12 fin support.

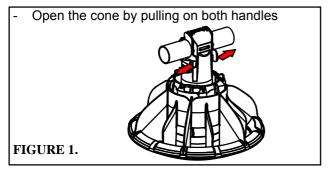
You can now easily clean the rotating pans one after another by means of a high pressure cleaner.

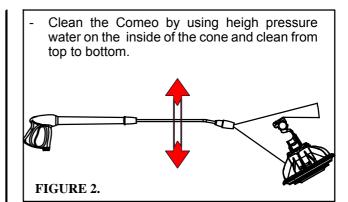
To put back the pan: take it in one hand (like a dish) and push it into the 12 fin support from below.

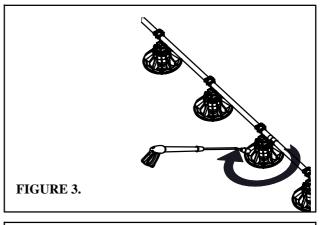
With the other hand, hold the feed level ring so that the 12 fin support cannot go up.

ONLY FOR COMEO WITH CLEANING OPTION:

Follow the steps below when using the cleaning option.







- For closing the cone: turn the feeder 180 degrees around the feeding tube. Important to hear 2 clicks.

FIGURE 4. FIGURE 5.

DON'T FORGET TO COVER UP THE CONTROL PAN WITH PLASTIC!

Motors and switches are IP55. This means that they resist splashing, NOT jets from a high pressure cleaner.

After cleaning, tip the water out of the pans.

Take care that no water remains in the feed intake boot (corrosion !!!) You can avoid this :

- by loosening the tube clamp and turning the feed intake boot with the opening downwards before you use the high pressure cleaner, or
- by hanging up the feed intake boot, so that all remaining water flows away through the hole in the tube. This method requires an extra suspension point next to the 100kg hopper or fixing the hopper suspension chain to the feed intake boot.

The pan, made of high quality polypropylene, resists practically all cleansers and disinfectants.

If you want to use an aggressive product (**) first contact your supplier!!

Hang the **OPERATION INSTRUCTIONS** at a spot inside the house where it catches the eye.

(**) P.S. Gaseous formaldehyde (formalin), liquid caustic soda or solution of caustic soda, hypochlorite or chlorine water cresoles are very corrosive and they will quickly affect the installation!

WHAT TO DO BEFORE INSTALLING THE NEXT BATCH OF BIRDS?

Check operation of your system before placing the birds. More particularly, take care that :

- all feed level tubes are at the same level (always keep feed level as low as possible)
- all switches react promptly the control pans are properly adjusted (low feed level).
- the poultry perch wire is still stretched (springs must be stretched (about 6cm)
- the time clock (when used) is programmed
- there are no leaks in the feed supply system
- there is no old, stale and/or tainted feed in the bin
- the feeder lines are well aligned. Especially the power unit and the hopper must be well aligned and at the same level.

PROGRAMMED FEEDING

With the feeding system it is possible to programme feeding. This means: feeding according to a programme set on a time-clock.

It also means : to make sure that no feed is supplied during certain periods.

Pans are emptied between meals (if you want this).

ADVANTAGES:

- 0 to 4 points better feed conversion :
 - birds waste less feed (lower feed level).
 - fresh feed available at several preset times = more resting periods; a better digestion; more appetite.
 - you can observe birds better during the feeding time Sick birds are more easily identified.
- the system works more regularly (less switching on/off).
- less risk that the system runs empty. You have better control of the system's performance.

HOW TO PROGRAMME:

There are many ways.

Your house, the breed of birds, the feed you choose and the possibilities you have as a user, determine the best programme.

The purpose is always the same : divide the 24 hour period in 4 segments of 6 hours.

Each segment has 3 periods: is characterized by a period of:

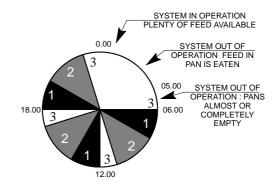


FIGURE 6.

Our experiences have lead to the following recommendations of use :

- Set the programme right from the beginning .
- See that pans are emptied for the first time after 3 weeks, not sooner. Divide the 24 h in 4 segments of 6 hours.
- Since the birds do not eat for 1/2 hour to 2 hours, there is more activity at the start of a new segment. This means that the occupation per pan and per drinker should not exceed our recommendations.
- You have to gain experience. Do not expect to obtain 4 points better feed conversion from the first time.
- During the summer it might get colder in the house during the night. Adjust your programme by having the system operate longer during the night segment.
- Do not programme with poor quality birds. Interrupt the programme in case of illness and do not let the system become empty.
- Influences of season, breed, age, house climate, feed also play a role.

To get the maximum profit out of your system, you should develop your own programme according to the circumstances.

For any further advice, contact ROXELL.

OPTION: ADJUSTER RING REGULATOR - 09717153 FIGURE 7.

MAINTENANCE INSTRUCTIONS				
Switch off the main switch first. Use personal protective equipment. DANGER	3-monthly	6-monthly	Yearly	
ACTIONS IN GREY BACKGROUND MUST BE DONE BY A TECHNICALLY TR	AINED PE	RSON.		
1. Power unit				
- Make fan dust-free			Х	
- Check possible damages to electrical wiring			Х	
2. Drive unit (circuits)				
- Make fan dust-free		Х		
- Check possible damages to electrical wiring			Х	
- Clean gear housing			Х	
Poultry intake boot with sensor				
- Check sensor			Х	
4. 100kg hopper (lines)				
- Check level switch			Х	
5. Suspension				
- Check operation of (central) winch	Х			
- Check operation of (central) winch. Grease after cleaning.			Х	
- Check connection of cable	Х			
- Check connection of pulleys	Х			
- Check suspension of tubes and motors	Х			
- Keep suspension cord/cable in tension	Х			
Poultry perch cable above the tubes/elbows				
- Check cable			Х	
7. Sensors/switches				
- Check operation of safety switch or sensor.		Х		
- Check electrical wiring			Х	
8. Feed intake boot				
- Clean			Х	
- Check possible wear of plastic gear			Х	
9. Lines/circuits				
 Check screws and bolts in the system after the first month and after each batch. Tighten if necessary. 	Х			
- Keep tubes level.	Х			
 Remove all feed from the system when the system will be out of use for a period. 	Х			

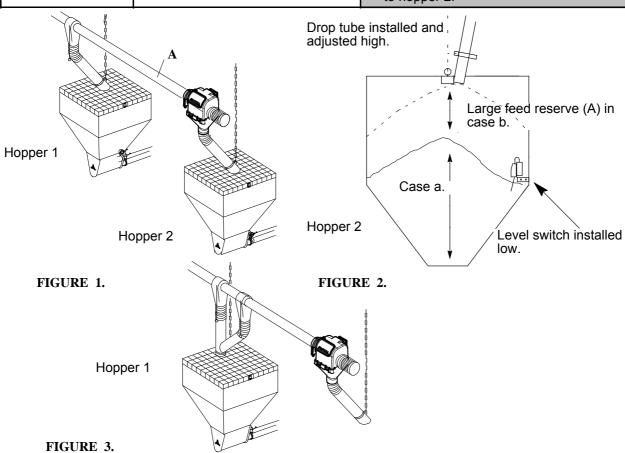
TROUBLE SHOOTING GUIDE

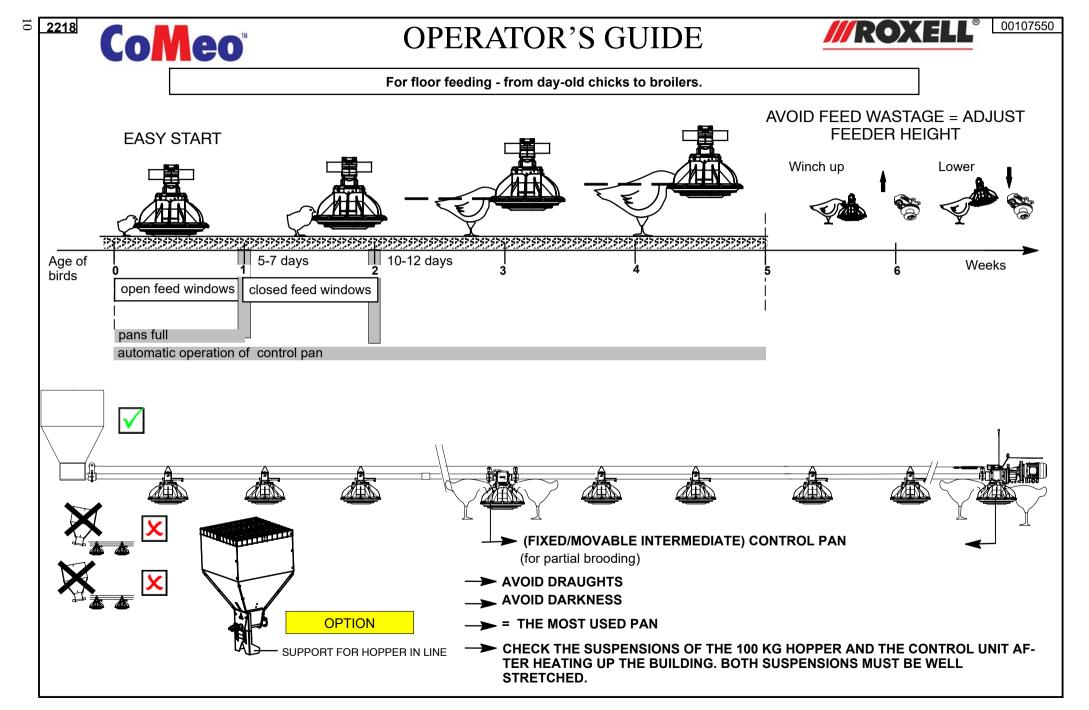


Switch off the main switch first. Use personal protective equipment.

ACTIONS IN GREY BACKGROUND MUST BE DONE BY A TECHNICALLY TRAINED PERSON.					
PROBLEM	CAUSE	CORRECTIVE ACTION			
1.None of the feeder lines run.	No current.	Replace defective fuses or reset circuit breakers. Check current supply to the house.			
	Defective time clock.	Replace defective clock.			
	Time clock not properly set.	Readjust tabs.			
2.One/more lines do not run.	Wires from motor damaged.	Measure current in motor wires. Replace wires if defective.			
Pans are empty	Motor protection switched off.	See points 3. & 4. Reset motor overload button.			
	Defective sensor/minimum switch control unit or 100kg hopper.	Check control unit sensor or switch. Replace if necessary.			
Motor is often overloaded.	Oil on auger overloads the motor.	Clean the auger by running repeatedly 25kgs of feed through the line.			
	Not enough current supply to the motors.	Check current supply at motor location. Start the motor. Measure start current on motors. Wiring must be thick enough to guarantee good operation of the system.			
	Object blocks the auger. Motor runs, then stalls. Feed sticks to the tubes.	Check if there are no objects in the boot, the control unit and the drop holes of the feeder pans. Remove any objects.			
4.Auger stalls.	Anchor bearing worn out or broken.	Replace bearing. Gently slide auger back into the tubes. Don't let it jump back : your finger or the bearing could be damaged .			
	Auger not enough stretched.	Shorten the auger.			
	Object blocks the auger.	Remove the object.			
5.Tubes / boot wear rapidly, much noise when system runs.	Auger kinked or bent at the wear point. Auger end overlaps the anchor end.	Make sure not to kink the auger when using gripping pliers. Auger must not overlap the anchor end.			
6.Not enough feed supplied to fill up	Flex-Auger drop holes are too small or point upwards.	Make holes wider/turn tubes with holes downwards.			
the lines.	Flow regulator in boot of feed supply system blocks passage of the feed.	Adjust flow regulator to get a higher capacity.			
	Flex-Auger capacity is too low.	Check the capacity of the Flex-Auger according the specifications.			
		Check the installation of the Flex-Auger.			
	Not enough time set on the time clock.	Extend operation time per meal.			
7.Feed drops directly on the 12 fin support.	Pan not installed over the hole.	Remove the top support. Install the pan ass'y over the hole and the lips.			

PROBLEM	CAUSE	CORRECTIVE ACTION
8.Windows are open and feed level is too low.	Some windows are actually closed.	Adjust height of feeder line until all windows completely open and close simultaneously.
9.Windows are	Adjuster ring set too high.	Adjust height. See OPERATOR'S GUIDE.
closed and feed level is too high.	Not all windows are closed or completely closed.	Adjust height of feeder line until all windows completely open and close simultaneously.
10.Windows are	Adjuster ring set too low.	Adjust height. See OPERATOR'S GUIDE.
closed and feed level is too low.	Feeder line not winched up high enough.	Winch up feeder line higher until all pans simultaneously are clear of the litter.
11.Hopper 1 is empty while the feed level in the second hopper corresponds with the position of the level switch	Birds massively move to one side of the house, i.e. depending upon the position of the sun.	A. The problem occurs sporadically: You can solve the problem by changing the round hole in the Flex-Auger tube above hopper 1 into a rectangular one. Install two outlet drops above hopper 1 (see fig. 3.) if necessary, so that more feed drops into hopper 1. Install the level switch low in hopper 2 (see fig. 2.). Install and adjust drop tubes to all hoppers high enough. B. The problem occurs regularly: Install a level switch high in each hopper. Install the level switch low in the last hopper. Install and adjust the drop tube high, so that the feed in tube A (over switch level) is carried to hopper 2.





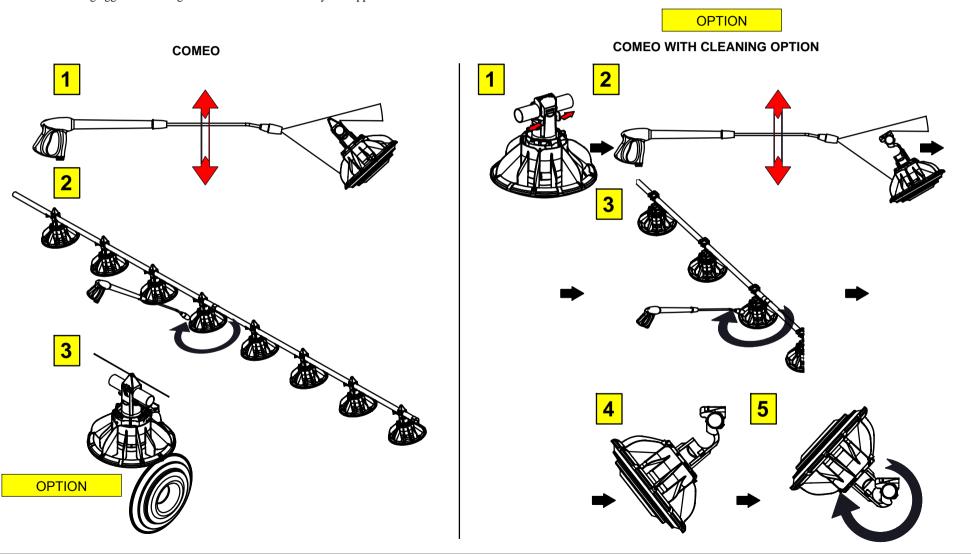
00107550

CoMeo*

CLEANING



- * The last day: run the tubes empty and let the birds empty the pans as much as possible.
- * Remove possible feed residues by turning the pans a couple of times 180 degrees around the tubes or by removing the pans from the 12 fin supports.
- * Protect electrical components against water.
- * Clean the whole system by means of a high-pressure cleaner (max. 100 Bar).
- * When using aggressive detergents or disinfectants consult your supplier.







Inbouwverklaring betreffende niet voltooide machines (Richtlijn 2006/42/EG, Bijlage II.1.B) Declaration of incorporation of partly completed machinery (Directive 2006/42/EC, Annex II.1.B)

Fabrikant/Manufacturer: Roxell, Industrielaan 13, 9990 Maldegem

Tel: +32 50 72 91 72 Fax: +32 50 71 67 21

Verklaart geheel onder eigen verantwoordelijkheid dat het product: Declares on its own responsibility that the product:

MiniMax/HaiKoo/CoMeo Nr: 001.../002.../009... Automatisch pannen voedersysteem voor vleeskuikens. Automatic pan feeding system for broilers.

Waarop deze verklaring betrekking heeft, in overeenstemming is met:

- de volgende richtlijnen: 2006/42/EG (Machinerichtlijn); 2014/30/EU (Elektromagnetische Compatibiliteit).
- de geharmoniseerde Europese Normen: EN ISO 13857; EN 349; EN ISO 12100; EN 60204-1;
 EN 61439-1; EN 61439-2

Het is verboden bovengenoemd product in gebruik te stellen voordat de machine waarin het wordt ingebouwd in overeenstemming met de bepalingen van de Machinerichtlijn is verklaard.

Tevens verbindt de fabrikant (of zijn gemachtigde) zich om op met redenen omkleed verzoek van de nationale autoriteiten de relevante informatie over deze niet voltooide machine door te geven. De wijze van doorgifte is digitaal. De wijze van informatieverschaffing laat de intellectueeleigendomsrechten van de fabrikant van de niet voltooide machine onverlet.

(NL)

Relating to this declaration is in accordance with

- The following directives 2006/42/EC (Machinery Directive); 2014/30/EU (Electromagnetic Compatibility).
- The harmonised European standards: EN ISO 13857; EN 349; EN ISO 12100; EN 60204-1; EN 61439-1; EN 61439-2

This product must not be put into service until the machinery into which it is to be incorporated has been declared in conformity with the provisions of the Machinery Directive.

The manufacturer (or its agent) also undertakes, at the duly reasoned request of the national authorities, to provide the relevant information concerning this partly completed machinery. The method of transmission will be digital. The manner in which the information is provided does not prejudice the manufacturer's intellectual property rights concerning the partly completed machinery.

(EN)

Les	
Dhr. Gino Van Landuyt Managing Director	
	built-in subparts are delivered by Roxell"
EG-verklaring van overeenstemming (Richt EC-declaration of conformity (Directive 2000)	
Wij/We	, -, -, -, -, -, -, -, -, -, -, -, -, -,
(naam installateur/name fitter)	
(volledig adres en land/complete addre	<u>ess)</u>
Verklaren geheel onder eigen verantwoording d Declare completely on own justification that	le
(naam machine/name machinery)	(nummer CE-label/number CE-label)
In een installatie te hebben ingebouwd geheel v overeenstemming met de bepalingen van de Ma	achinerichtlijn.
Has been incorporated in conformity with the p	rovisions of the Machinery Directive and the
prescriptions of Roxell bvba.	

Place Date: Maldegem 01/01/2020

De EG-verklaring van overeenstemming / inbouwverklaring betreft uitsluitend de machine of niet voltooide machine in de toestand waarin zij op de markt is gebracht, met uitsluiting van de later bijvoorbeeld door de verdeler en/of installateur en/of eindgebruiker toegevoegde componenten en/of verrichte bewerkingen.

The EC-declaration of conformity / declaration of incorporation relates exclusively to the machinery or partly completed machine in the state in which it was placed on the market and excludes components which are added and/or operations carried out thereafter for instance by the distributor and/or the installer and/or the final user.



EG-verklaring van overeenstemming (Richtlijn 2006/42/EG, Bijlage II.1.A) **EC-declaration of conformity** (Directive 2006/42/EC, Annex II.1.A)

Fabrikant/Manufacturer:

Roxell, Industrielaan 13, 9990 Maldegem

Tel: +32 50 72 91 72 Fax: +32 50 71 67 21

Verklaart geheel onder eigen verantwoordelijkheid dat het product: Declares on its own responsibility that the product:

Winching system Nr: 00102368 / 00102087 Liersysteem voor voer- en drinklijnen; manueel en gemotoriseerd Winching system for feed- and drink lines; manual and motorised Nummer CE-label/number CE-label :

Waarop deze verklaring betrekking heeft, in overeenstemming is met:

- de volgende richtlijnen: 2006/42/EG (Machinerichtlijn); 2014/30/EU (Elektromagnetische Compatibiliteit).
- de geharmoniseerde Europese Normen: EN ISO 13857; EN 349; EN ISO 12100; gemotoriseerd: EN 60204-1; EN 61439-1; EN 61439-2

De EG-verklaring van overeenstemming / inbouwverklaring betreft uitsluitend de machine of niet voltooide machine in de toestand waarin zij op de markt is gebracht, met uitsluiting van de later door bijvoorbeeld de verdeler en/of installateur en/of eindgebruiker toegevoegde componenten en/of verrichte bewerkingen.

(NL)

Relating to this declaration is in accordance with

- The following directives 2006/42/EC (Machinery Directive); 2014/30/EU (Electromagnetic Compatibility).
- The harmonised European standards: EN ISO 13857; EN 349; EN ISO 12100; motorised: EN 60204-1; EN 61439-1; EN 61439-2

The EC-declaration of conformity / declaration of incorporation relates exclusively to the machinery or partly completed machine in the state in which it was placed on the market and excludes components which are added and/or operations carried out thereafter for instance by the distributor and/or the installer and/or the final user.

(EN)

Plaats, Datum / Place, Date: Maldegem, 01/01/2020

Dhr. Gino Van Landuyt
Managing Director



PART II COMPONENTS

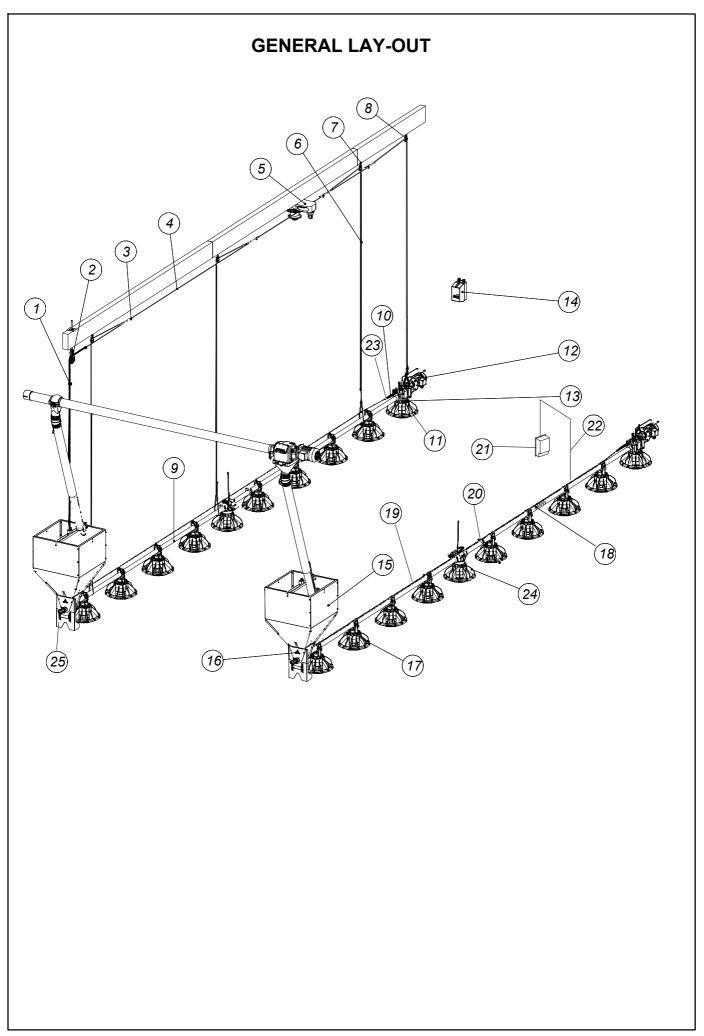
Environmentally-friendly design

The motors comply with the Ecodesign legislation.

Communication

For all communication concerning parts/spare parts refer to the appropriate part number (not part name).

COMEO - COMPONENTS ROXELL - 009 - 2416

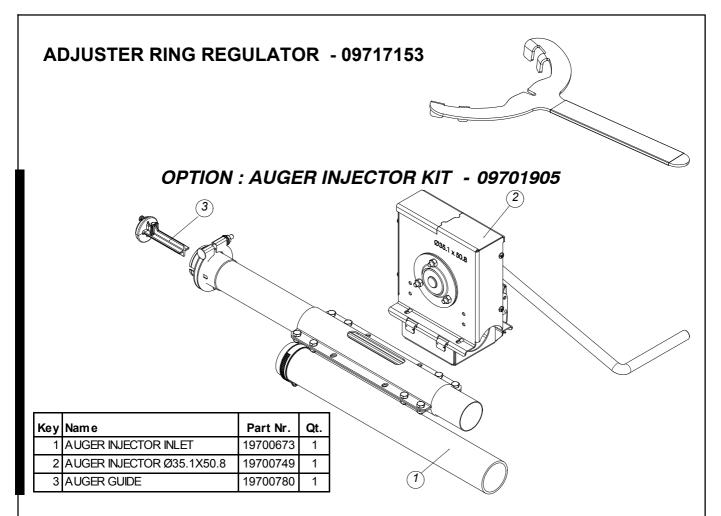


ROXELL - 001 - 2119 COMEO - COMPONENTS

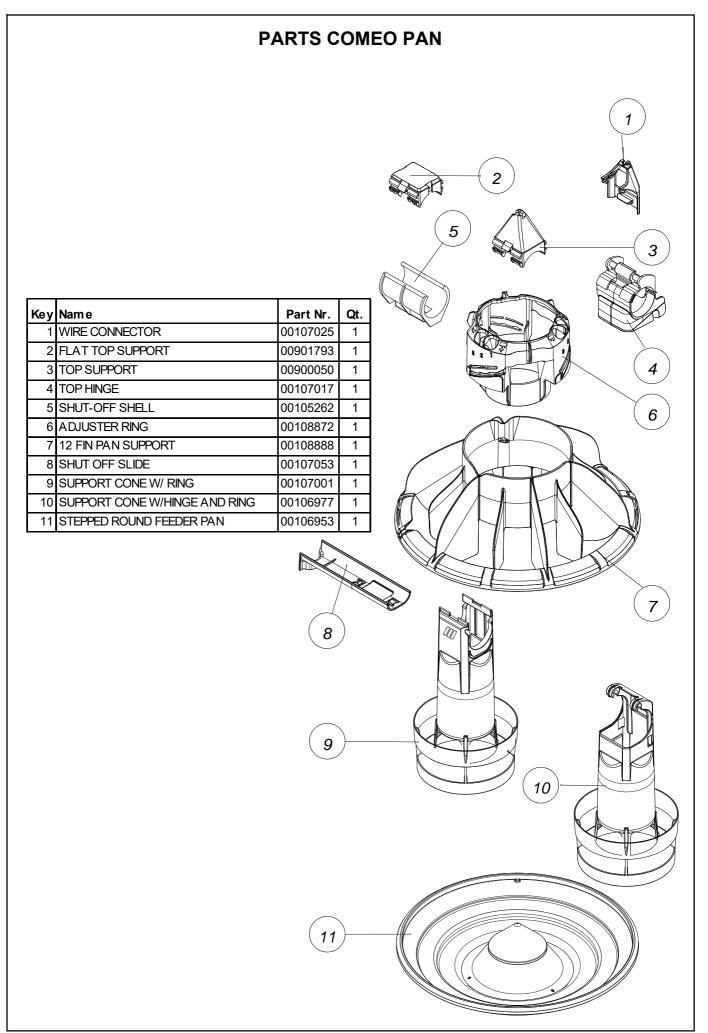
COMPONENT NUMBERS

Key	Name	Number
1	CHAIN DIAM. 3.5 mm	00100750
2	HEAVY DUTY PULLEY	00100412
3	CABLE CLAMP NO. 5	00100545
4	CABLE DIAM. 5 mm	00100388
5	HAND OPERATED CENTR. WINCH	00102368
6	SUSPENSION CORD	00100610
7	SCREW HOOK 90 mm	05000872
	SCREW HOOK 160 mm	05000237
8	SMALL PULLEY WITH STAINLESS STEEL HOOK	00104349
9	TUBES	SEVERAL
10	SPRING	00400077
11	ANCHOR BRACKET	00102681
12	POWER UNIT	SEVERAL
13	CONTROL PAN	SEVERAL
14	MOTOR STARTER	SEVERAL
15	100KG HOPPER	00100602
16	FEED INTAKE BOOT POULTRY	00106500
	POULTRY INTAKE BOOT WITH SENSOR - 230 V AC	00108952
	POULTRY INTAKE BOOT WITH SENSOR - 24 V DC	00108950
17	FEEDER PAN	SEVERAL
18	AUGER	00100974
19	CABLE - 1/16" - 1.5MM - 250M	00106839
	CABLE - 1/16" - 1.5MM - 500M	00106831
20	TUBE CLAMP ASSY DIAM. 45 mm	00102921
21	POULTRY PERCH GUARD	00105692
22	CABLE FOR PERCH GUARD - 50M	00106847
	CABLE FOR PERCH GUARD - 100M	00106855
23	DUPLEX CABLE CLAMP ST. ST 3MM	00106945
24	INTERMEDIATE CONTROL PAN	SEVERAL
25*	SUPPORT FOR HOPPER IN LINE	00108014
*	OPTION	

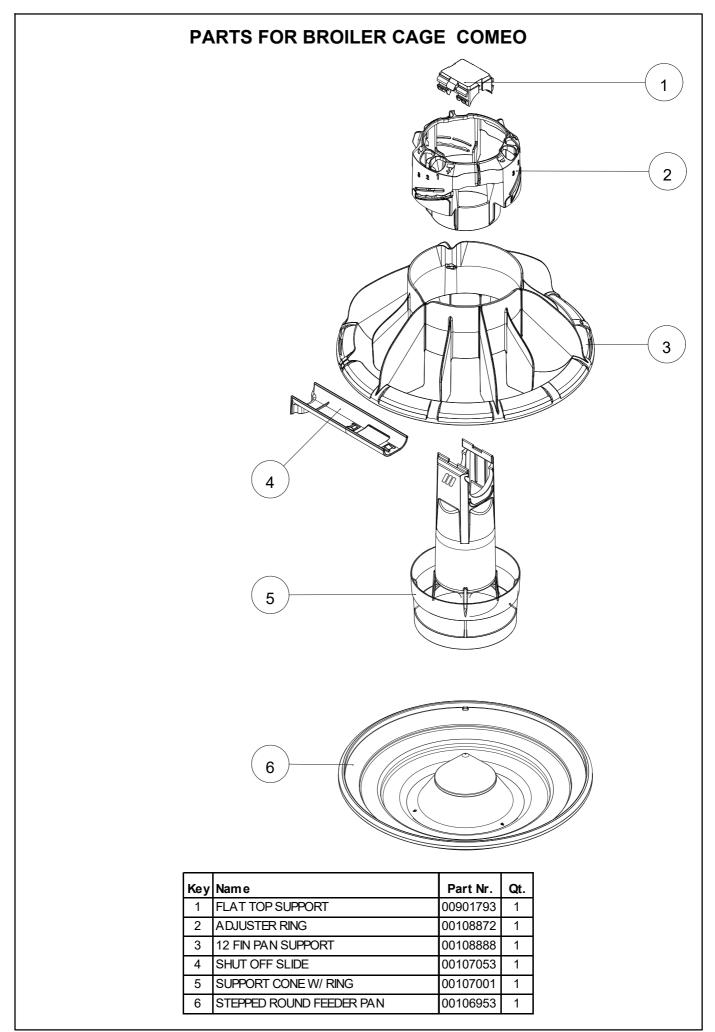
COMEO - COMPONENTS ROXELL - 009 - 0717



ROXELL - 001 - 4918 COMEO - COMPONENTS



COMEO - COMPONENTS ROXELL - 001 - 4918



ROXELL - 001 - 4918 COMEO - COMPONENTS

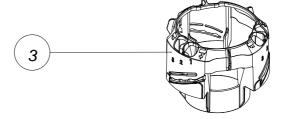
PAN PARTS FOR COMEO (FLOOR FEEDING) Key Name Part Nr. Qt. TOP SUPPORT 00900050 ADJUSTER RING 00108872 12 FIN PAN SUPPORT 00108888 1 SHUT OFF SLIDE 00107053 SUPPORT CONE W/ RING 00107001 STEPPED ROUND FEEDER PAN 00106953 5

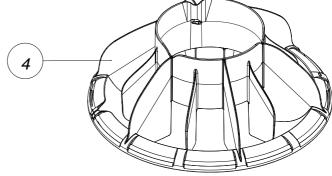
COMEO - COMPONENTS ROXELL - 001 - 4918

COMEO PANS (CLEANING OPTION + POULTRY PERCH GUARD)

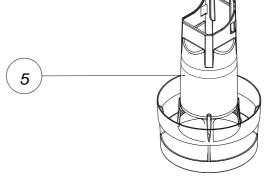


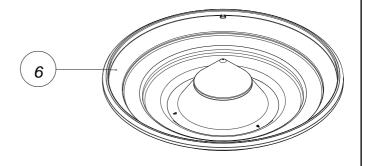




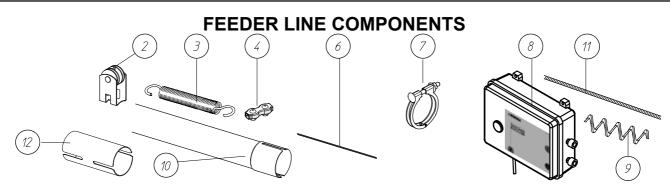


Key	Nam e	Part Nr.	Qt.
1	WIRE CONNECTOR	00107025	1
2	TOP HINGE	00107017	1
3	ADJUSTER RING	00108872	1
4	12 FIN PAN SUPPORT	00108888	1
5	SUPPORT CONE W/HINGE AND RING	00106977	1
6	STEPPED ROUND FEEDER PAN	00106953	1





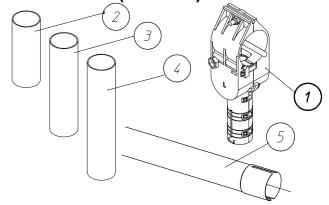
ROXELL - 009 - 4018 COMEO - COMPONENTS



Key	Nam e	Part Nr.	Key	Nam e	Part Nr.
2	ANCHOR BRACKET - LOW	00102681	10	TUBE 2.74M W/1 RECTANG'R HOLE	00104182
3	SPRING	00400077		TUBE 2.74M W/2 RECT. HOLES	00104174
4	DUPLEX CABLE CLAMP ST.ST 3 MM	00106945		TUBE 2.74M W/3 RECTANG'R HOLES	00104166
6	CABLE 1/16" - 1.5 MM - 250 M	00106839		TUBE 2.74M W/4 RECTANGULAR HOLES	00104141
	CABLE 1/16" - 1.5 MM - 500 M	00106831	11	CABLE F. PERCH GUARD - 50 M	00106847
7	TUBE CLAMP ASSEMBLY Ø45 MM	00102921		CABLE F. PERCH GUARD - 100 M	00106855
8	POULTRY PERCH GUARD	00105692	12	TUBE CONNECTOR DIA. 45 MM	00100552
9	AUGER PF/ATF	00100974			
10	TUBE 2.90 M WITHOUT HOLES	00500074			
	TUBE 2.9 M W/3 RECTANGULAR HOLES	00101121			
	TUBE 2.9 M W/4 RECTANGULAR HOLES	00101113			
	TUBE 3.05M W/4 RECTANGULAR HOLES	00102301			
	TUBE 3.05M W/3 RECTANGULAR HOLES	00102293			

CHICK STARTER OUTLET ASS'Y KIT (OPTION)

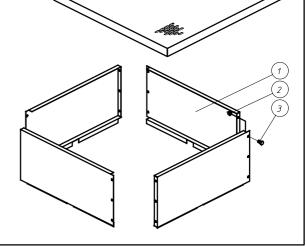
Key	Name	Part Nr.
1	CHICK STARTER OUTLET ASS'Y KIT (50PCS)	A44869-50
	CHICK STARTER OUTLET ASS'Y KIT (20PCS)	A44899-20
2	EXTENSION TUBE 84 MM (50PCS)	41357-50
	EXTENSION TUBE 84 MM (20PCS)	41357-20
3	EXTENSION TUBE 122 MM (50PCS)	49800-50
	EXTENSION TUBE 122 MM (20PCS)	49800-20
4	EXTENSION TUBE 152 MM (50PCS)	49556-50
	EXTENSION TUBE 152 MM (20PCS)	49556-20
5	TUBE 2.74M W/4+4 RECT HOLES	00104158
	TUBE 3.05M W/4+4 RECT. HOLES	00104133
	TUBE 3.05M W/4+1 RECT. HOLES	00108264
	TUBE 2.74M W/4+1 RECHT.HOLES	00108272



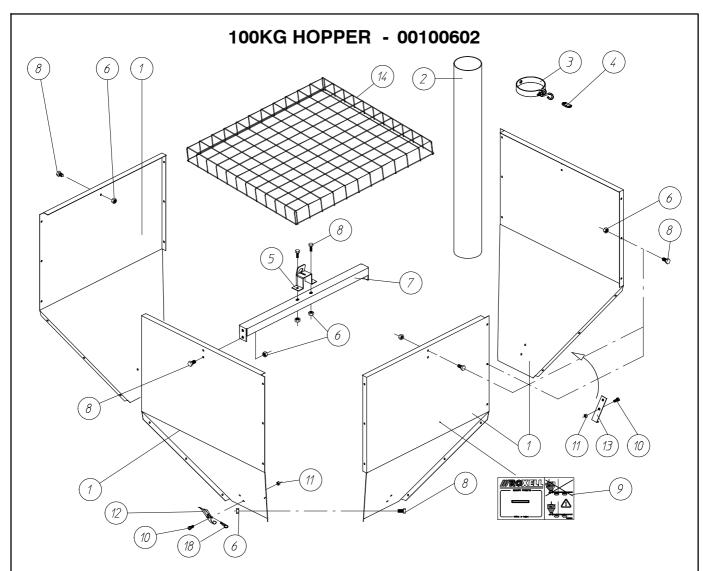
STRAINER FOR 100KG HOPPER - 00100982



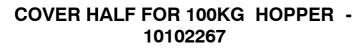
Key	Name	Part Nr.	Qt.
1	HOPPER EXTENSION SIDE	10104719	4
2	NUT M6 - DIN 934	20100210	12
3	BOLT M6 X 12 - DIN 933-8.8	20100160	12

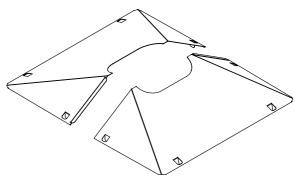


COMEO - COMPONENTS ROXELL - 009 - 4016

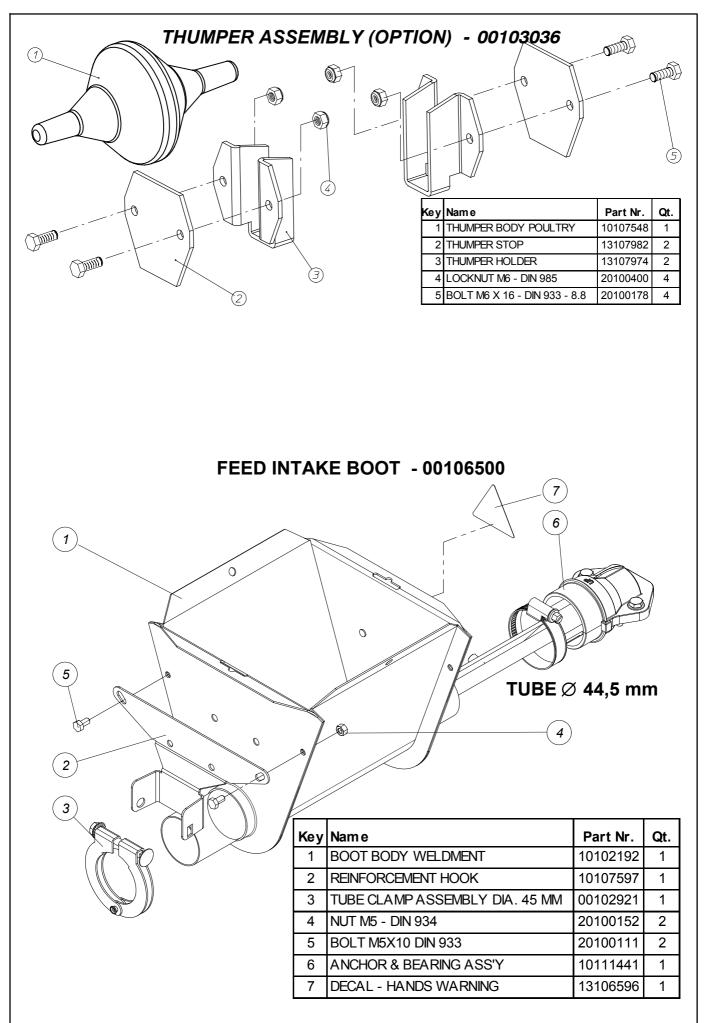


Key	Nam e	Part Nr.	Qt.	Key	Nam e	Part Nr.	Qt.
1	HOPPER SIDE	10102259	4	9	PATENT DECAL COM-ATF-MINIMAX	10103893	1
2	PVC TUBE DIAM. 90 - L = 700 MM	10102382	1	*10	SCREW M4x10-DIN 84 - 4.8	20100806	8
*3	TUBE SUPPORT ASS'Y	10102390	1	*11	NUT M4	20100681	8
*4	SCREW LINK DIA. 3.5	10203156	1	*12	FASTENER 30-1056 MSZN	10201697	1
*5	HOPPER HOOK	10105393	1	*13	FASTENING HOOK	10102200	1
*6	NUT M6 - DIN 934	20100210	34	14	HOPPER COVER GRILL	10103075	1
7	HANGER	10102291	1	*18	SPRING COTTER ø2	20100749	1
*8	BOLT M6 X 12 - DIN 933-8.8	20100160	34	*	HARDWARE KIT	10102341	1





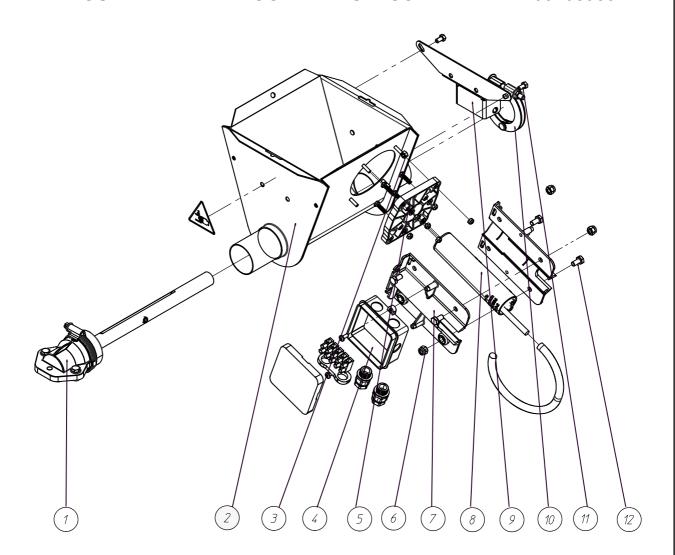
ROXELL - 009 - 4016 COMEO - COMPONENTS



COMEO - COMPONENTS ROXELL - 001 - 2119

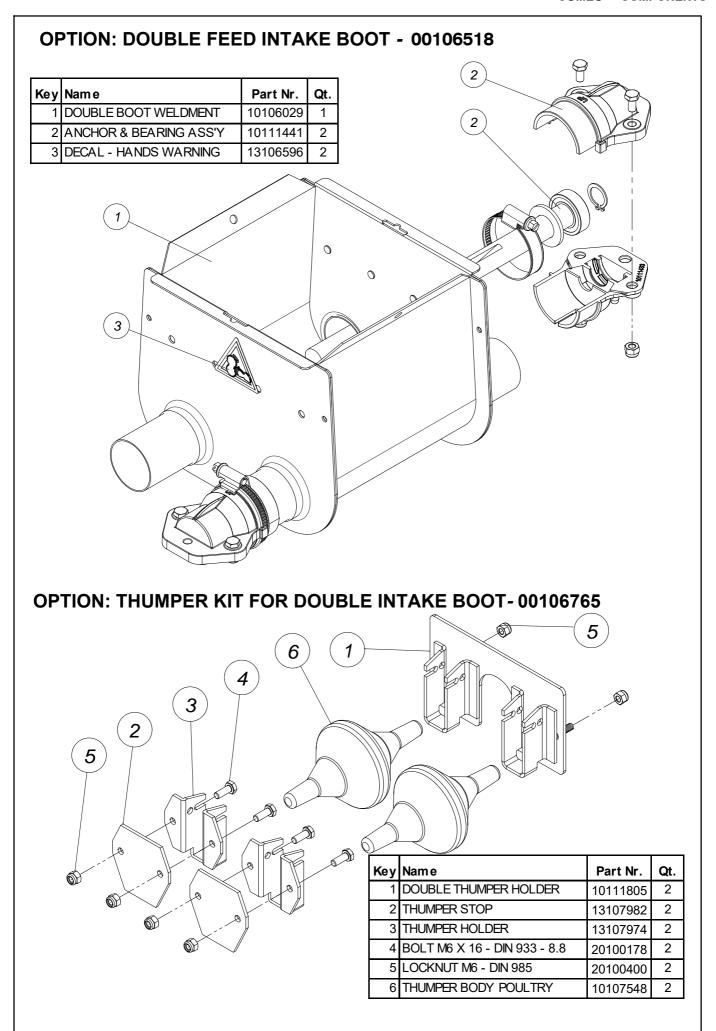
* POULTRY INTAKE BOOT WITH SENSOR - 230 V AC - 00108952

** POULTRY INTAKE BOOT WITH SENSOR - 24 V DC - 00108950



Key	Nam e	Part Nr.	Qt.
1	ANCHOR & BEARING ASS'Y	10111441	1
2	BOOT BODY WELDM F/SENSOR	10112428	1
3	NUT M5 - DIN 934	20100152	2
4	HANDY BOX OBO A8	15000037	1
5	SENSOR DISTANCE PIECE 80 MM	10112436	1
6	LOCKNUT M6 - DIN 985	20100400	4
7	SENSOR HOLDER	13000443	2
*8	SENSOR VC12RT230106821 S3 D1	03103678	1
**8	SENSOR V C12 RTM24106821-2 24-230V A C/DC	03104586	1
9	REINFORCEMENT HOOK	10107597	1
10	TUBE CLAMP ASS'Y ø45	10112037	1
11	BOLT M5X10 DIN 933	20100111	2
12	BOLT M6X12 - DIN 933-8.8	20100160	4

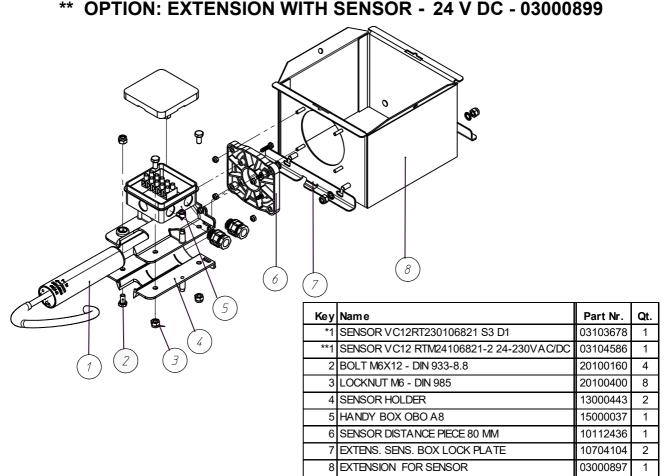
ROXELL - 001 - 2119 COMEO - COMPONENTS



ROXELL - 001 - 2119 COMEO - COMPONENTS

* OPTION: EXTENSION WITH SENSOR - 230 V AC - 03000901





CONTROL UNIT COMEO WITH SWITCH - 00107326

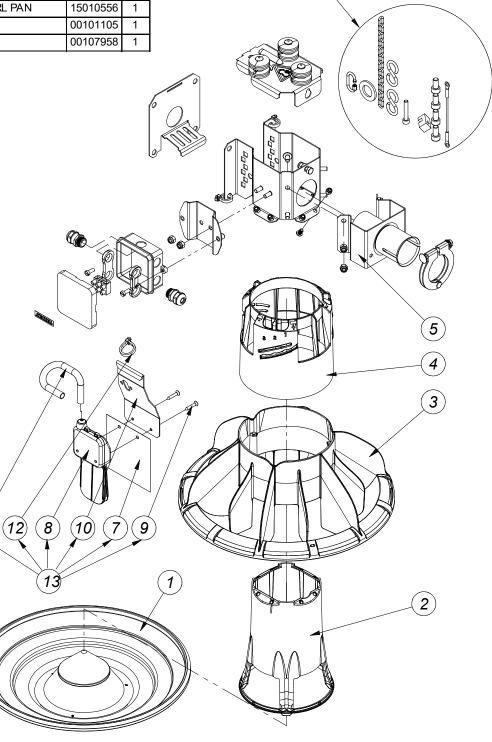
Key	Nam e	Part Nr.	Qt.
1	STEPPED ROUND FEEDER PAN	00106953	1
2	SUPPORT CONE F/ CONTROL PAN	00107076	1
3	12 FIN PAN SUPPORT	00108888	1
4	ADJUSTER RING F/ CONTROL PAN	00108896	1
5	TUBE BRACKET ASS'Y	10111893	1
6	HARDWARE KIT	10900322	1
7	SWITCH SHIELD	10111941	1
8	LEVEL SWITCH ASS'Y	13104500	1
9	WOOD SCREW PK Ø4X25-GALVANIZED	20108924	2
10	SUPPORT PLATE FOR LEVEL SWITCH	10111933	1
11	FLEXTUBE KIXoo/VIToo CTRL PAN	15010556	1
12	HINGE JOINT	00101105	1
13	LEVEL SWITCH COMPLETE	00107958	1

(11)

00109136: CONNECTION BOX KIT CONTR. PAN For US only; to be ordered separately

6

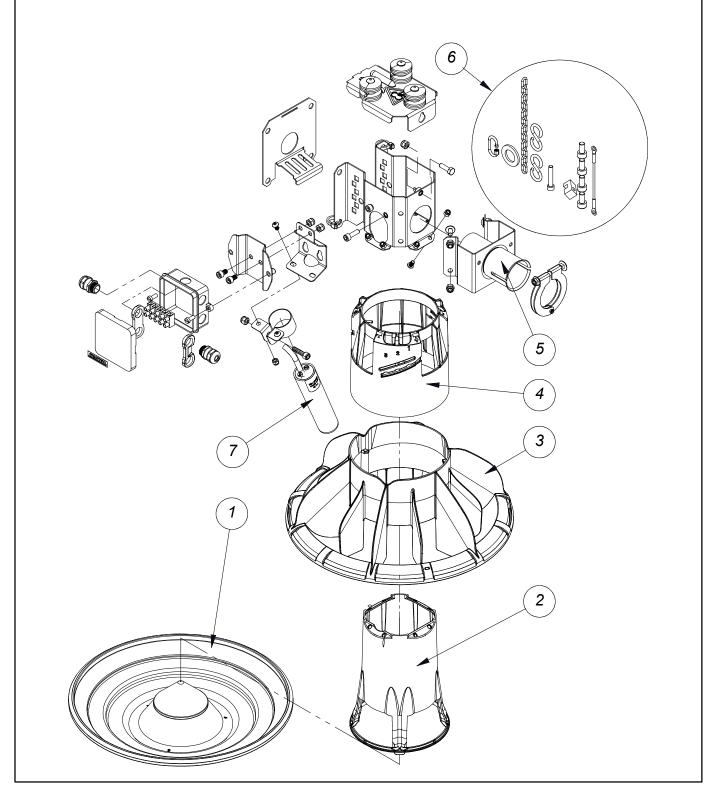




CONTROL UNIT COMEO WITH SENSOR - 00107334

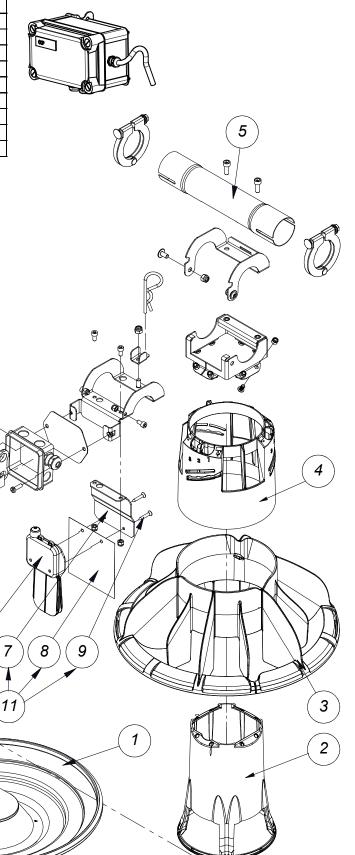
Key	Nam e	Part Nr.	Qt.
1	STEPPED ROUND FEEDER PAN	00106953	1
2	SUPPORT CONE F/ CONTROL PAN	00107076	1
3	12 FIN PAN SUPPORT	00108888	1
4	ADJUSTER RING F/ CONTROL PAN	00108896	1
5	TUBE BRACKET ASS'Y	10111893	1
6	HARDWARE KIT	10900322	1
7	SENSOR VC12 RT230106821 OFF DELAY	03101185	1





FIXED INTERMEDIATE CONTROL UNIT COMEO - WITH SWITCH - 00107342

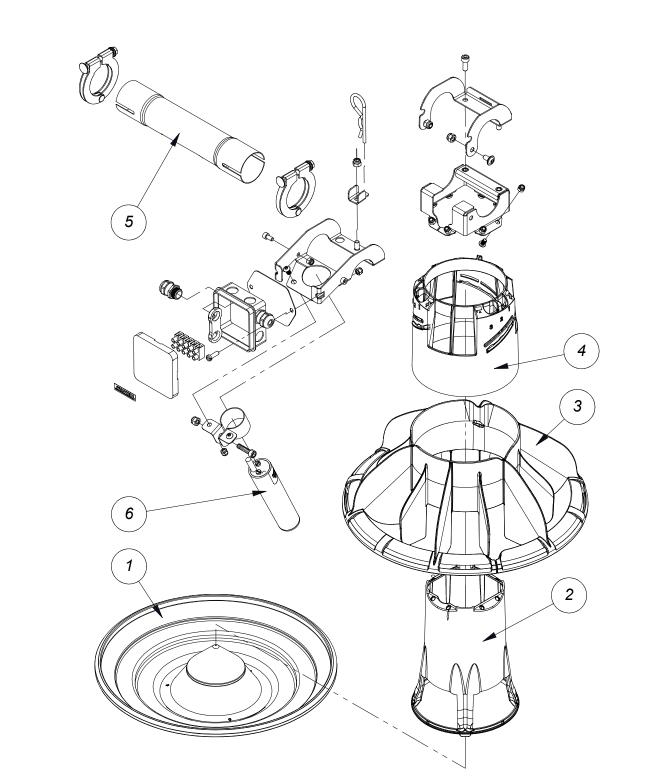
Key	Nam e	Part Nr.	Qt.
1	STEPPED ROUND FEEDER PAN	00106953	1
2	SUPPORT CONE F/ CONTROL PAN	00107076	1
3	12 FIN PAN SUPPORT	00108888	1
4	ADJUSTER RING F/ CONTROL PAN	00108896	1
5	TUBE W/DROP HOLE (2 EXP. ENDS)- L=240MM	10112029	1
6	LEVEL SWITCH ASS'Y	13104500	1
7	PLATE SWITCH	10112005	1
8	SWITCH SHIELD	10111941	1
9	WOOD SCREW PK Ø4X25-GALVANIZED	20108924	2
10	FLEXTUBE KIXoo/VIToo CTRL PAN	15010556	1
11	LEVEL SWITCH COMPLETE	00108038	1



FIXED INTERMEDIATE CONTROL UNIT COMEO - WITH SENSOR - 00107350

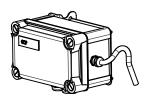
Key	Name	Part Nr.	Qt.
1	STEPPED ROUND FEEDER PAN	00106953	1
2	SUPPORT CONE F/ CONTROL PAN	00107076	1
3	12 FIN PAN SUPPORT	00108888	1
4	ADJUSTER RING F/ CONTROL PAN	00108896	1
5	TUBE W/DROP HOLE (2 EXP. ENDS)- L=240MM	10112029	1
6	SENSOR VC12 RT230106821 OFF DELAY	03101185	1

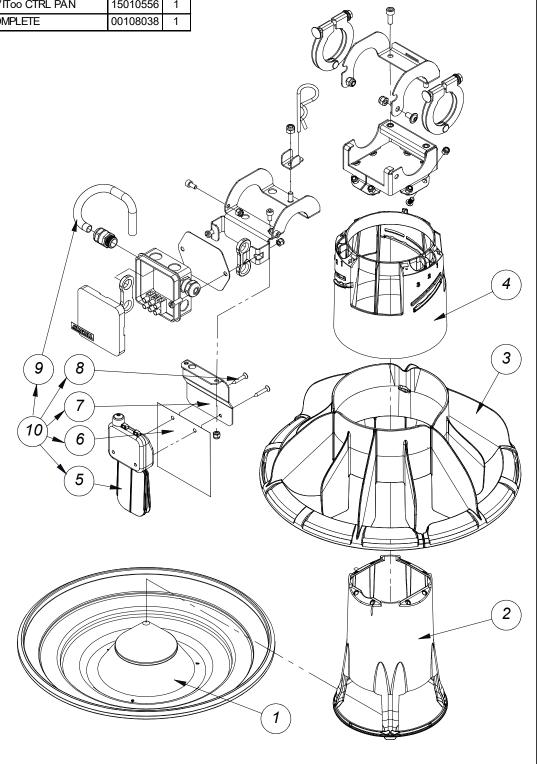




MOVABLE INTERMEDIATE CONTROL UNIT COMEO - WITH SWITCH - 00107390

Key	Name	Part Nr.	Qt.
1	STEPPED ROUND FEEDER PAN	00106953	1
2	SUPPORT CONE F/ CONTROL PAN	00107076	1
3	12 FIN PAN SUPPORT	00108888	1
4	ADJUSTER RING F/ CONTROL PAN	00108896	1
5	LEVEL SWITCH ASS'Y	13104500	1
6	SWITCH SHIELD	10111941	1
7	PLATE SWITCH	10112005	1
8	WOOD SCREW PK Ø4X25-GALVANIZED	20108924	2
9	FLEXTUBE KIX00/VIT00 CTRL PAN	15010556	1
10	LEVEL SWITCH COMPLETE	00108038	1

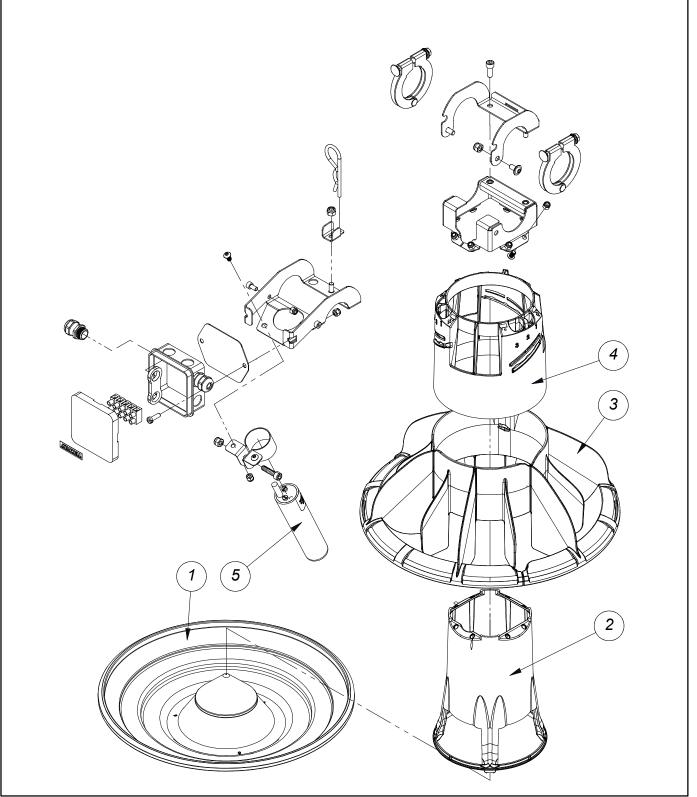


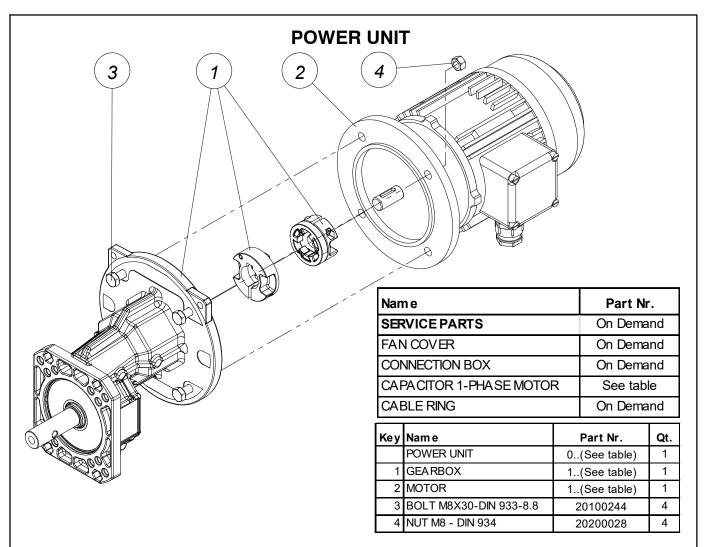


MOVABLE INTERMEDIATE CONTROL UNIT COMEO - WITH SENSOR - 00107398

Key	Name	Part Nr.	Qt.
1	STEPPED ROUND FEEDER PAN	00106953	1
2	SUPPORT CONE F/ CONTROL PAN	00107076	1
3	12 FIN PAN SUPPORT	00108888	1
4	ADJUSTER RING F/ CONTROL PAN	00108896	1
5	SENSOR VC12 RT230106821 OFF DELAY	03101185	1

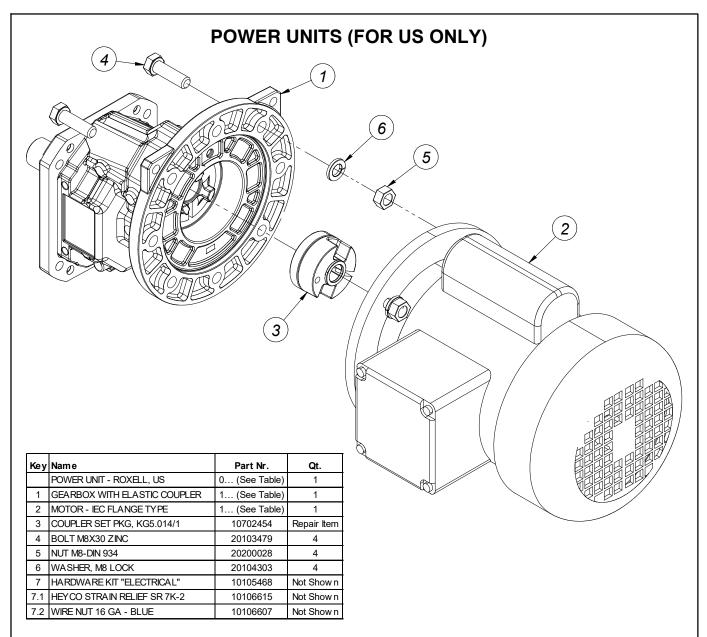




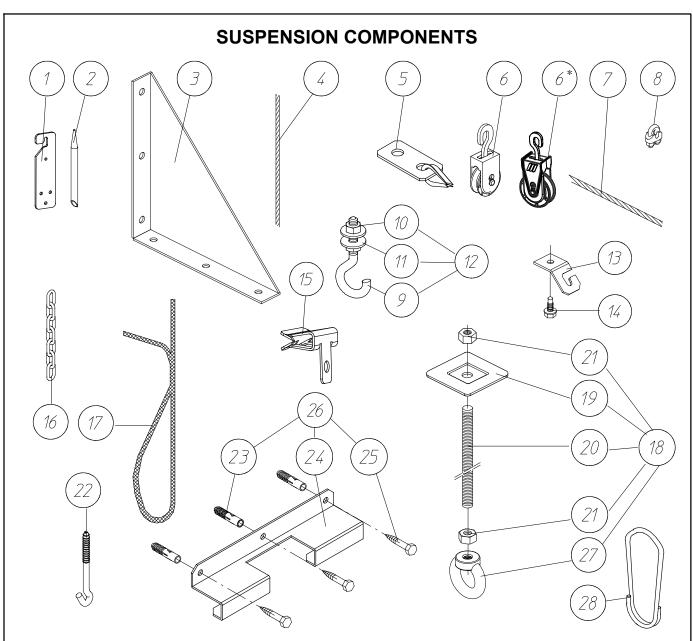


System	Comeo (50 Hz)	Comeo (60 Hz)
Gearbox With Key	10106441	
Gearbox With F-Coupling alu	10111821	10112317
Type Elastic Coupling Set		
(CS 71-80-90)	CS71 13204180	CS71 13204180
Motor Shaft	Ø14	Ø14
Ratio	3.867	4.73
Output speed 50Hz	350	NA
Output speed 60Hz	NA	360
Construction size	71	71
Motor speed 50Hz(RPM)	1500	NA
Motor speed 60Hz(RPM)	NA	1800
Feed capacity kg	520	520
Drive 3x230/400V 50Hz IE1	00107092	
Motor IE1	10106482 (0,37kW)	
Drive 3x200/346V 50Hz	00107100	
Motor	10104487 (0,37kW)	
Drive 1x230V 50Hz	00107108	
Motor	10106656 (0,37kW)	
Drive 3x220-230/380-400V 60Hz		00108784
Motor		10106482 (0,37kW)
Drive 3x200/346V 60Hz		00108808
Motor		10104487 (0,37kW)
Drive 1x220V 60Hz		00108800
Motor		10106656 (0,37kW)

Capacitor 1 phase motor				
09802330	RUN CAPACITOR 10 µF			
09802338	RUN CAPACITOR 12,5 µF			
09802346	RUN CAPACITOR 18 µF			
09802354	RUN CAPACITOR 20 µF			
09802362	RUN CAPACITOR 25 µF			
09802370	RUN CAPACITOR 30 µF			
09802378	RUN CAPACITOR 45 µF			
09802386	RUN CAPACITOR 50 µF			
09802394	START CAPACITOR 12,5 µF			
09802402	START CAPACITOR 14 µF			
09802410	START CAPACITOR 16 µF			
09802418	START CAPACITOR 20 µF			
09802426	START CAPACITOR 25 µF			
09802442	START CAPACITOR 36-43 µF			
09802450	START CAPACITOR 56-63 µF			
09802458	START CAPACITOR 108-130 µF			



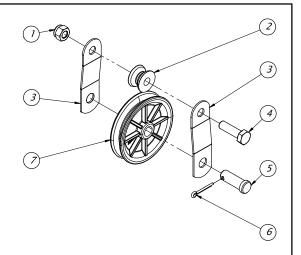
Geart	oox With Elastic Coupler Set	10108223	10203909
Motor Shaft Diameter		5/8 Inch	5/8 Inch
Speed Ratio		4.73:1	2.52 : 1
	Output Speed (RPM)	365	685
	Construction Size	71	71
Motor Speed 60 Hz (RPM)		1725	1725
Feed Capacity (Lb/Hr)		1040	1730
P.U. ASSY	1PH x 115/230V x 60 Hz	00104083 (1/2 HP)	00201871 (1/2 HP)
MOTOR	1PH x 115/230V x 60 Hz	10109148 (1/2 HP)	10109148 (1/2 HP)
P.U. ASSY	1PH x 115/230V x 60 Hz	00104091 (3/4HP)	N/A
MOTOR	1PH x 115/230V x 60 Hz	13107081 (3/4 HP)	N/A
P.U. ASSY	3PH x 230/400V x 50/60 Hz	00104109 (1/2 HP)	00201889 (1/2 HP)
MOTOR	3PH x 230/400V x 50/60 Hz	10112301 (1/2 HP)	10112301 (1/2 HP)



Key	Nam e	Part Nr.	Key	Nam e	Part Nr.
*1	ADJUSTMENT LEVELER	00602060	15	CADDY CLIPS TYPE 4H58	20104220
2	NEEDLE TO FIX SUSPENSION CORD	00100792	16	CHAIN DIA. 3.5 MM	00100750
3	WALL BRACKET FOR CENTRAL WINCH	00101097	17	SUSPENSION CORD	00100610
*4	CABLE 3/32" - ø2.5 MM - 250M	00106887	18	ANCHOR BOLT ASSEMBLY	00100404
	CABLE 3/32" - ø2.5 MM - 500M	00106895	19	FOOT	10101657
5	CABLE CONNECTION ASSEMBLY	00102699	20	SCREW SPINDLE M12 x 350	10107530
6	SMALL PULLEY WITH STAINLESS STEEL HOOK	00104349	21	NUT M12-DIN 934	20100582
*6	PLASTIC PULLEY Ø45MM W/ ST.ST. HOOK	00107198	22	SCREW HOOK 90 MM	05000872
7	CABLE ø 5MM - 3/16" - (7x7)	00100388		SCREW HOOK 160 MM	05000237
8	CABLE CLAMP NO. 5	00100545	*23	PLUG DIA. 10 MM - NYLON	20102034
9	SCREW HOOK M6 X 60	20103156	*24	WALL BRACKET FOR HOPPER	10107878
10	NUT M6 - DIN 934	20100210	*25	HEXAG.WOOD SCREW 6X40-DIN 571	20102026
11	WASHER 6.4x18x1.5-DIN 9021	20100756	*26	KIT WITH WALL BRACKET FOR HOPPER	00104331
12	SUSPENSION HOOK M6x60	05000302	27	EYENUT M12	20104279
14	SUSPENSION PLATE	00103069	28	HANGER Ø45MM	00100354
14	SELF DRILLING SCREW 6.3X25	00103077	*	OPTION	

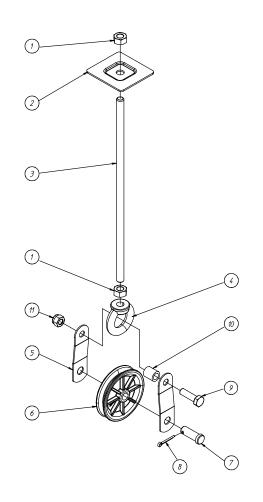
SINGLE EYE PULLEY - 00100420

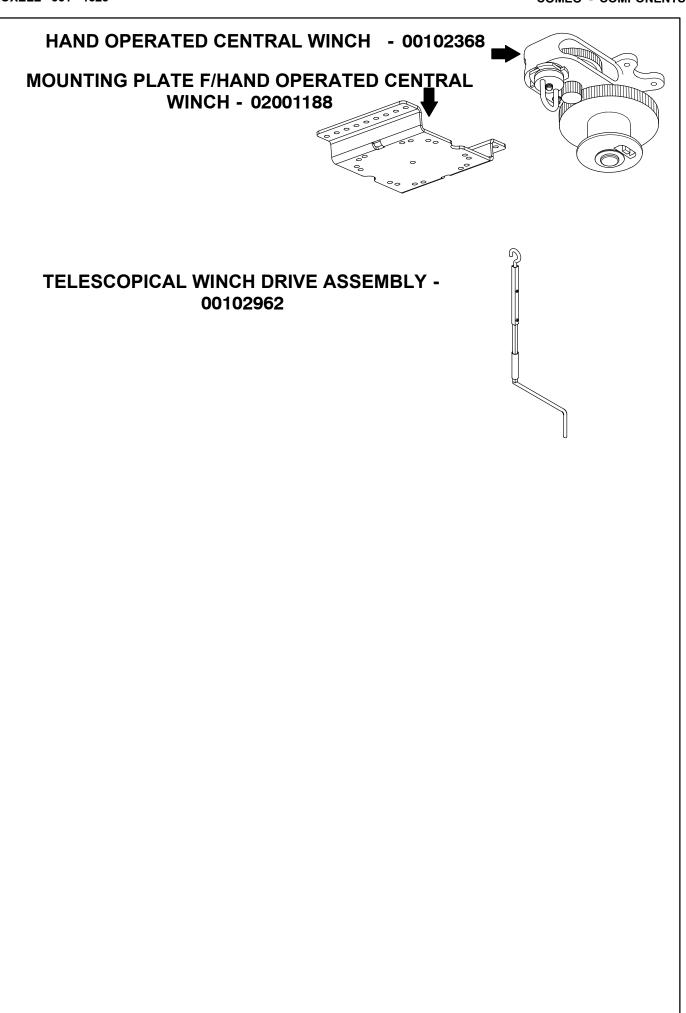
Key	Nam e	Part Nr.	Qt.
1	LOCKNUT M10-DIN 985	20100426	1
2	CABLE GUIDE WHEEL	10111417	1
3	PULLEY SIDE PLATE (SE)	10111391	2
4	BOLT M10X35-DIN 933	20102190	1
5	CLEVIS PIN	10101723	1
6	SPLIT PIN 3x25-DIN 94	20100533	1
7	PULLEY WHEEL	10101707	1



HEAVY DUTY PULLEY - 00100412

Key	Nam e	Part Nr.	Qt.
1	NUT M12-DIN 934	20100582	2
2	FOOT	10101657	1
3	SCREW SPINDLE M12 x 350	10107530	1
4	EYENUT M12	20104279	1
5	PULLEY SIDE PLATE (SE)	10111391	2
6	PULLEY WHEEL	10101707	1
7	CLEVIS PIN	10101723	1
8	SPLIT PIN 3x25-DIN 94	20100533	1
9	BOLT M10X35-DIN 933	20102190	1
10	SPACER	10101715	1
11	LOCKNUT M10-DIN 985	20100426	1



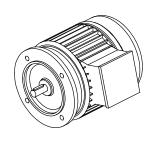


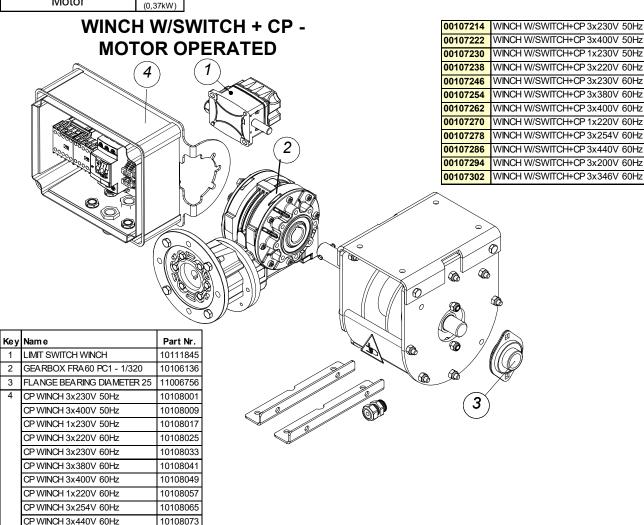
System	WINCH
Gearbox With Key	10106136
Motor Shaft	Ø14
Ratio	315
Output speed 50Hz	4.5
Output speed 60Hz	5.4
Construction size	71
Motor speed 50Hz(RPM)	1500
Motor speed 60Hz(RPM)	1800
3x230/400V 50Hz IE1	
Motor IE1	11111978
	(0,25kW)
3x200/346V 50Hz	11100476
Motor	(0,25kW)
1x230V 50Hz	(0,20,117)
Motor	00102061
	(0,25kW)
3x220-230/380-400V 60Hz	
Motor	00102343 (0,3kW)
3x200/346V 60Hz	(U,SKVV)
3X200/346V 60H2	11102779
Motor	(0,3kW)
3x254/440V 60Hz	, , ,
Motor	11900842
	(0,3kW)
1x220V 60Hz	1010000
Motor	10103554
1115101	(0,37kW)

Capacitor 1	ohase motor
09802330	RUN CAPACITOR 10 µF
09802338	RUN CAPACITOR 12,5 µF
09802346	RUN CAPACITOR 18 µF
09802354	RUN CAPACITOR 20 µF
09802362	RUN CAPACITOR 25 µF
09802370	RUN CAPACITOR 30 µF
09802378	RUN CAPACITOR 45 µF
09802386	RUN CAPACITOR 50 µF
09802394	START CAPACITOR 12,5 µF
09802402	START CAPACITOR 14 µF
09802410	START CAPACITOR 16 µF
09802418	START CAPACITOR 20 µF
09802426	START CAPACITOR 25 µF
09802442	START CAPACITOR 36-43 µF
09802450	START CAPACITOR 56-63 µF
09802458	START CAPACITOR 108-130 µF

MOTOR

FOR CENTRAL WINCH - MOTOR OPERATED





STANDARD : CONTROL SWITCH FOR WINCH - 00107206

10108081

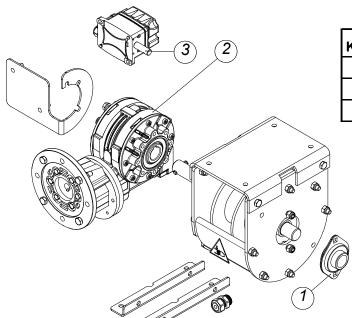
10108089



CP WINCH 3x200V 60Hz

CP WINCH 3x346V 60Hz

WINCH W/SWITCH - MOTOR OPERATED - 00107190



Key	Nam e	Part Nr.
1	FLANGE BEARING DIAMETER 25	11006756
2	GEARBOX FRA60 PC1 - 1/320	10106136
3	LIMIT SWITCH WINCH	10111845

OPTION: CONTROL PANEL FOR CENTRAL WINCH



Do not use the winch control panel to directly switch motor currents. Only use the winch control panel to switch control currents up to 3 A at 240 V on an AC-15 load.

WARNING

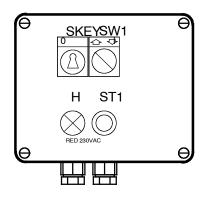
The motor must be protected against short circuits and overcurrents, in accordance with local regulations.

You can use a motor starter to switch and protect the motor.

Always ensure solid earthing!



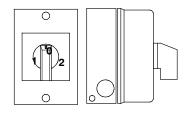
Used in combination with single-phase motors.

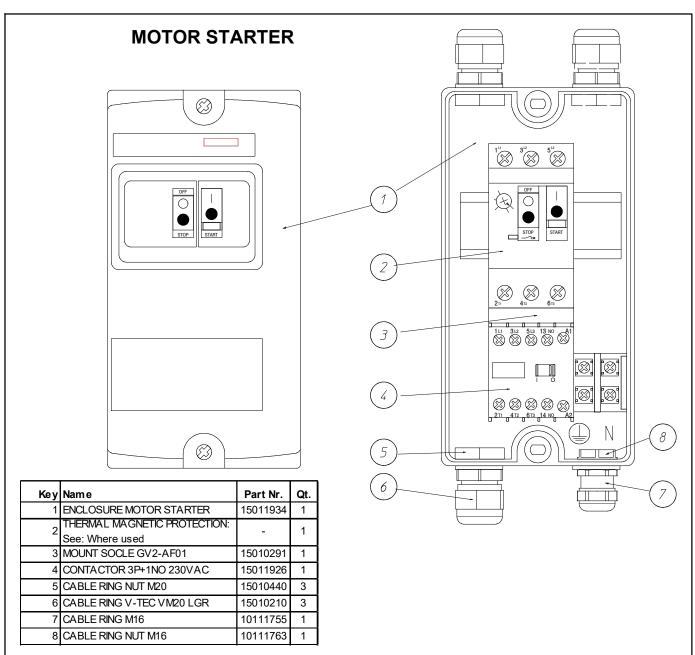


00101030	CONTROL PANEL FOR 1 WINCH MOTOR
00101048	CONTROL PANEL FOR 2 WINCH MOTORS
00101055	CONTROL PANEL FOR 3 WINCH MOTORS
00101063	CONTROL PANEL FOR 4 WINCH MOTORS
00101071	CONTROL PANEL FOR 5 WINCH MOTORS
00101089	CONTROL PANEL FOR 6 WINCH MOTORS

OPTION: CONTROL SWITCH FOR WINCH - 00102327

(IN COMBINATION WITH THREE PHASE MOTORS)



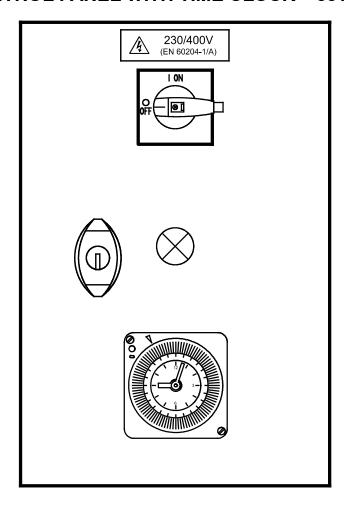


	MOTOR STARTER USED FOR :			
MOTOR	MOTOR RATING		SUPPLY VOLTAG	E
50Hz	60Hz	3- PH. 230V	3- PH. 400V	1-PH. 230V
0.18KW	0.22KW	05001233	05001225	05001241
0.25KW	0.30KW	05001233	05001225	05001241
0.37KW	0.44KW	05001241	05001233	05001249
0.55KW	0.66KW	05001249	05001241	05001249
0.74KW	0.90KW	05001249	05001241	05001257
1.10KW	1.32KW	05001257	05001249	05001265
1.25KW	1.50KW	05001257	05001249	05001265
1.50KW	1.80KW	05001265	05001249	05001265

	THERMAL-MAGNETIC MOTOR PROTECTION: WHERE USED					
MOTOR STARTER	05001225	05001233	05001241	05001249	05001257	05001265
THERM. MAGNETIC PROTECT.	13600861	13900261	13600887	13900279	15004799	15006307
SCHNEIDER REF.	GV2-ME05	GV2-ME06	GV2-ME07	GV2-ME08	GV2-ME010	GV2-ME014
CURRENT	0,63-1.00A	1.00-1,60A	1,60-2,50A	2,50-4.00A	4.00-6.30A	6.00-10.00A

ALWAYS PROVIDE A SOLID EARTHING!

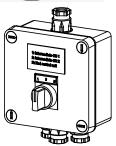
CONTROL PANEL WITH TIME CLOCK - 00100685



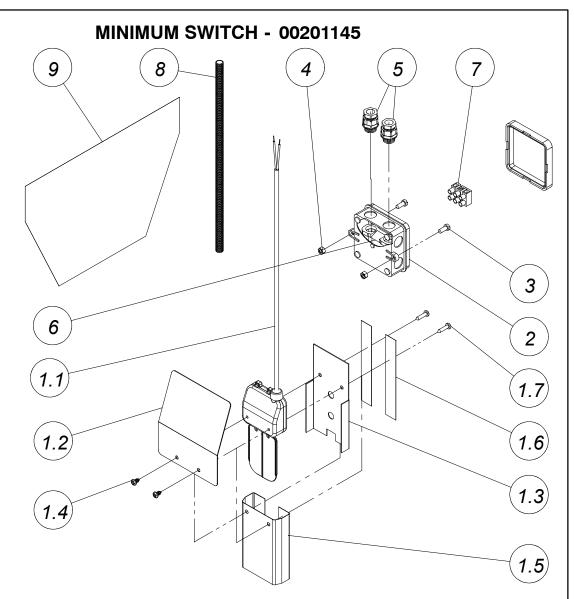
BOX W/COUNTER - 00102905



OPTION: CONTROL PANEL
INTERMEDIATE CONTROL UNIT
- 05000922

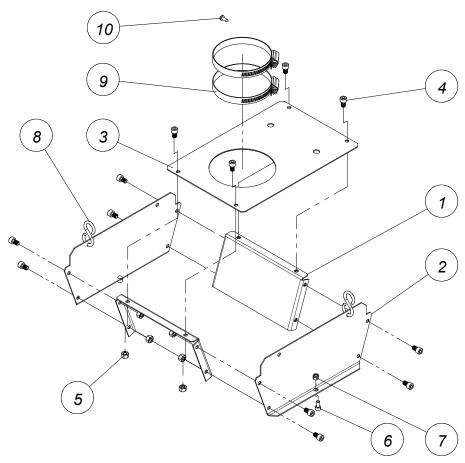


END UNIT - 00901827 7.1 7.5 Key Name Part Nr. Qt. 7.7 1 OVERFLOW BOX 10204998 1 2 TUBE BRACKET ASS'Y 10205771 1 3 BOTTOM PLATE 10204980 1 7.2 10110237 4 PROTECTION PLATE 1 5 BOLT M6X10 - DIN 933-8.8 20100160 8 7.6 6 LOCKNUT M6 - DIN 985 20100400 4 7 HARDWARE KIT 10107431 1 7.1 "S" HOOK 05000013 1 10107449 7.2 CHAIN Ø2.5 LG=149MM 1 7.3 WASHER Ø34X20X3 - DIN 126 20100483 7.4 SOCKET CAP SCREW M6X35 20102158 7.5 FLAT ROUND HEAD SCREW M8X16 20104196 7.6 SCREW LINK Ø3.5 10203156 7.7 DRIVE BLOCK 10100782 8 WASHER D.6.6X12X1.6 - DIN 126 20100459 1 6 6 3



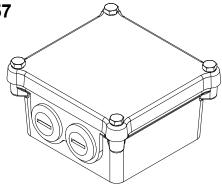
Key	Nam e	Part Nr.	Qt.
1	MINIMUM SWITCH COMPLETE	10206043	1
1.1	MINIMUM SWITCH ASS'Y	10203073	1
1.2	SWITCH COVER	10206035	1
1.3	SWITCH SUPPORT	10203107	1
1.4	PARCKER SCREW 4.2x9.5 DIN 7981	20102745	2
1.5	MINIMUM SWITCH SHIELD	10203115	1
1.6	ADHESIVE TAPE 19X0.23-2SIDE	30800726	2
1.7	PARKER SCREW 4.2x19 DIN 7981	20104535	2
2	HANDY BOX OBO A8	15000037	1
3	SCREW M5X12 DIN 84-4.8	20101135	2
4	NUT M5 - DIN 934	20100152	2
5	CABLE RING PG 9	15001472	2
6	CABLE RING HOLDER (2xPG9)	15010119	1
7	CLAMP STROKE 27 20 6E/3	10103109	1
8	SWITCH CORD GUARD	13104518	1
9	DRILL DECAL MINIMUM SWITCH	10203149	1

EXTENSION FEED INTAKE BOOT - 00901470

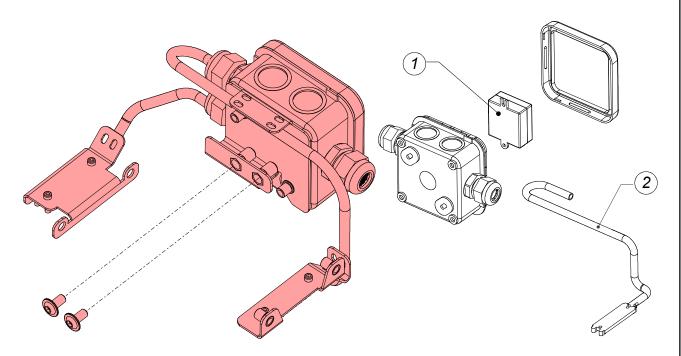


Key	Nam e	Part Nr.	Qt.
1	SIDE PLATE EXTENSION BOX	10900397	2
2	FRONT&BACK PLATE EXTENSION BOX	10900389	2
3	TOP PLATE EXTENSION BOX	10900405	1
4	NUT M6 - DIN 934	20100210	12
5	SOCKET CAP SCREW M5X10 - DIN 912	20103149	2
6	LOCKNUT M5 - DIN 985	20100392	2
7	"S" HOOK	05000013	2
8	SOCKET CAP SCREW M6X10 - DIN 912	20101713	12
9	HOSE CLAMP Ø90-110	00105726	2
10	PARCKER SCREW 8X1/2"	20100525	1

FLEXIBLE CONNECTION BOX - 00106757

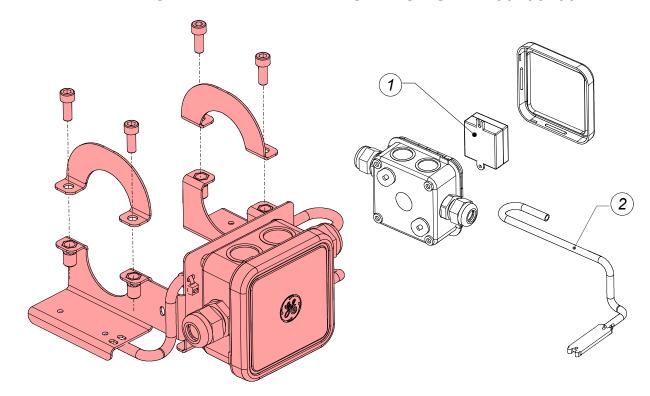






Key	Nam e	Part Nr.	Qt.
1	POWER SUPPLY 12VDC - 6W	10112245	1
2	LEDBAR - 100LUMEN - LG 550MM	10112237	1

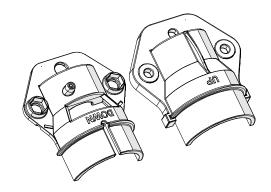
LED LIGHT KIT F/ INTERM. CONTROL UNIT - 00108166



Key	Nam e	Part Nr.	Qt.
1	POWER SUPPLY 12VDC - 6W	10112245	1
2	LEDBAR - 100LUMEN - LG 550MM	10112237	1

SPARES SET BEAR. CAP HOLD - Ø44.5 (SET 10 PCS) - 00106929

Nam e	Part Nr.	Qt.
BEAR.CAP HOLDER-Ø44.5 (SET 10PCS)	00106929	10
	Used in	1:
FEED INTAKE BOOT POULTRY	001065	00
POULTRY INTAKE BOOT WITH SENSOR	001089	50
POULTRY INTAKE BOOT WITH SENSOR 230VAC	001089	52
DOUBLE FEED INTAKE BOOT	001065	18



PART III

INSTALLATION INSTRUCTIONS

GENERAL SAFETY RULES

LINE SYSTEMS



IMPORTANT

Carefull read the following instructions before you INSTALL the system

- 1. Be CAREFUL when handling the ROLLS OF AUGER.
 - When you release the BINDING WIRE, it is possible that the auger UNROLLS. This
 can cause injuries.
 - ALWAYS use SAFETY GLOVES when you slide the auger into the tube.
 - ALWAYS see that the auger CANNOT SPRING BACK (by using clamps) when you put it under tension .
- 2. Check all TUBE CONNECTIONS and all TUBE CLAMPS on control units, feed intake boots and bearings for PROPER CLAMPING. Tighten all tube clamps with a TORQUE of min.: 10Nm.
- 3. TEST the SUSPENSION SYSTEM for safe operation :
 - Firmly fasten the WINCH and the SUSPENSION POINTS. Firmly tighten ALL CABLE CLAMPS.
 - WINCH UP THE FEEDER LINES THREE TIMES and lower them again (full course). NEVER STAND UNDERNEATH THE SYSTEM when doing this.
 - Winching up and lowering must proceed WITHOUT ANY HITCH.
- **4.** At the **FIRST START UP**, make sure that, if the auger **HITCHES** or **BLOCKS**, you can **IMMEDIATELY SWITCH OFF** the system with the main switch on the control panel.

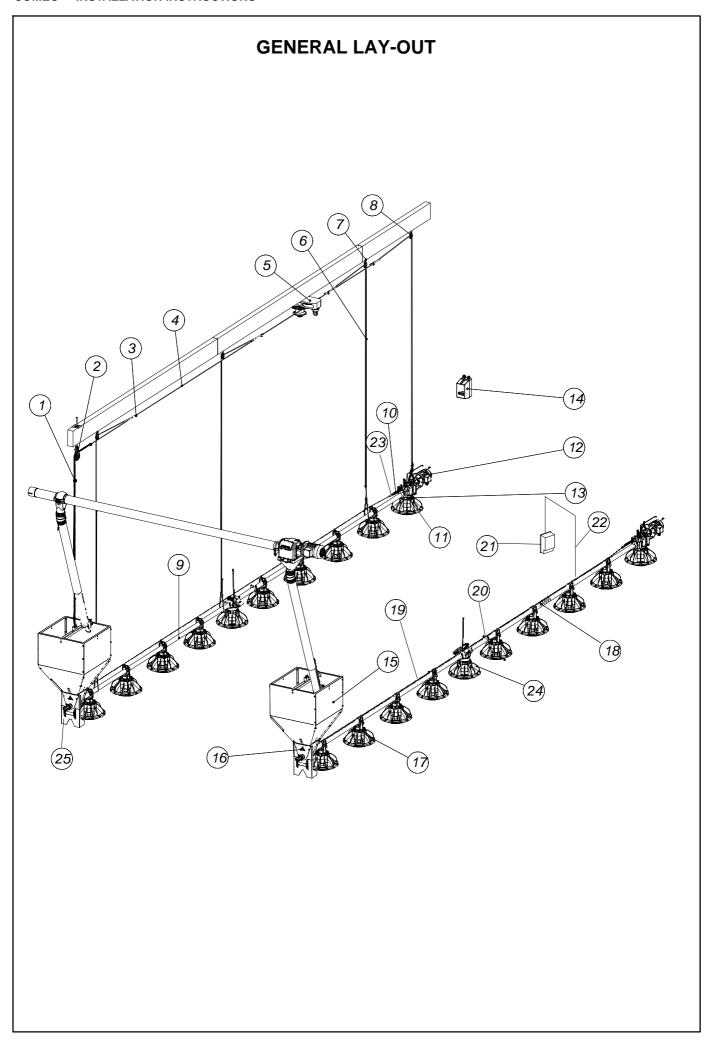


This **SYMBOL** will be used to draw your attention to matters that are of **GREAT IMPORTANCE** for your **SAFETY**.

It means: **WARNING** - follow the safety instructions:

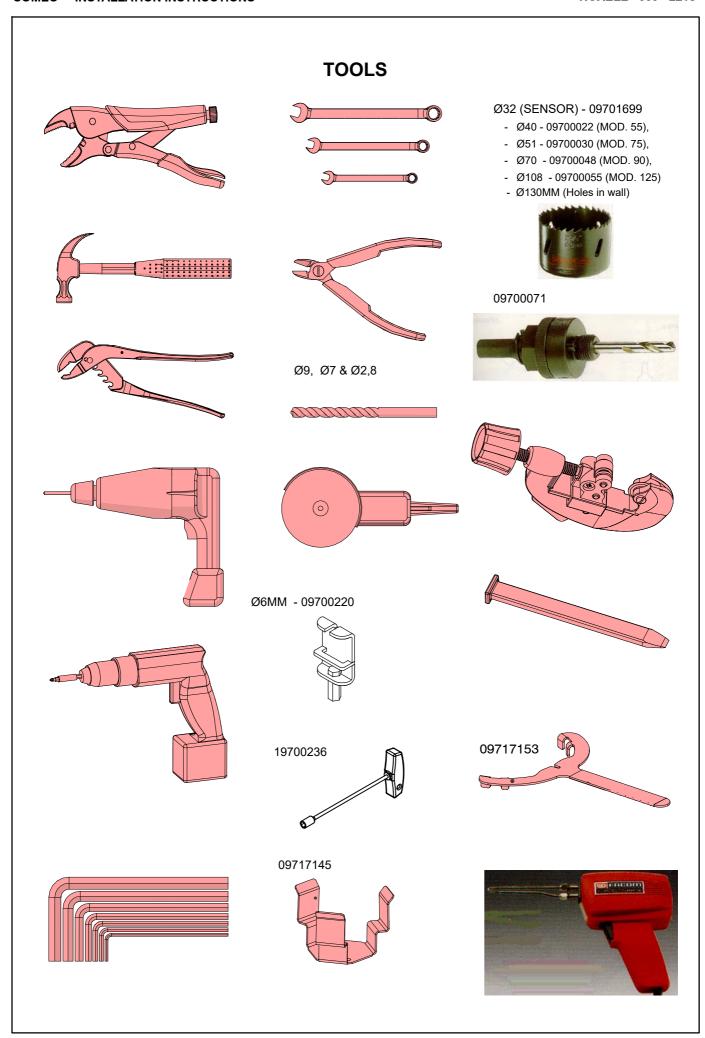
disconnect the current - re-read the safety rules.

In short: **BE ALERT**. IGNORING these instructions can cause SE-RIOUS INJURIES or even DEATH.



COMPONENT NUMBERS

Key	Name	Number
1	CHAIN DIAM. 3.5 mm	00100750
2	HEAVY DUTY PULLEY	00100412
3	CABLE CLAMP NO. 5	00100545
4	CABLE DIAM. 5 mm	00100388
5	HAND OPERATED CENTR. WINCH	00102368
6	SUSPENSION CORD	00100610
7	SCREW HOOK 90 mm	05000872
	SCREW HOOK 160 mm	05000237
8	SMALL PULLEY WITH STAINLESS STEEL HOOK	00104349
9	TUBES	SEVERAL
10	SPRING	00400077
11	ANCHOR BRACKET	00102681
12	POWER UNIT	SEVERAL
13	CONTROL PAN	SEVERAL
14	MOTOR STARTER	SEVERAL
15	100KG HOPPER	00100602
16	FEED INTAKE BOOT POULTRY	00106500
	POULTRY INTAKE BOOT WITH SENSOR - 230 V AC	00108952
	POULTRY INTAKE BOOT WITH SENSOR - 24 V DC	00108950
17	FEEDER PAN	SEVERAL
18	AUGER	00100974
19	CABLE - 1/16" - 1.5MM - 250M	00106839
	CABLE - 1/16" - 1.5MM - 500M	00106831
20	TUBE CLAMP ASSY DIAM. 45 mm	00102921
21	POULTRY PERCH GUARD	00105692
22	CABLE FOR PERCH GUARD - 50M	00106847
	CABLE FOR PERCH GUARD - 100M	00106855
23	DUPLEX CABLE CLAMP ST. ST 3MM	00106945
24	INTERMEDIATE CONTROL PAN	SEVERAL
25*	SUPPORT FOR HOPPER IN LINE	00108014
*	OPTION	



DANGER

ELECTRICITY WATCH OUT!

LEAVE CONNECTIONS TO THE SYSTEM TO A QUALIFIED ELECTRICIAN!

- Wire the system with the utmost care and attention.
- Always provide a solid earthing.
- Check all connections before you switch on.
- Always follow the wiring diagrams included in the control panels.
- Compare setting of the motor protection with the data on the motor label.
- Motor protections are set at minimum by the manufacturer.
- If you do not use a Roxell control panel, make sure to provide the necessary motor protections.
- Compare motor label plate and motor connection with local voltage :

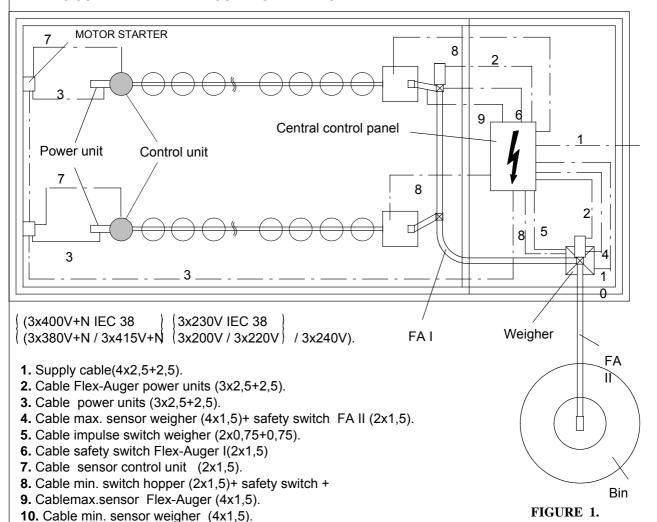


MAXIMUM CABLE LENGTHS TO THE MOTORS: SEE PAGE III-60

ELECTRICAL WIRING DIAGRAM

SEALED PARTS IN CONTROL PANELS MUST <u>UNDER NO CONDITION</u> WHATSOEVER BE UNSEALED!

ONLY THE CONNECTION DIAGRAM IS SHOWN IN THE ASSEMBLY GUIDE. WIRING DIAGRAMS ARE ALWAYS SUPPLIED WITH THE CONTROL PANELS.



THE SUSPENSION

The suspension of the system is very important: it must be done carefully and accurately! Closely study the instructions before starting the suspension.

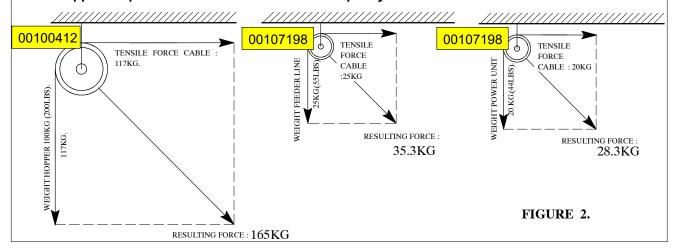
- IMPORTANT: If there is a layer of insulation, first install the necessary reinforcements!



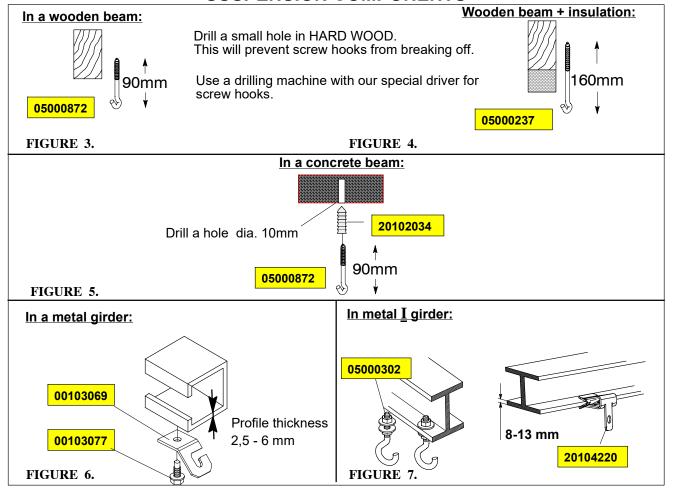
- Each suspension point (small pulley) should be able to hold a 100 kg burden.
- Each fixing of the heavy duty pulley should be able to hold a burden of 3 X F.

DANGER

- * You can easily determine the winch location by means of forces:
- On hopper suspension
- On standard pulley
- On power unit suspension



SUSPENSION COMPONENTS



DRAWINGS OF SUSPENSION SYSTEM WITH CENTRAL WINCH



FOR YOUR SAFETY: NEVER MAKE THE INSTALLATIONS LONGER THAN THE RECOMMENDED LENGTH.

DANGER

31 - 85,9 M (MAX. 300 KG)

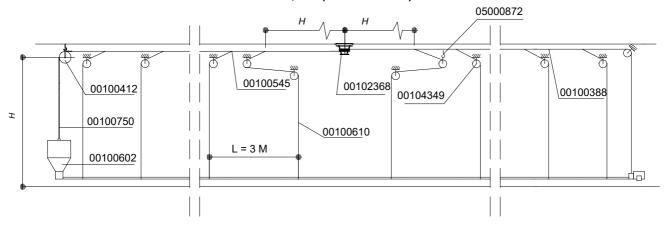


FIGURE 8.

85,9 - 165,3 M (MAX. 523 KG)

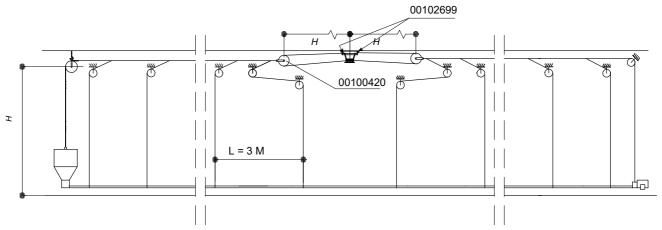
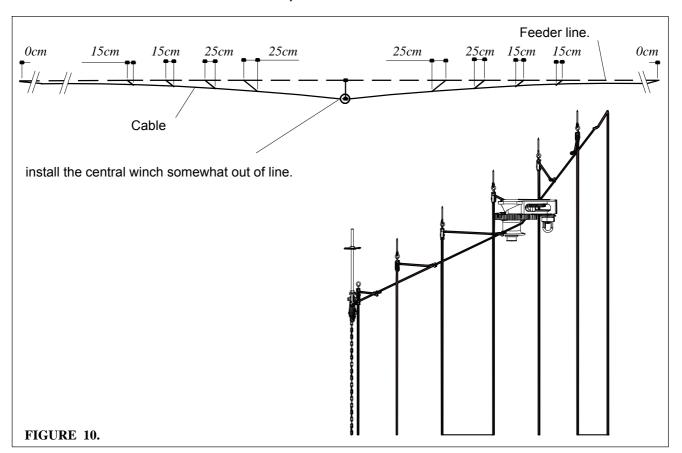
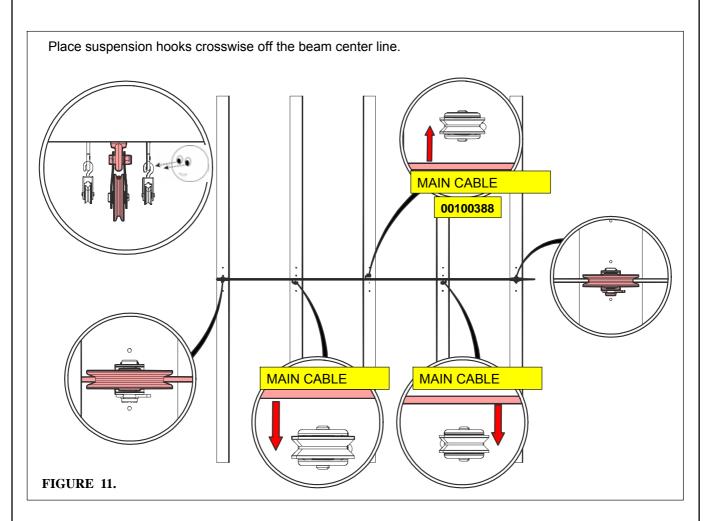


FIGURE 9.

00100412	HEAVY DUTY PULLEY	00100750	CHAIN DIAM. 3.5 MM
00104349	SMALL PULLEY WITH STAINLESS STEEL HOOK	00100610	SUSPENSION CORD
00102368	HAND OPERATED CENTRAL WINCH	00100420	SINGLE EYE PULLEY
00100388	CABLE ø 5 MM - 3/16" - (7x7)	05000872	SCREW HOOK 90MM
00100545	CABLE CLAMP NO. 5	00100602	100 KG HOPPER
00102699	CABLE CONNECTION ASSEMBLY		

CHOOSE BETWEEN 2 FOLLOWING POSSIBILITIES (SO THE CABLE CLAMPS WILL NOT TOUCH THE PULLEYS WHEN YOU WINCH UP THE LINE).





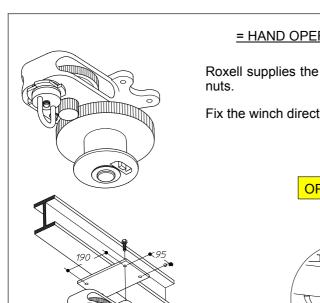
CENTRAL WINCH

MAXIMUM LIFTING POWER: 800KGS.



DANGER

THE TRACTION OF THE WINCH IS 800 KG. INSTALL THE WINCH AT A SOLID SPOT IN THE ROOF CONSTRUCTION. REINFORCE WHEN NECESSARY.



= HAND OPERATED CENTRAL WINCH.

Roxell supplies the hand operated winch without mounting plate and bolts/nuts.

Fix the winch directly to a SOLID CEILING.

You can install plate & winch in any direction.

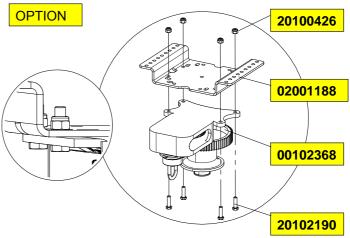
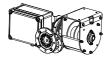


FIGURE 12.

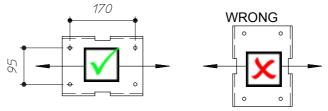
Winching up speed : 1m/minute.



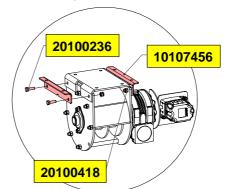


<u>= CENTRAL WINCH W/GEARBOX</u> (MOTOR OPERATED), supplied with MOUNTING PLATE.

Fix this plate to the ceilings before the insulation. Pay attention to the correct direction.



Fix the winch to the plate with bolts and locknuts.



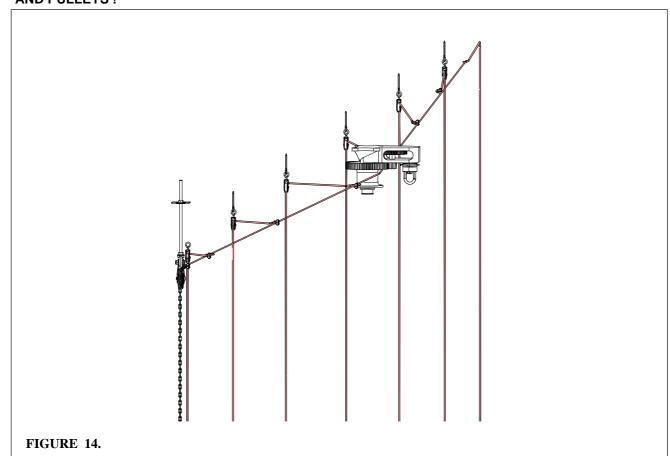
Install the motor after finishing the installation.

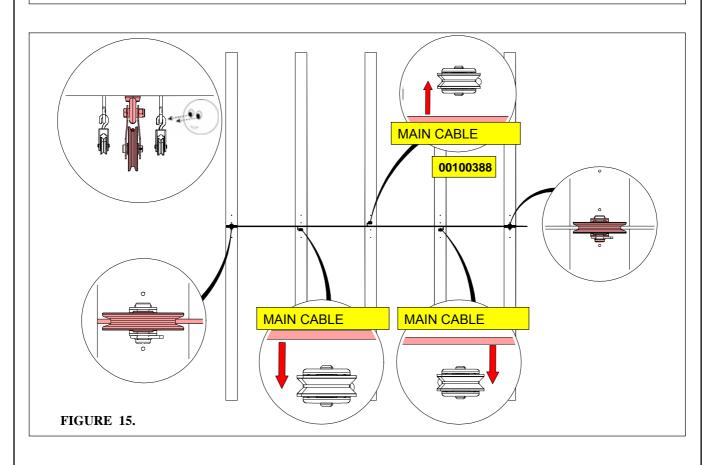
FIGURE 13.

SUSPENSION FOR FEEDER LINE

SUSPEND THE CONTROL UNIT AT LEAST 3M FROM THE HOUSE END WALL!

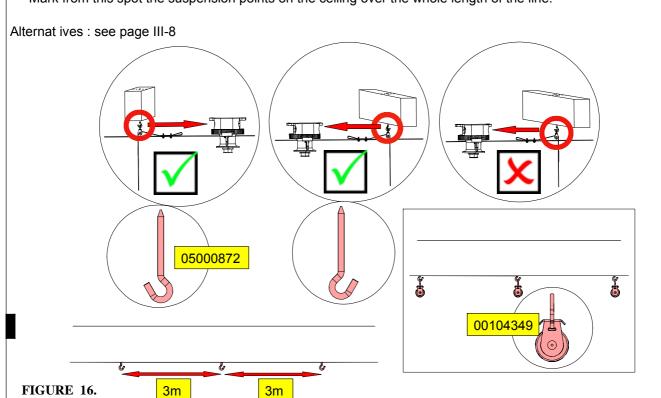
MAKE SURE THAT THE MAIN CABLE 5mm DOES NOT HANG IN, BUT BESIDE THE SCREW HOOKS AND PULLEYS!

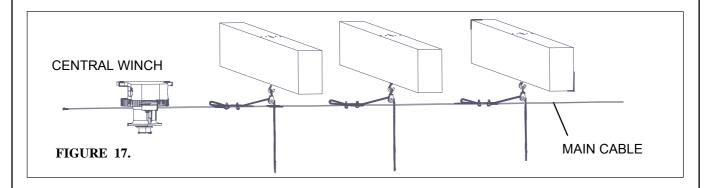


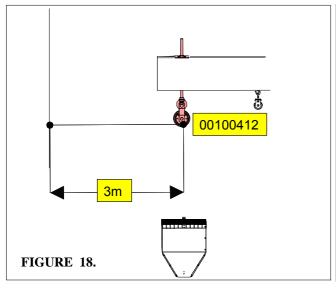


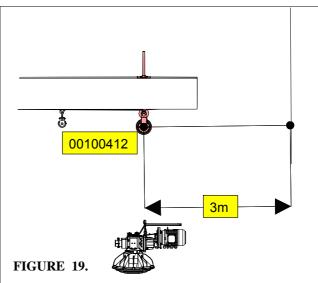
CONSIDER THE DOUBLE DIVERSION !! ONLY THEN INSTALL THE CABLE. YOU CAN HANG THE MAIN CABLE IN THE SCREW HOOKS FOR THE TIME BEING.

- Measure the distance from the wall to the first feeder line.
- Mark from this spot the suspension points on the ceiling over the whole length of the line.

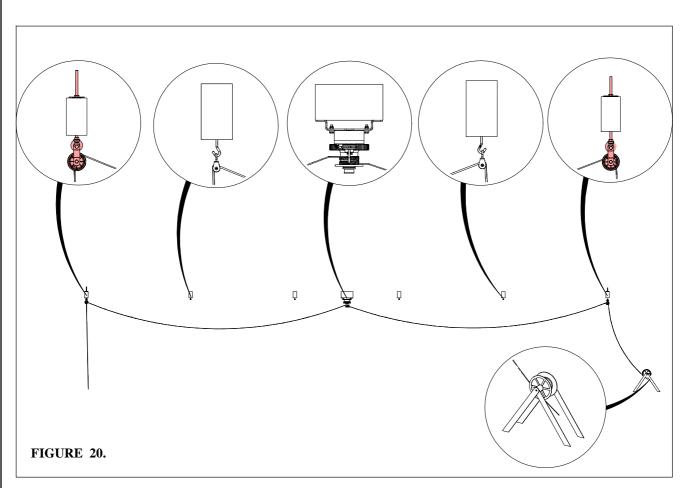


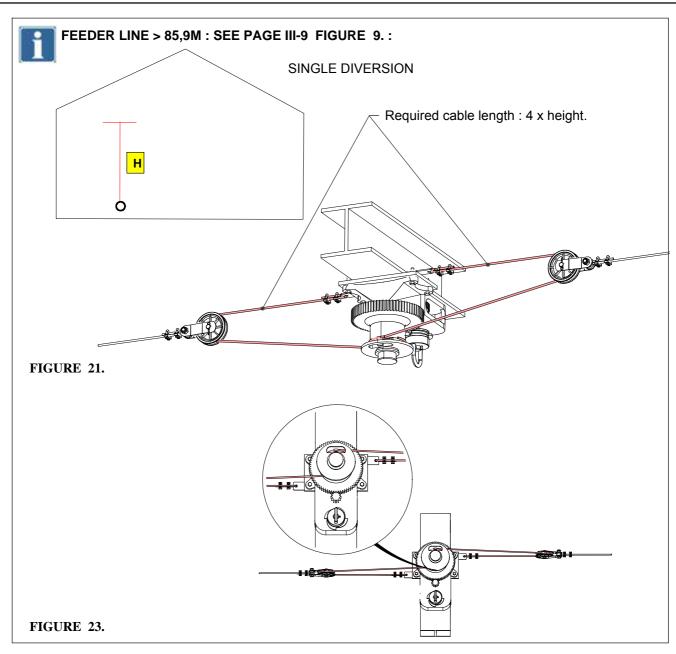


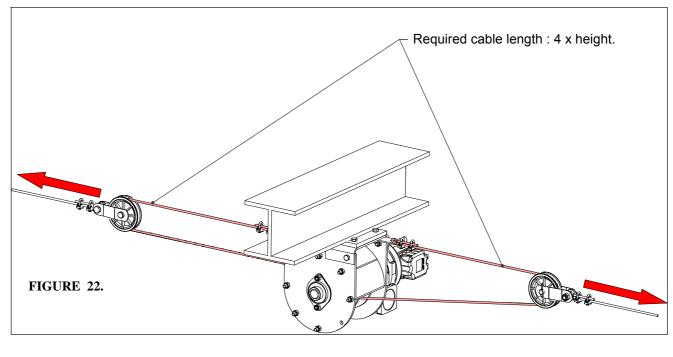


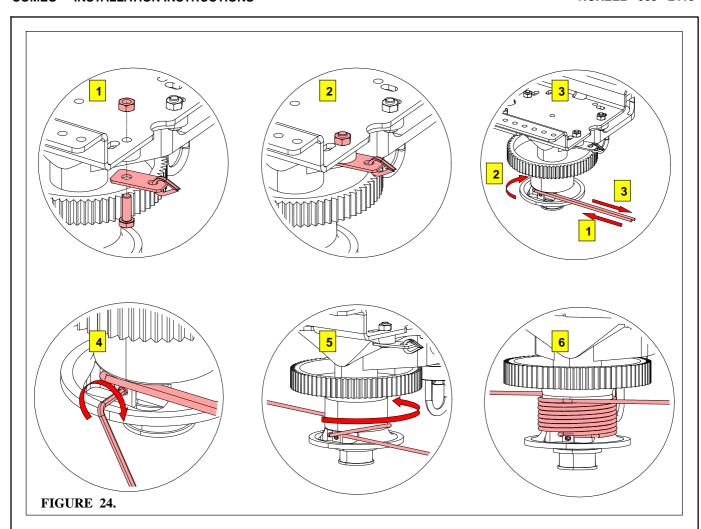


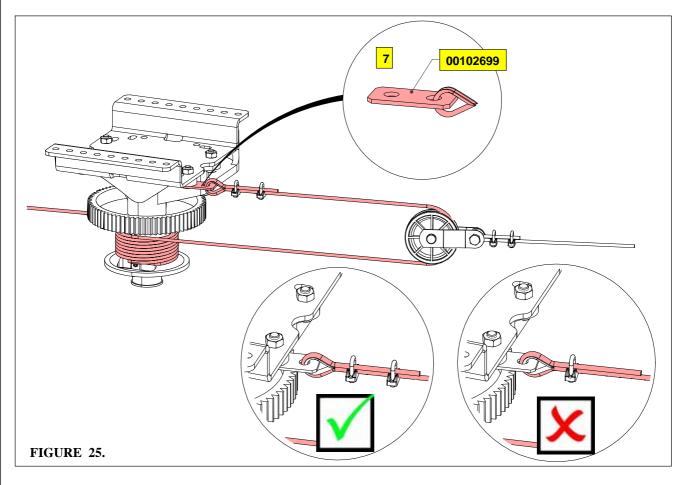
TO INSTALL THE MAIN CABLE

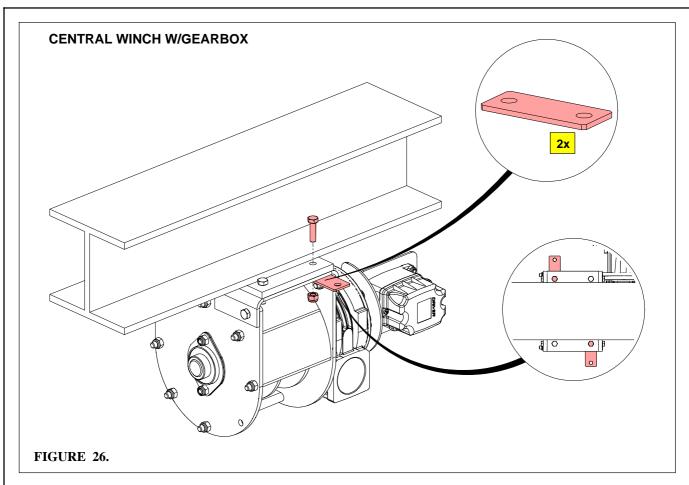


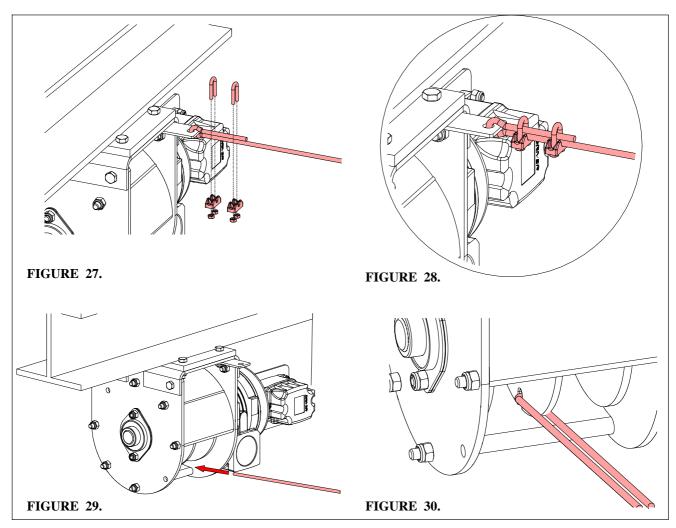


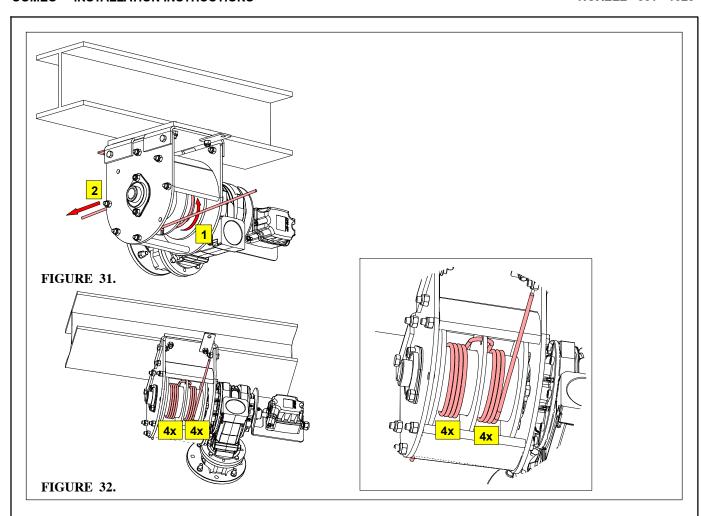




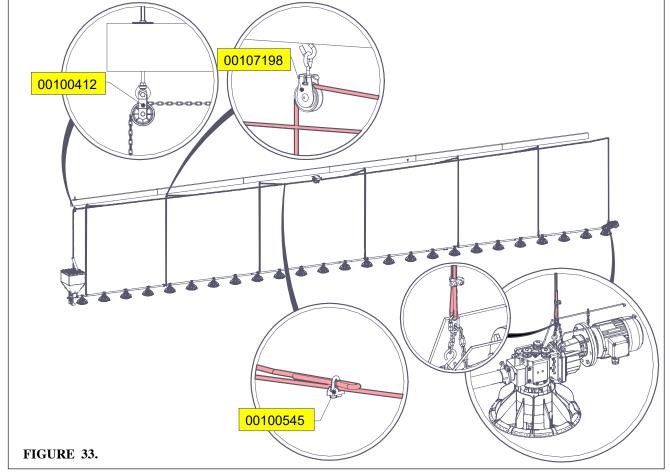


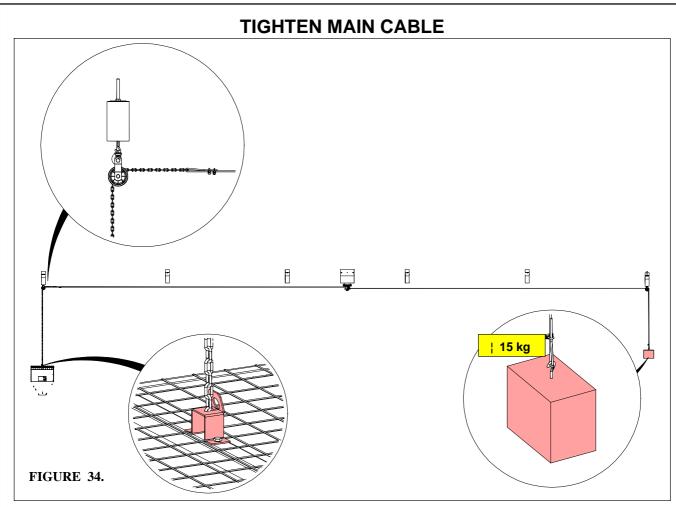


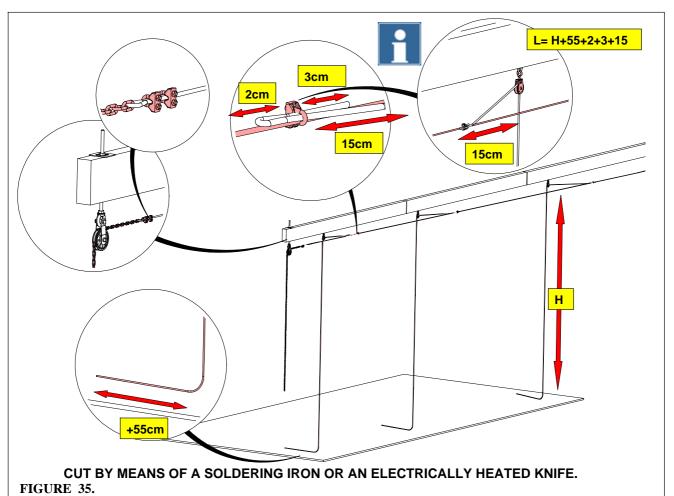






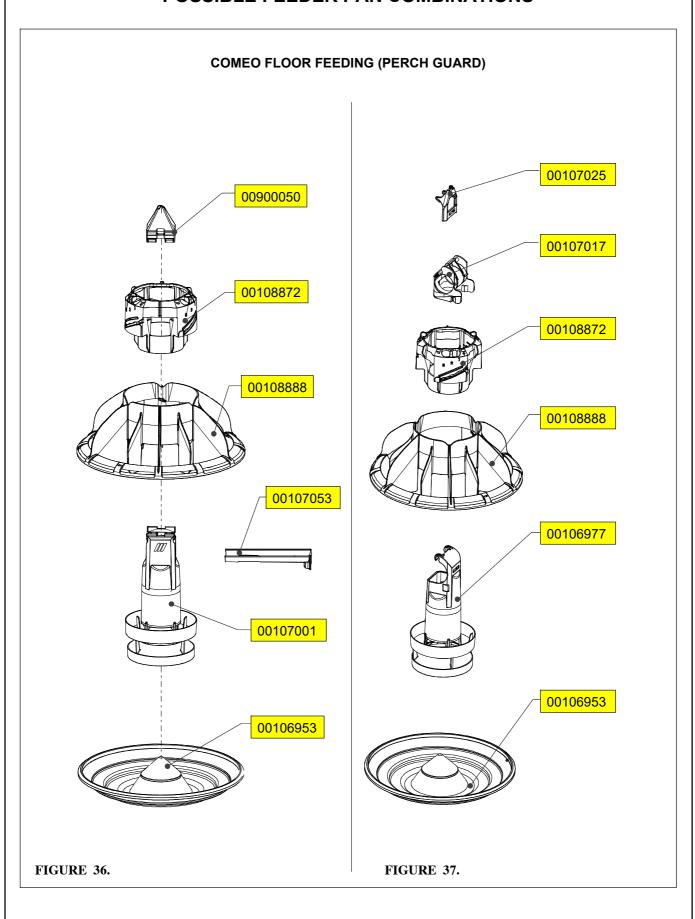




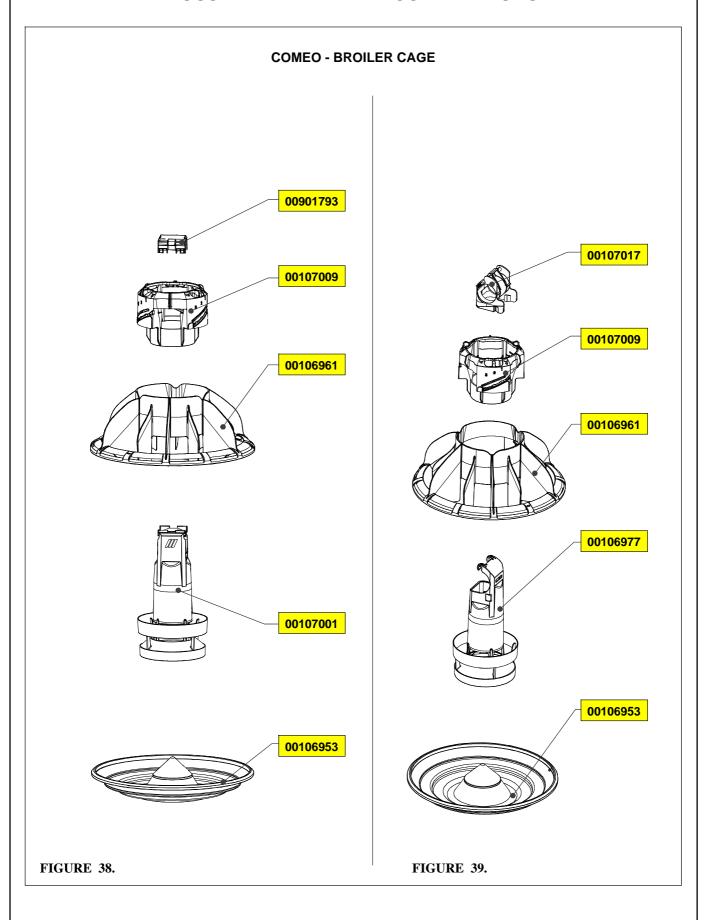


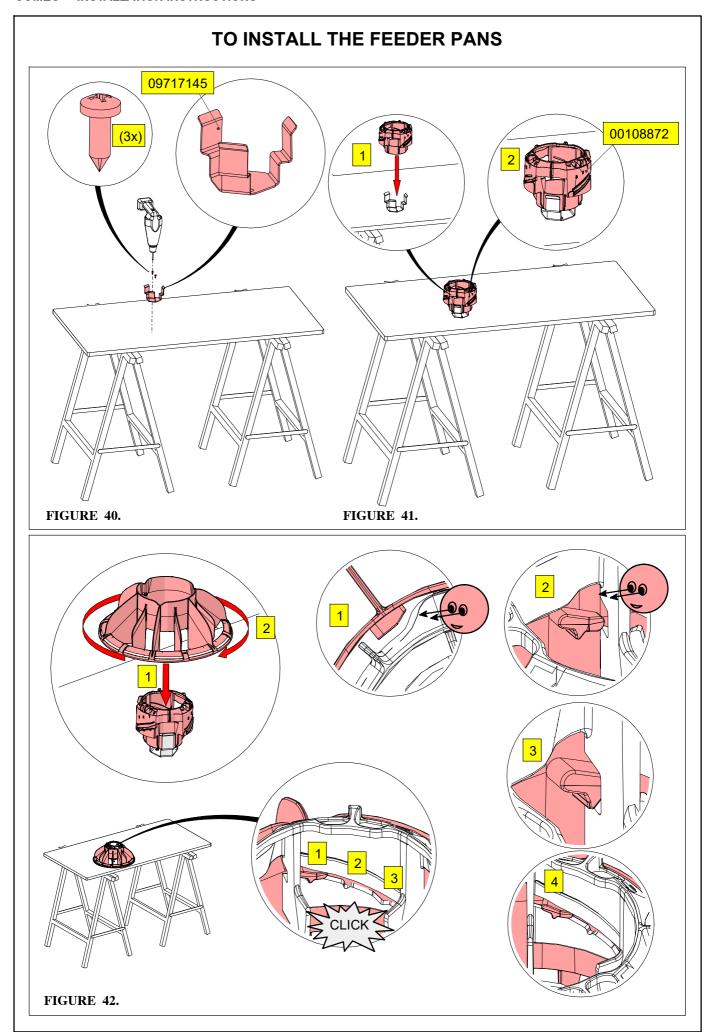
TO INSTALL THE LINE

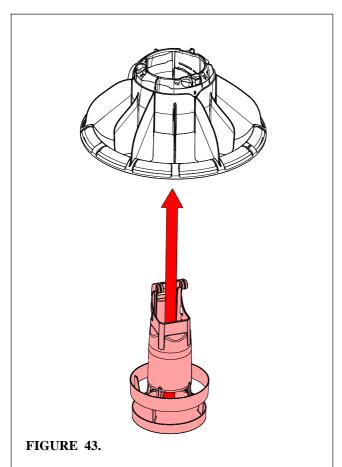
POSSIBLE FEEDER PAN COMBINATIONS

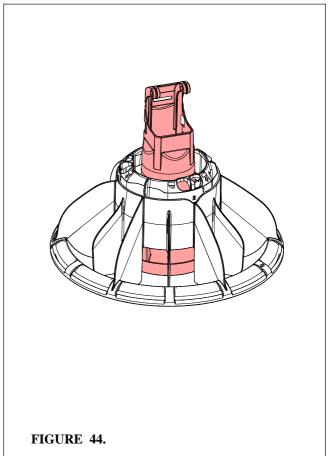


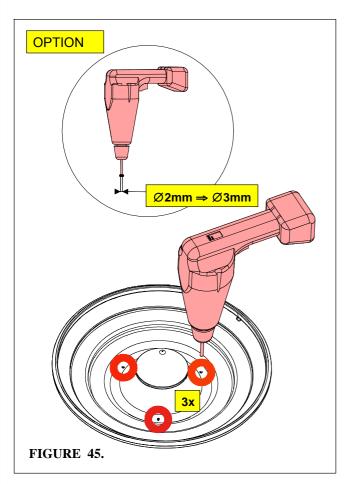
POSSIBLE FEEDER PAN COMBINATIONS

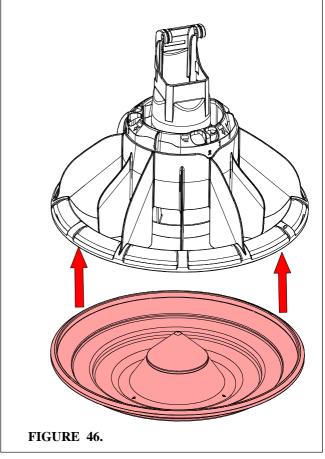


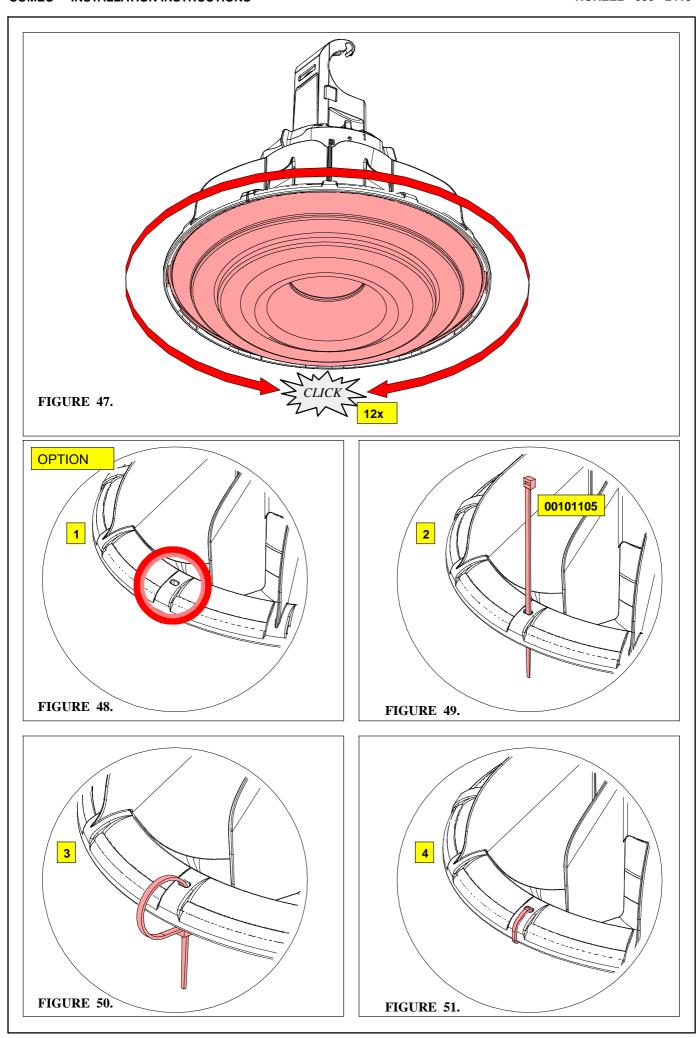


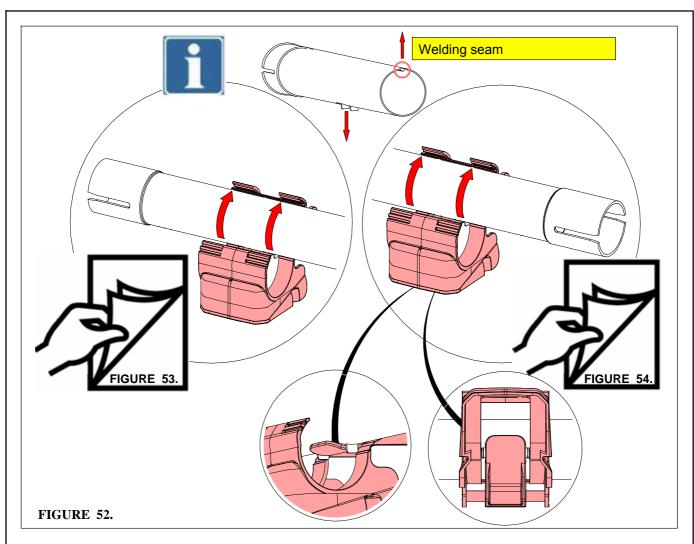


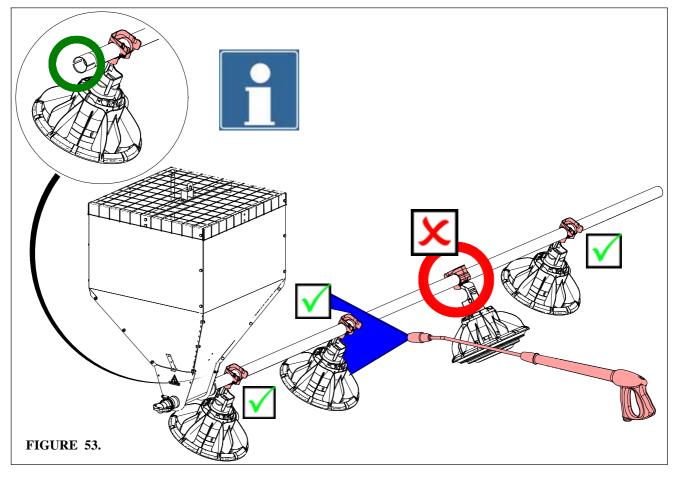


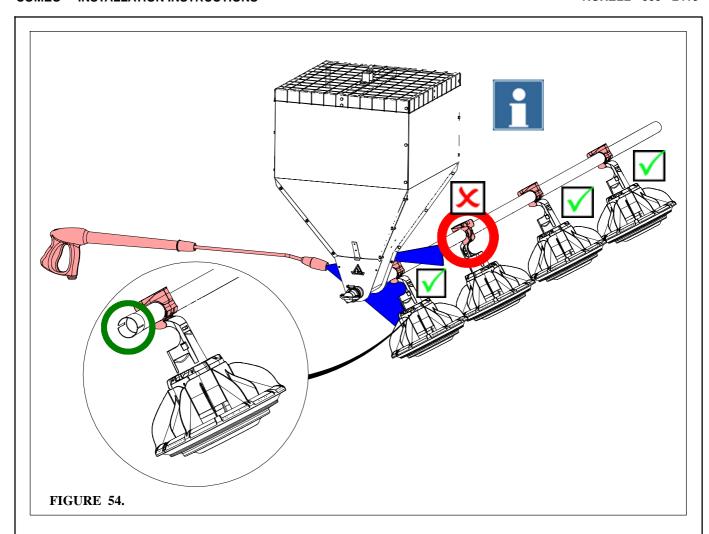


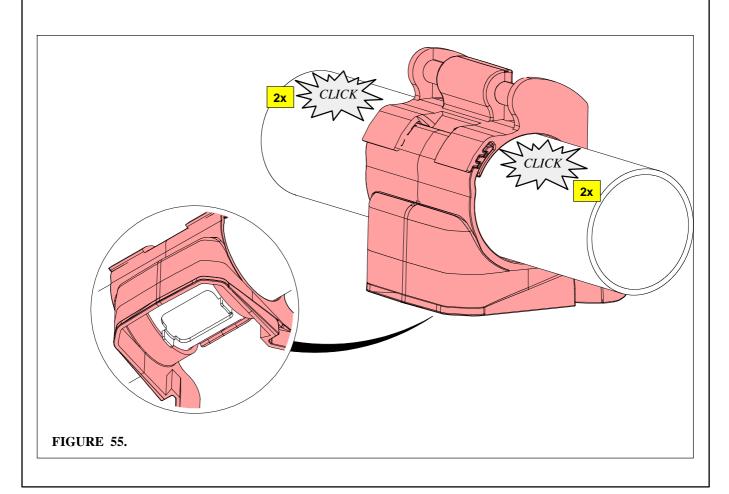


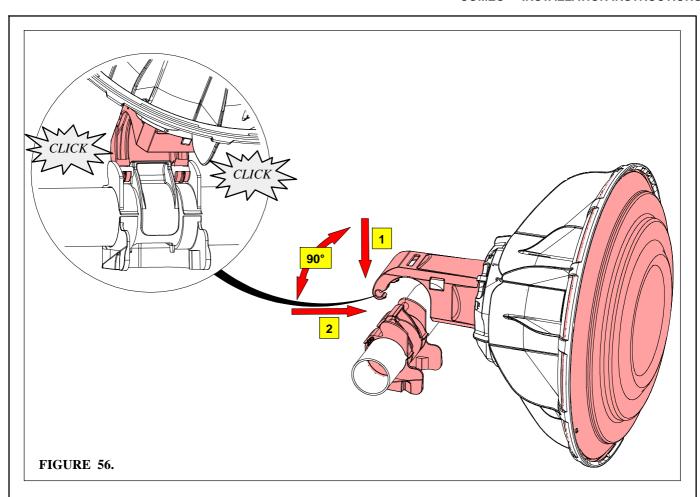


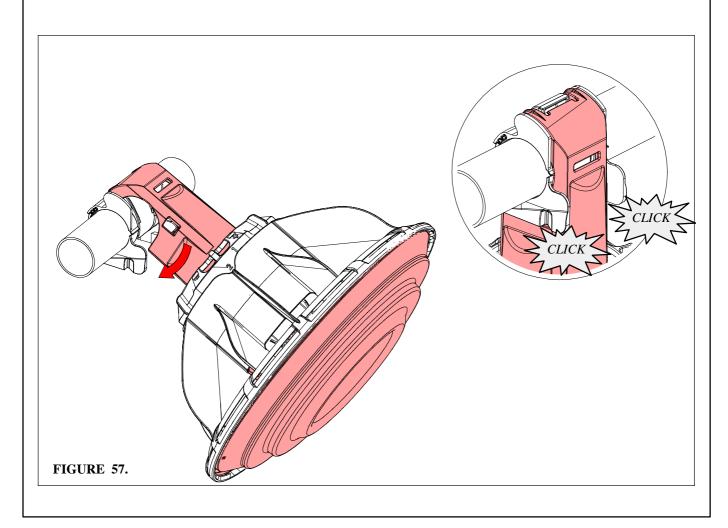


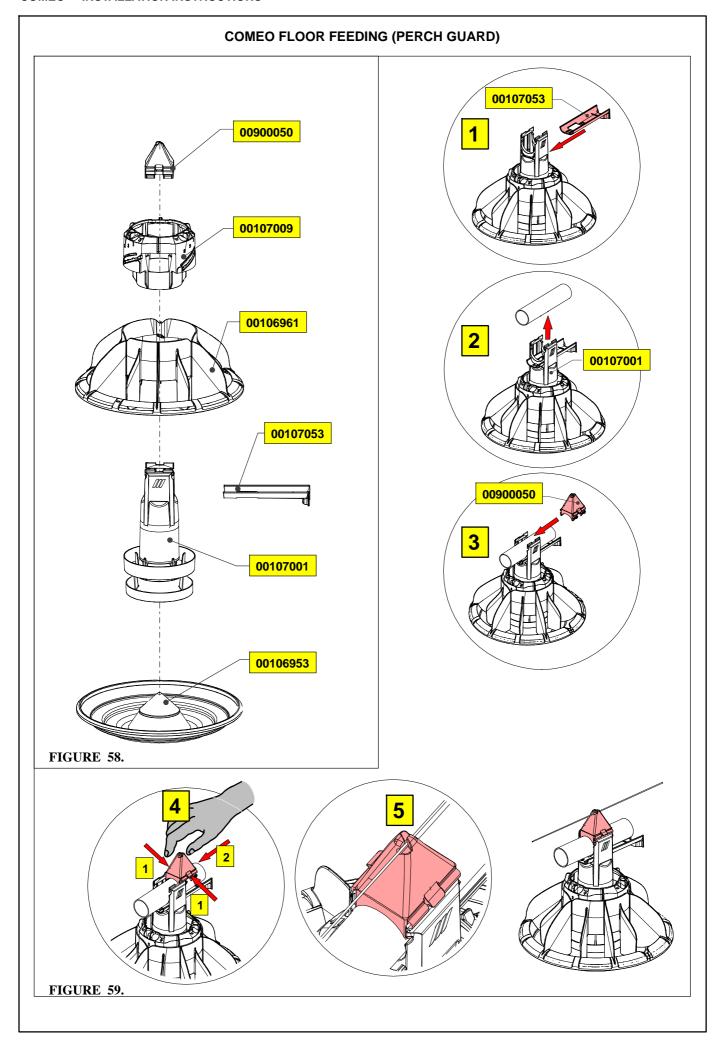


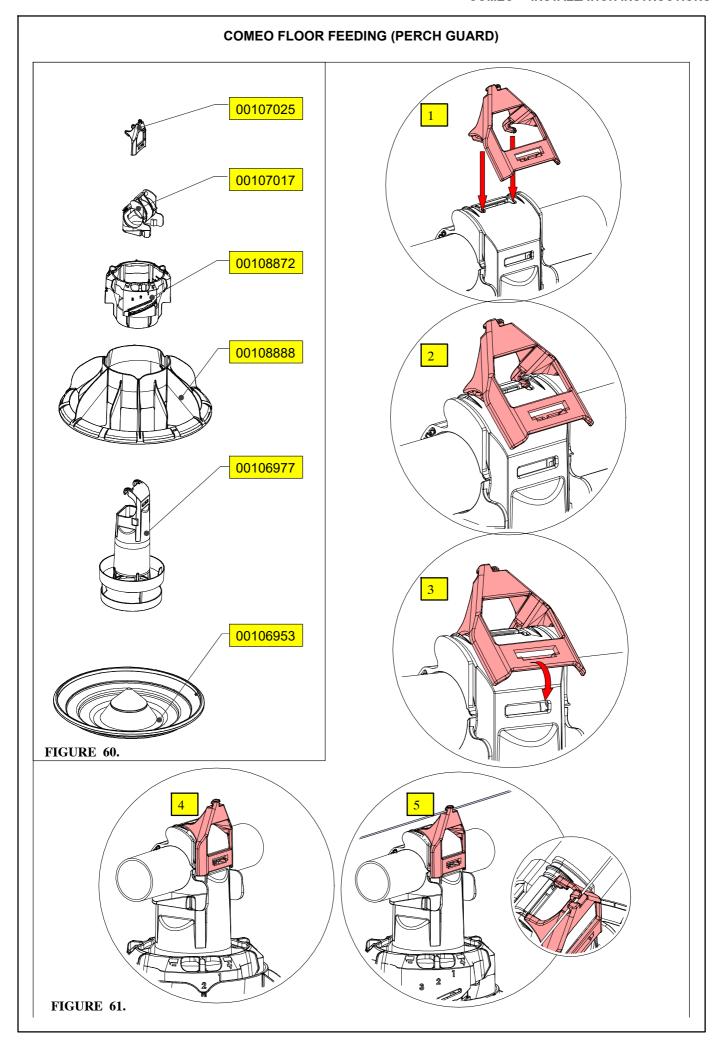


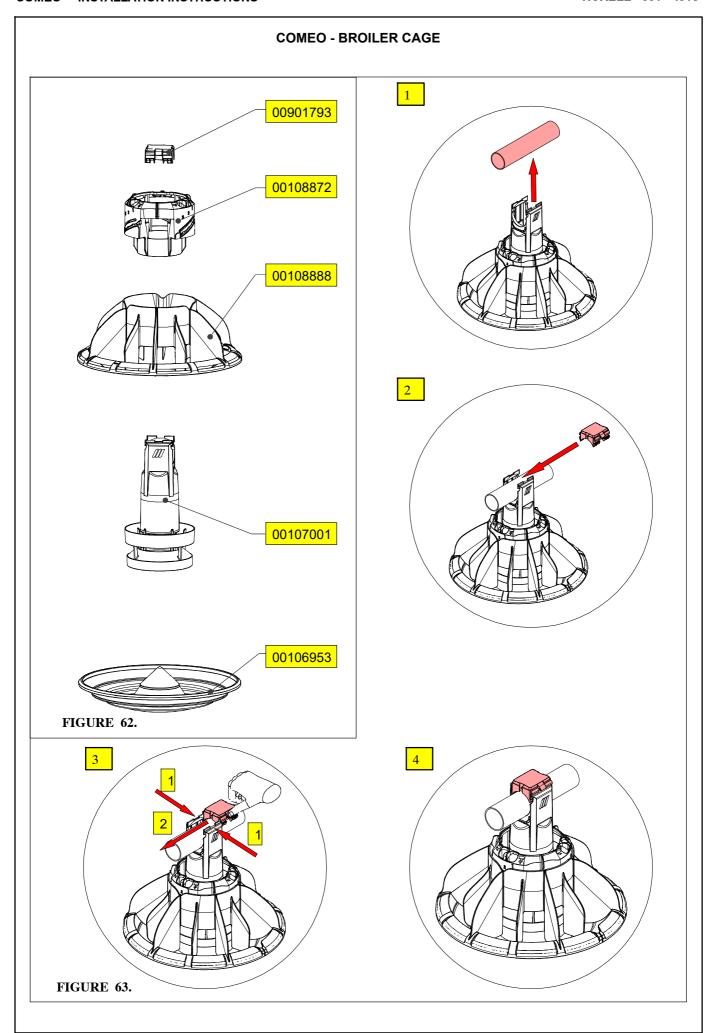


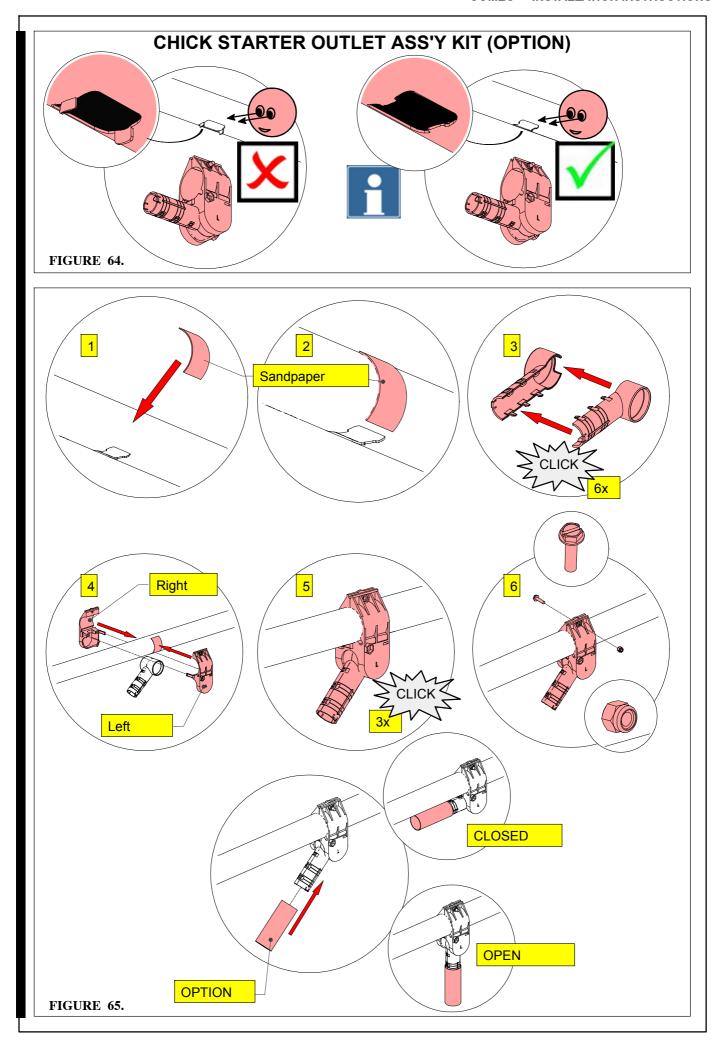


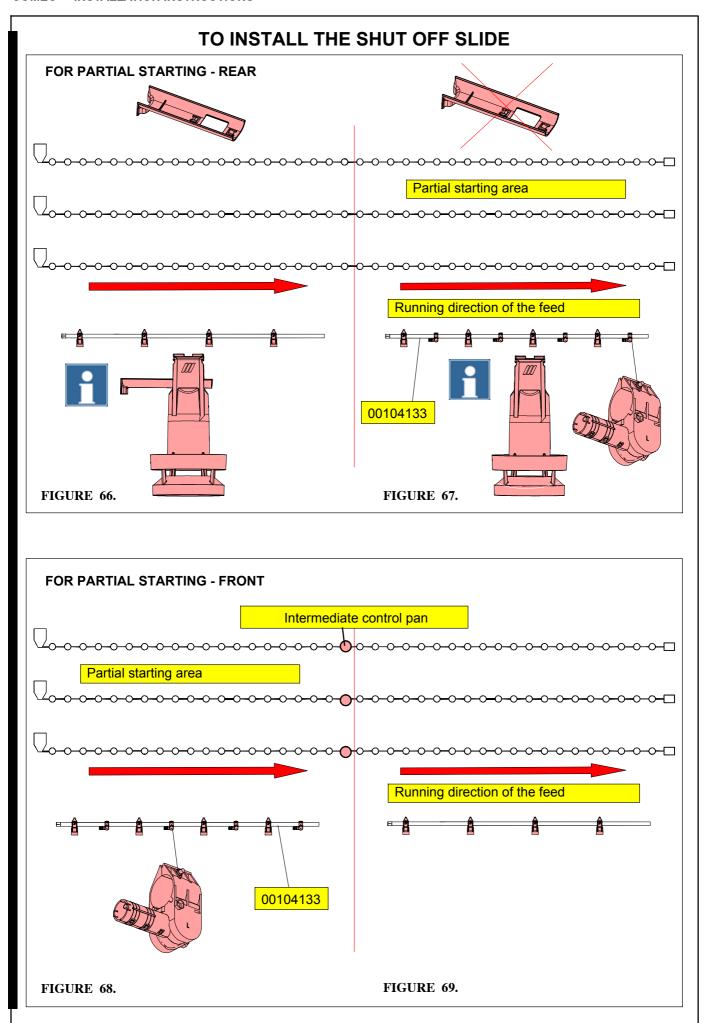


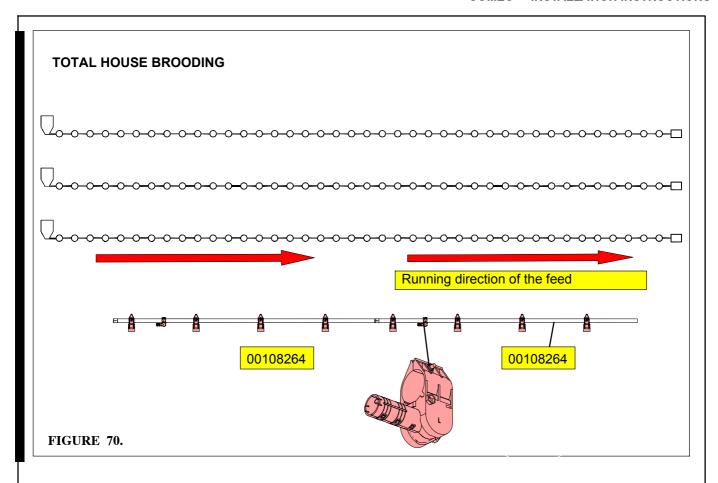




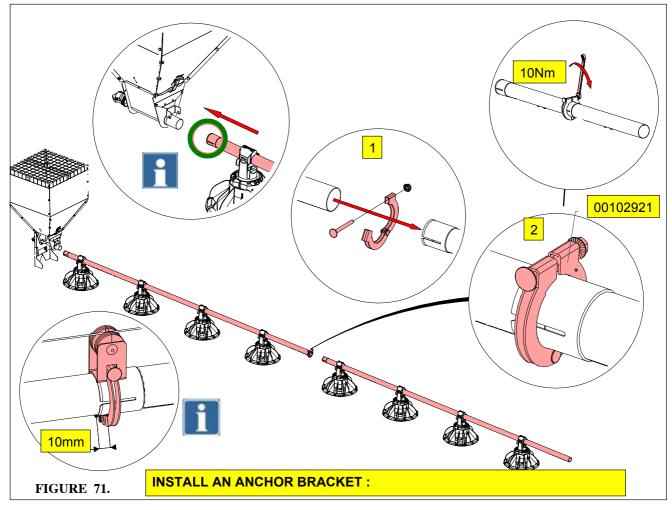


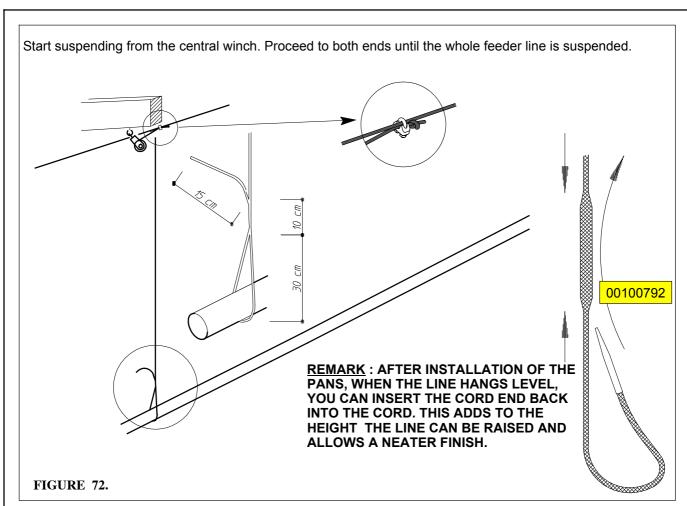




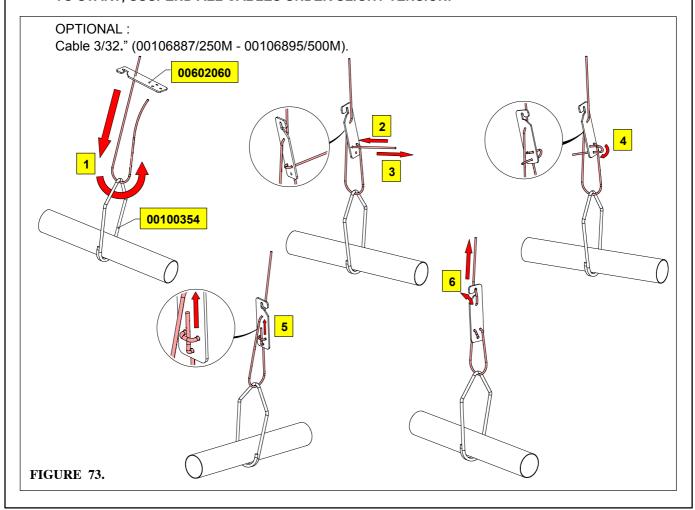


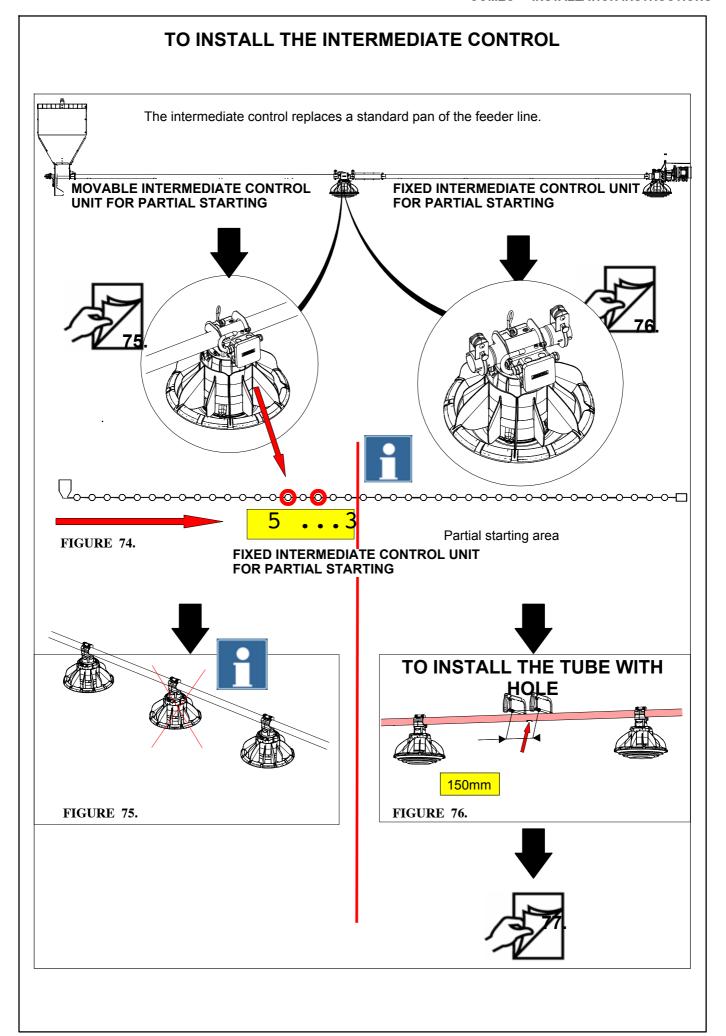
TO INSTALL THE FEEDER LINE

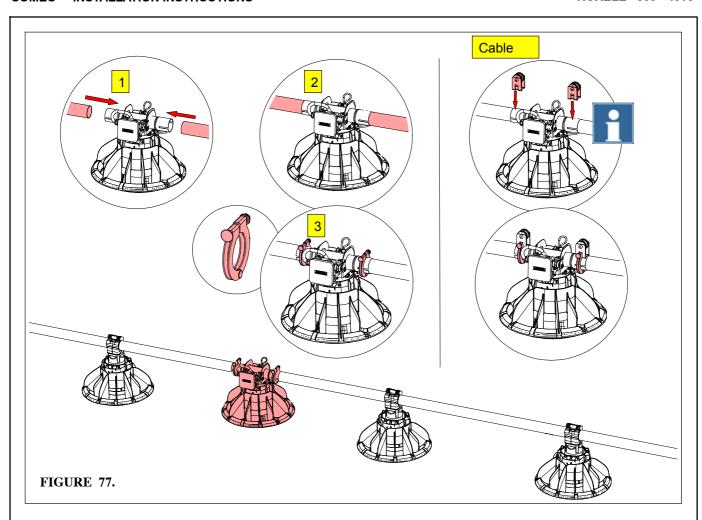




TO START, SUSPEND ALL CABLES UNDER SLIGHT TENSION.



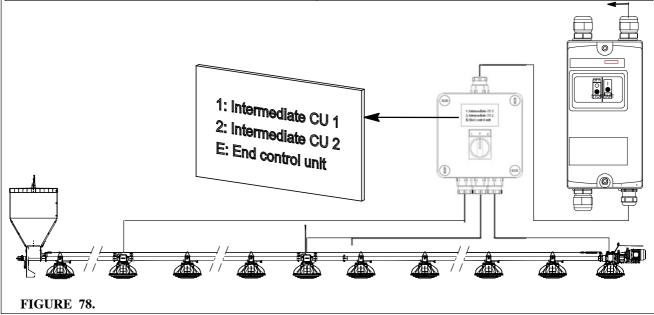




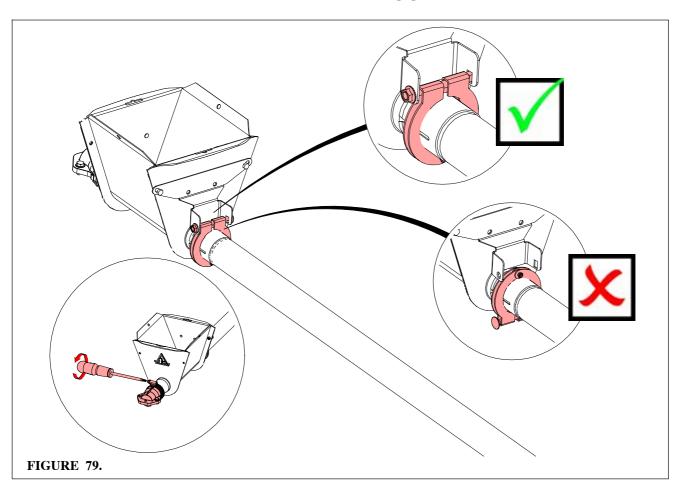
CONTROL PANEL INTERMEDIATE CONTROL UNIT (WITH SENSOR)

For an "easy use", and/or switching over from a partial area to full use of the house, you can make advantage of a control panel intermediate control unit ((optional).

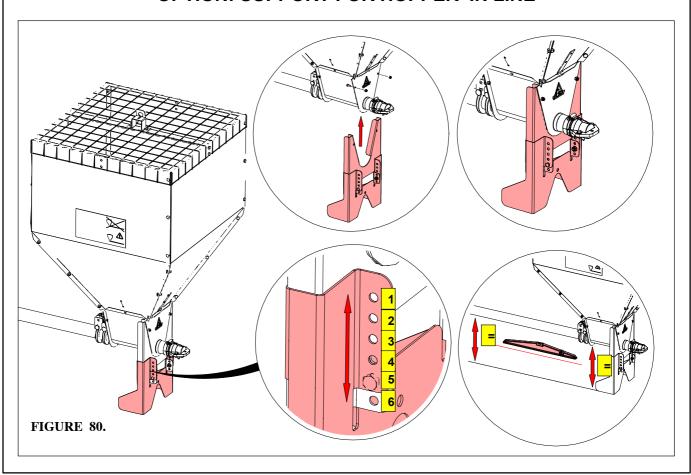
Use of	Position of the switch
1 intermediate control unit	1 and 2
2 intermediate control units	1 or 2, depending on the brooding area in the house
control unit with sensor (at the end)	E



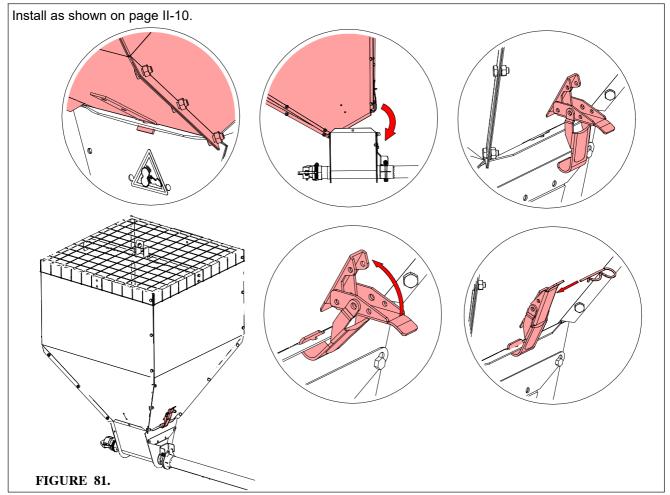
FEED INTAKE BOOT

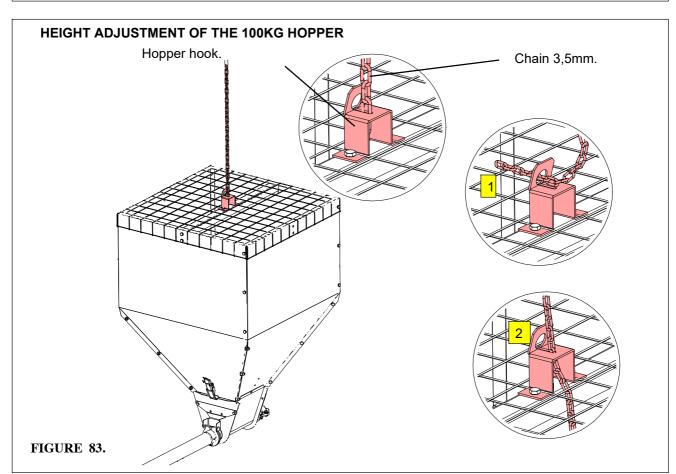


OPTION: SUPPORT FOR HOPPER IN LINE

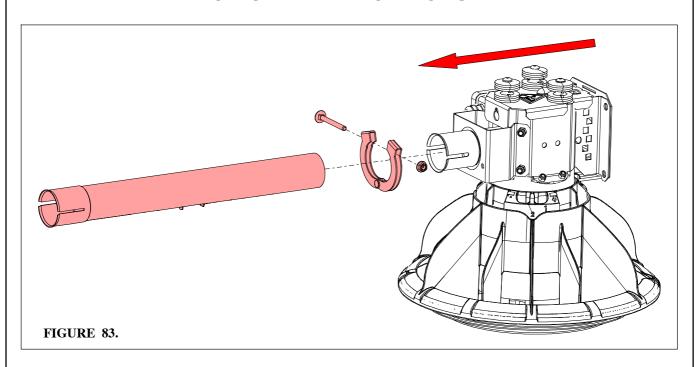


TO INSTALL AND SUSPEND THE 100KG HOPPER

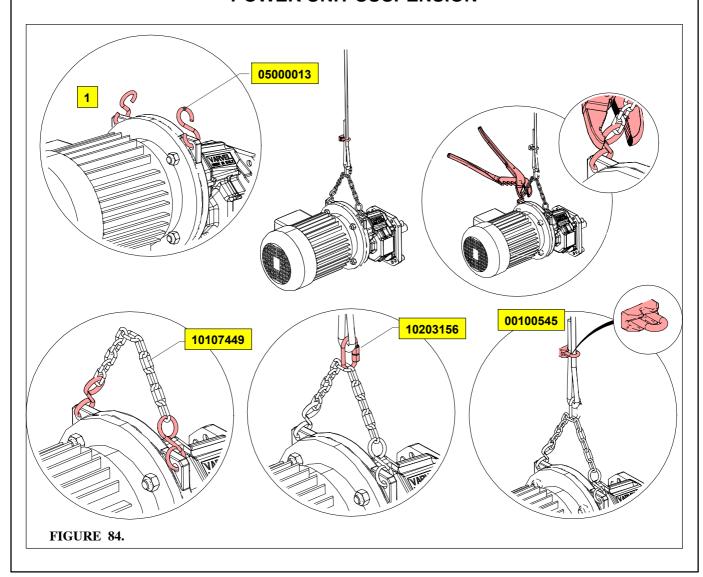




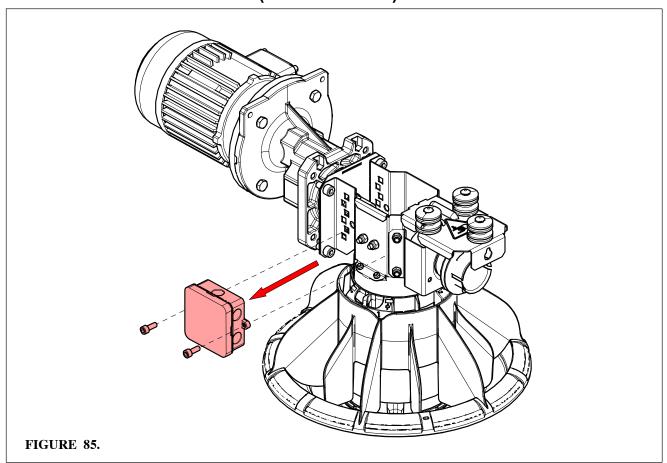
TO INSTALL THE CONTROL UNIT

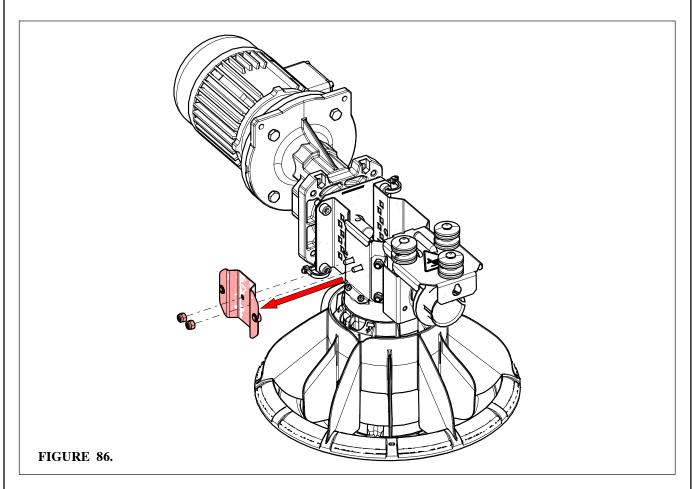


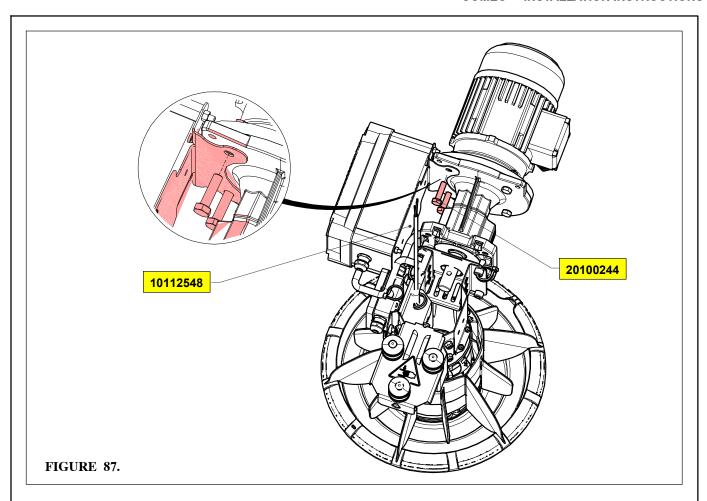
POWER UNIT SUSPENSION

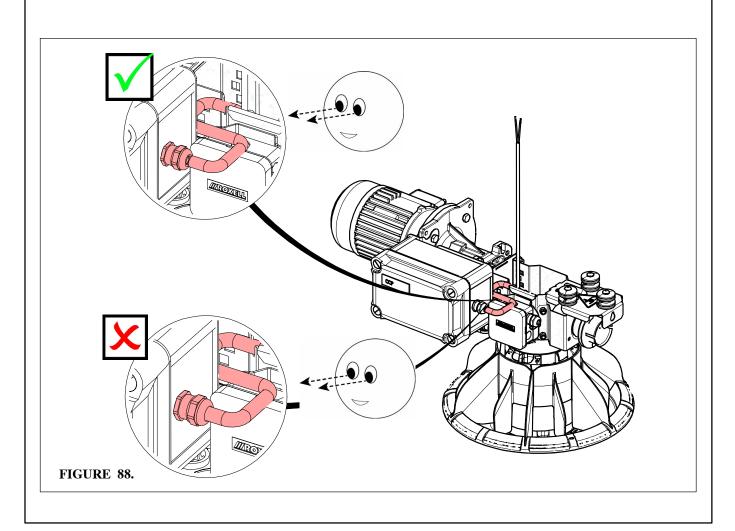


CONNECTION BOX KIT FOR CONTROL PAN (FOR US ONLY)



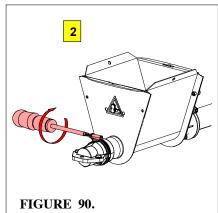


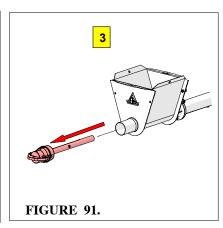


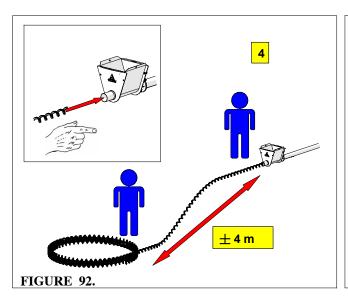


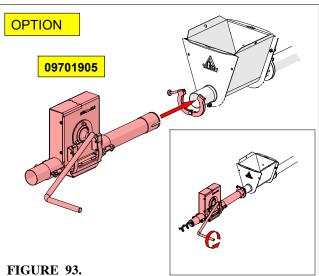
TO INSTALL THE AUGER

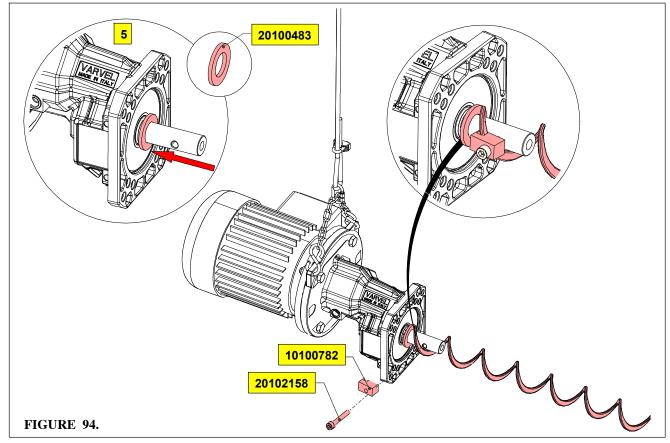


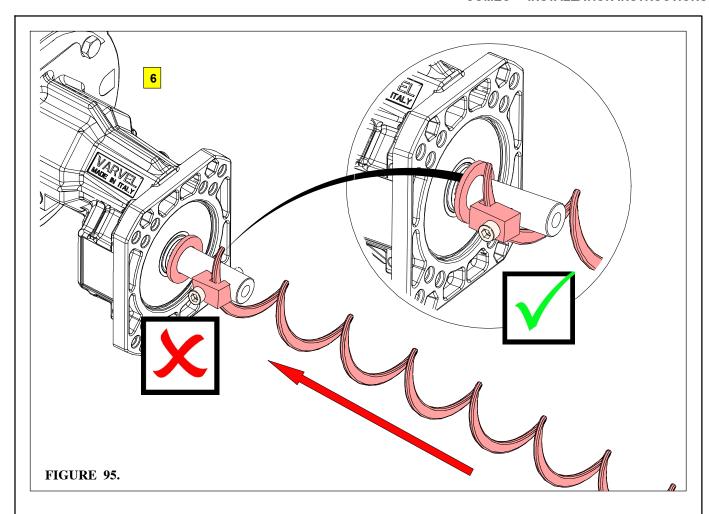


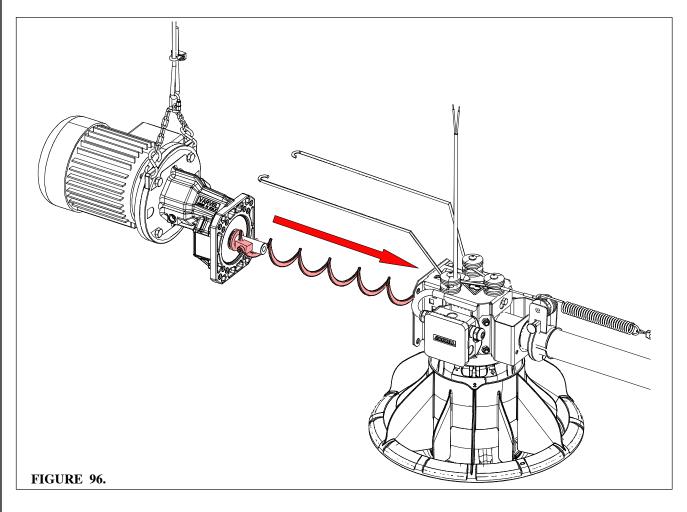


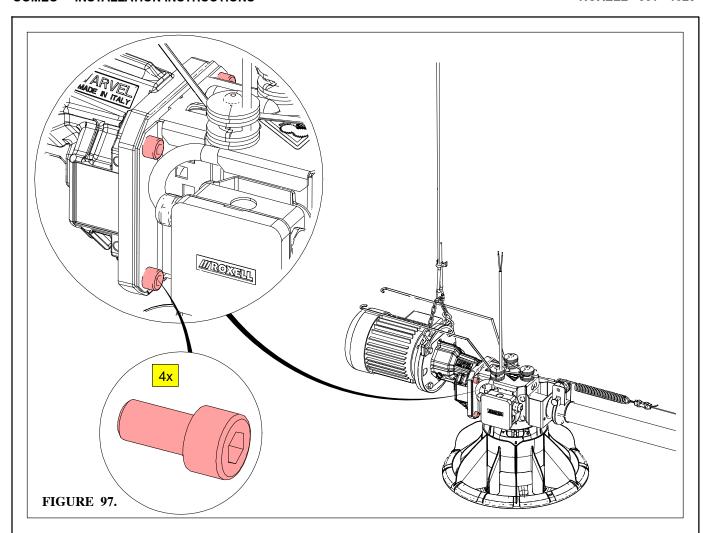


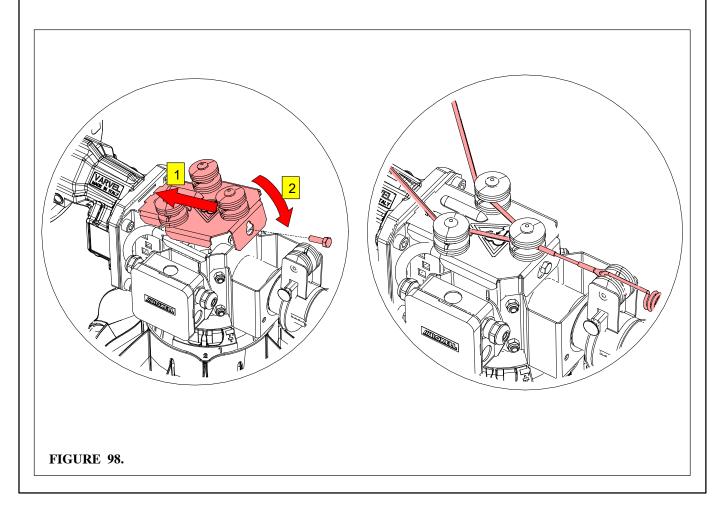


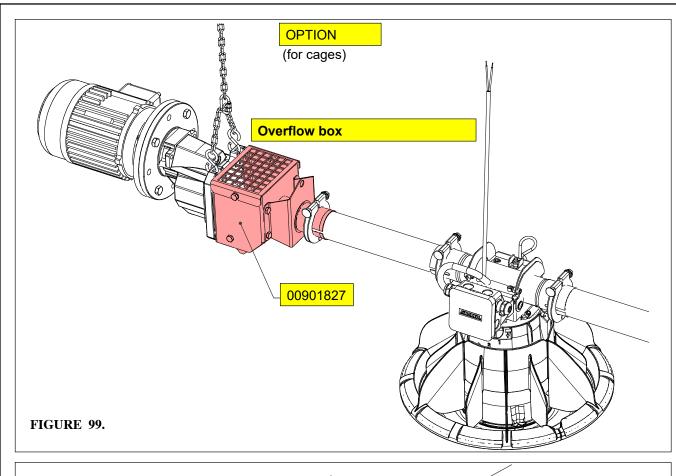


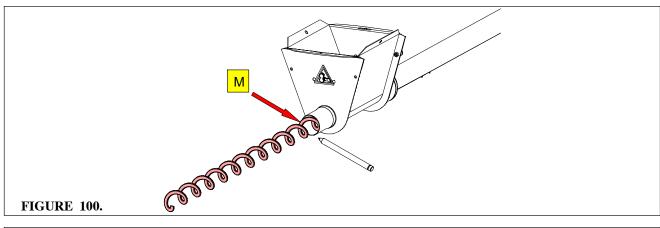


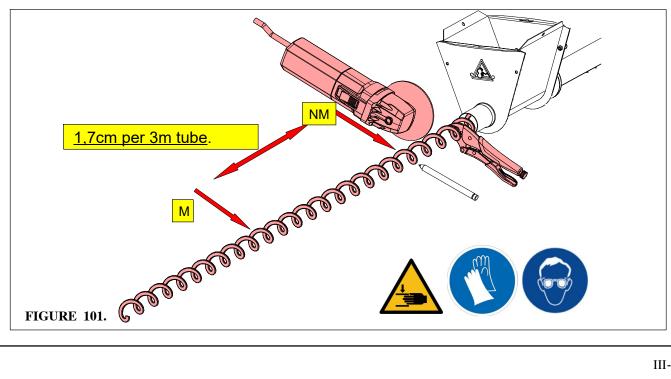












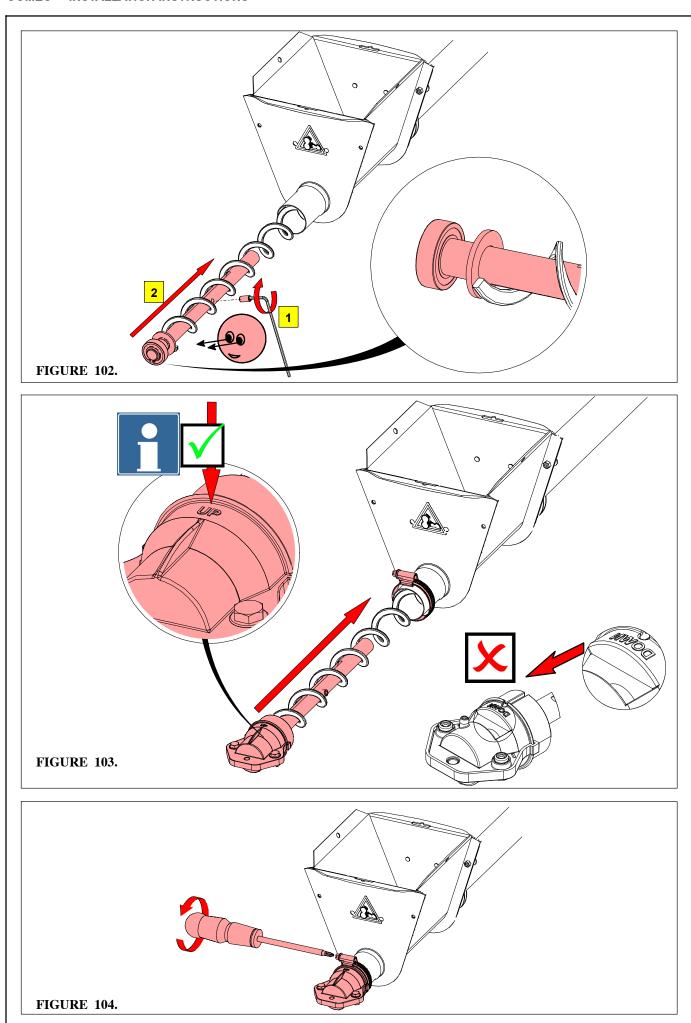
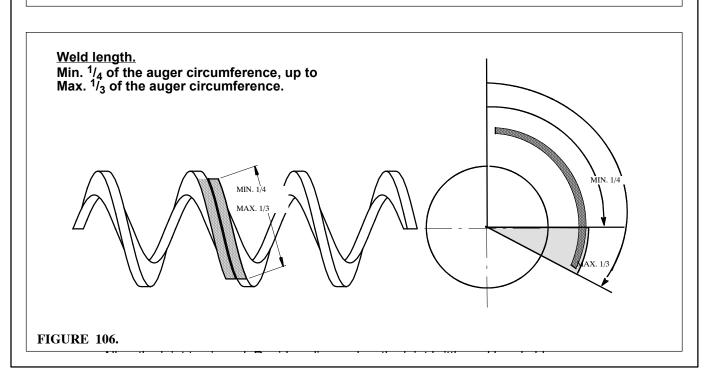
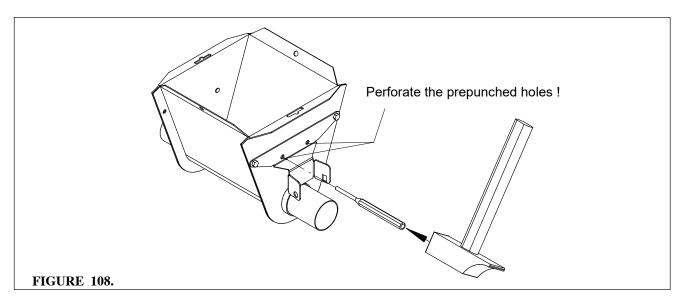


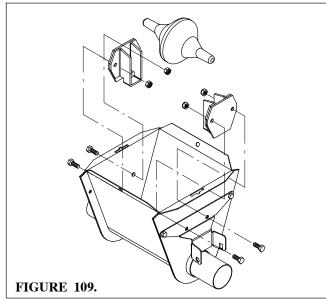
FIGURE 105.

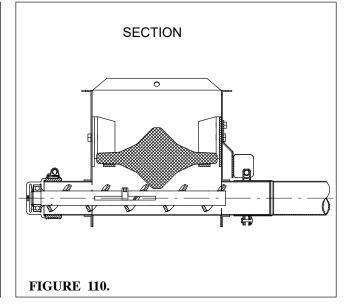
AUGER BRAZING Always use hard solder. We recommend a bronze, flux-coated rod. The joint must be well filled. Avoid sharp edges or rough corners: these wear out the tubes. Braze at low temperature.

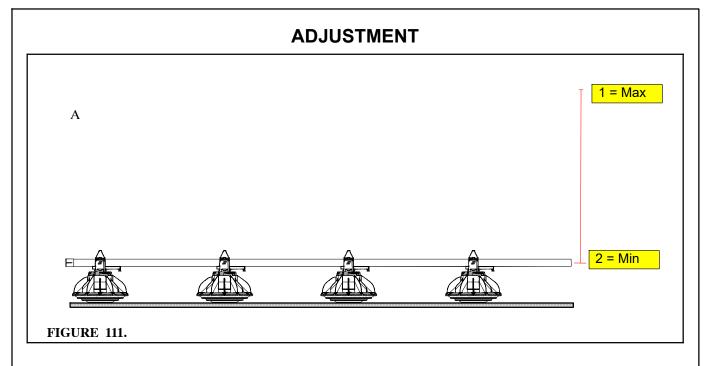


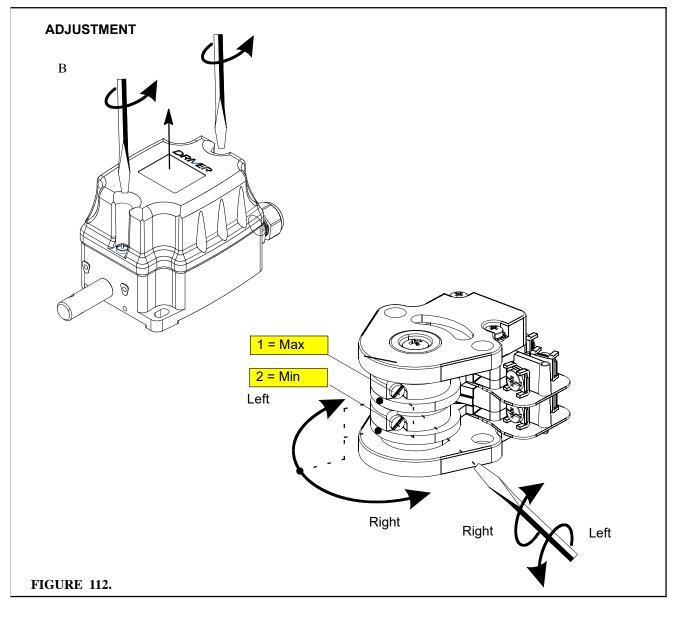
TO INSTALL THE THUMPER (OPTION)

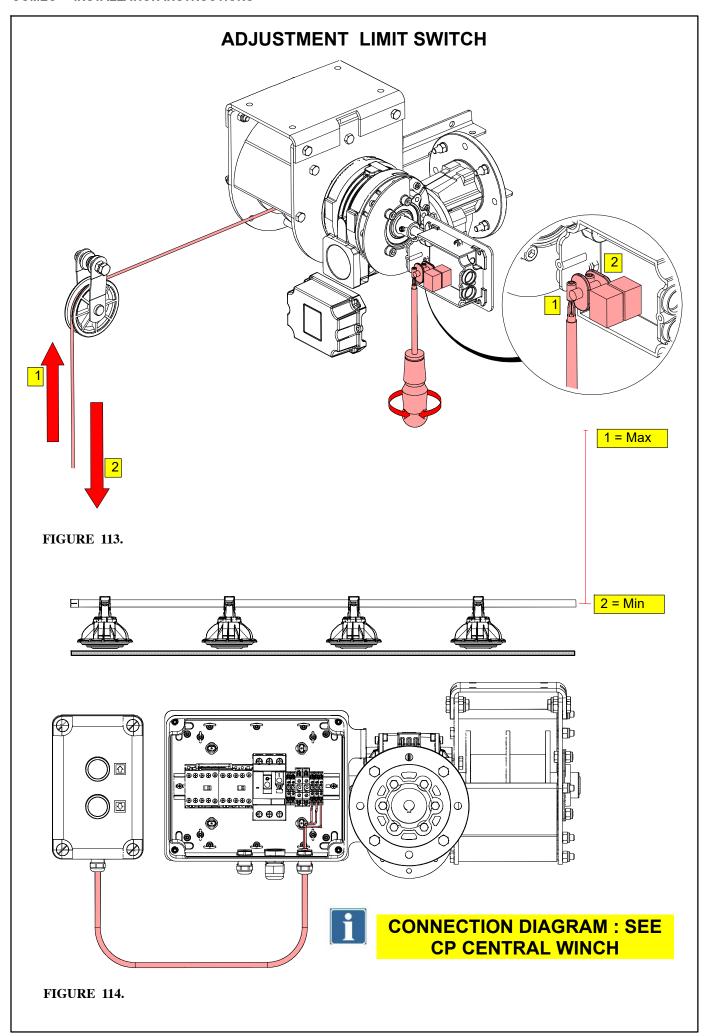


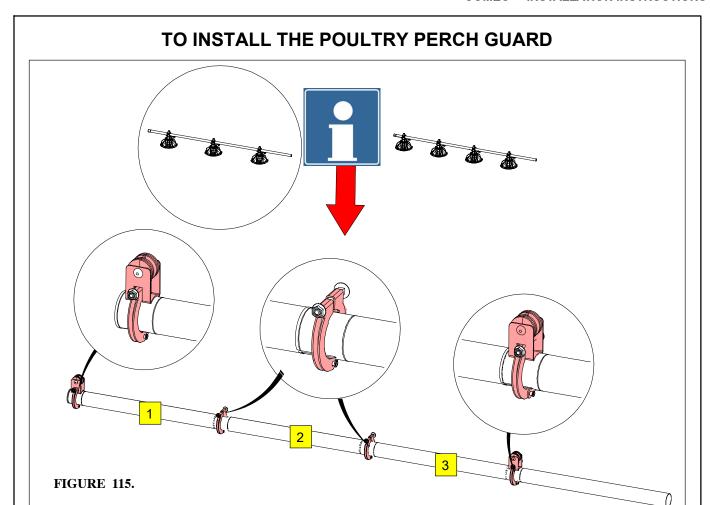


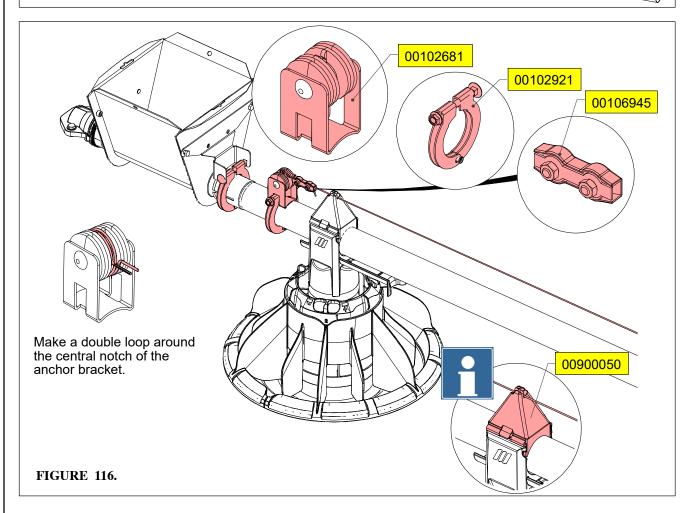


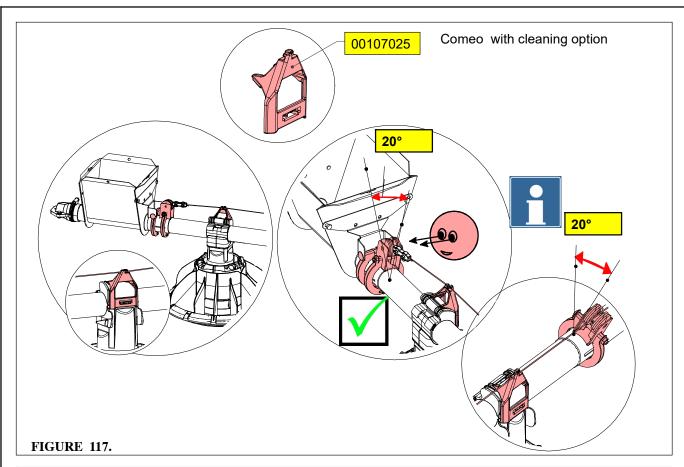


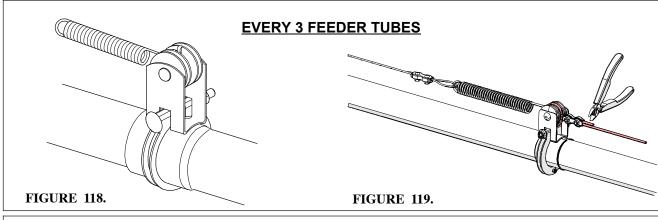


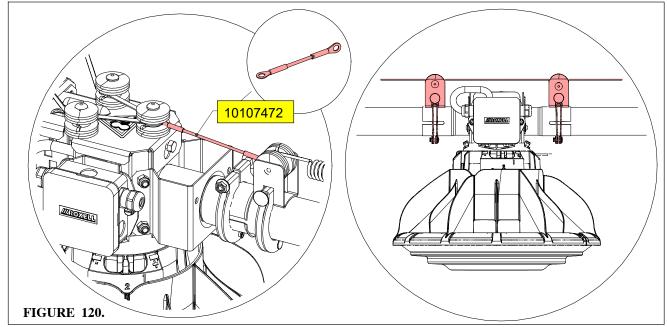


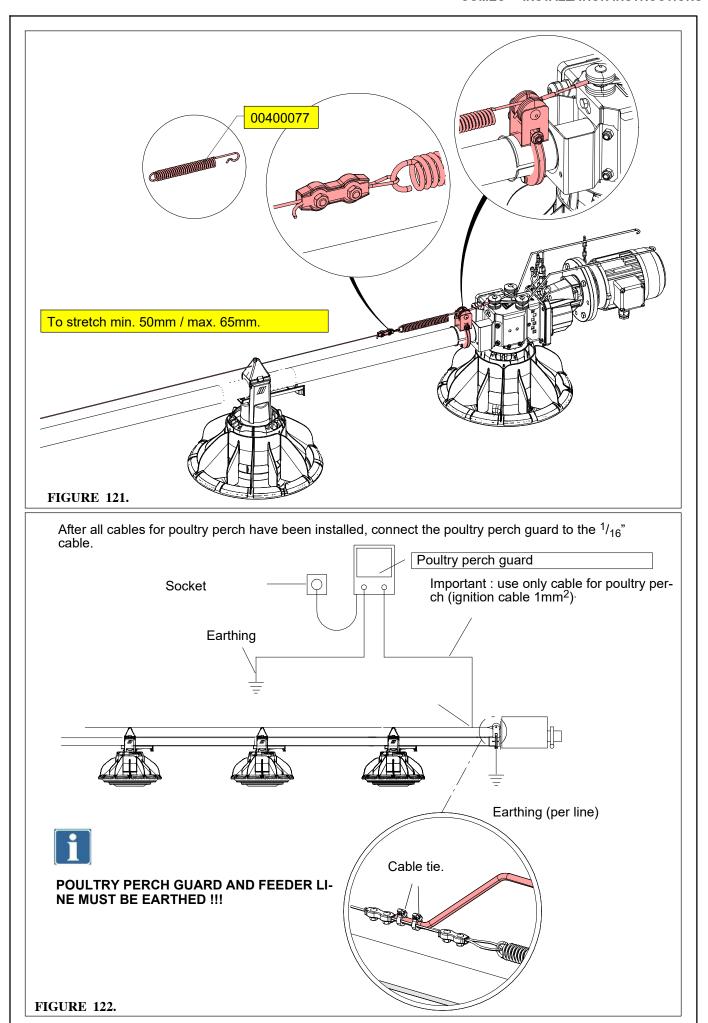












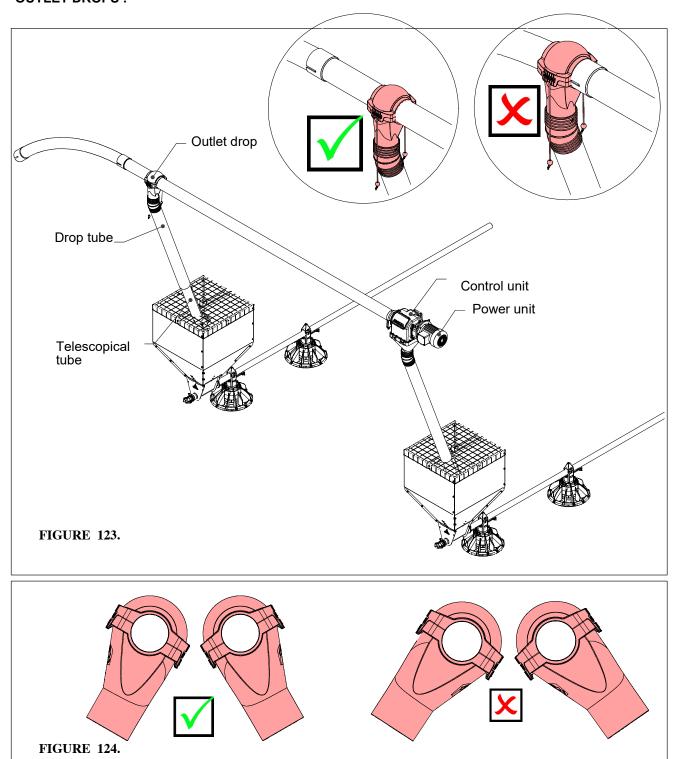
TO INSTALL THE FLEX AUGER FEED SUPPLY SYSTEM

INSTALLATION INSTRUCTIONS : SEE OUR FLEX-AUGER OPERATOR'S MANUAL. ATTENTIVELY READ THESE INSTRUCTIONS.

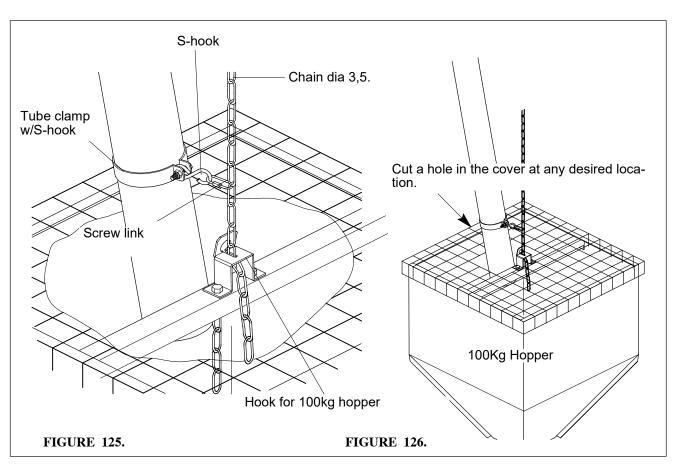
ATTENTION:

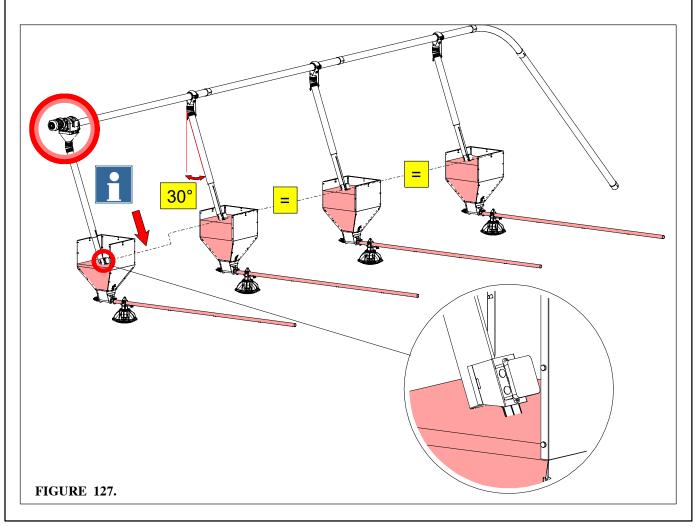
USE AS LITTLE ELBOWS AS POSSIBLE.

MAKE SURE THAT THERE ARE NO TUBE CONNECTIONS AT LOCATIONS WHERE YOU NEED OUTLET DROPS!

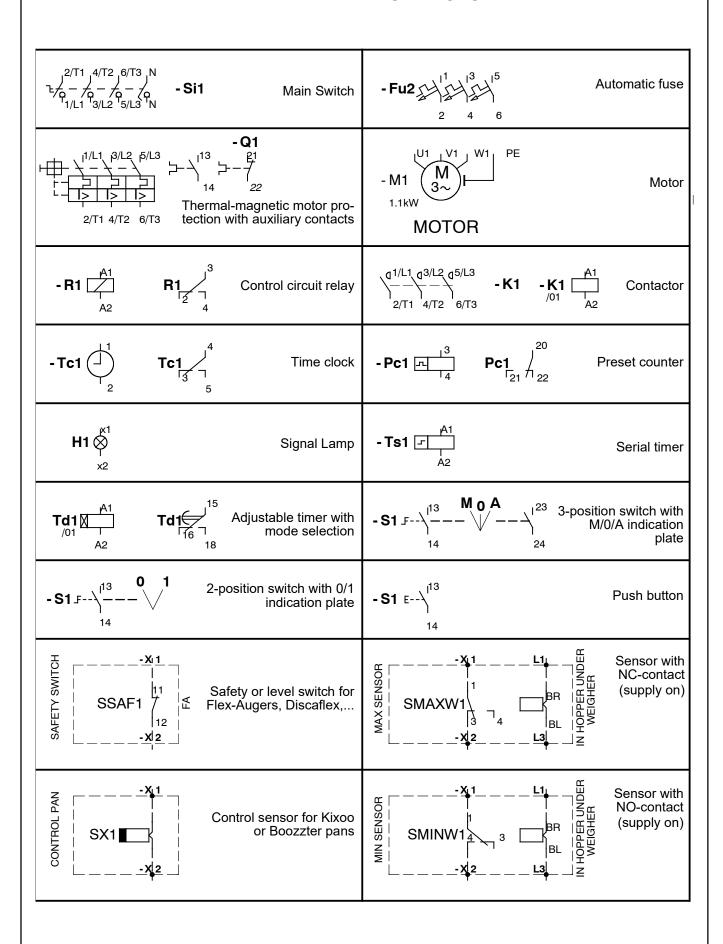


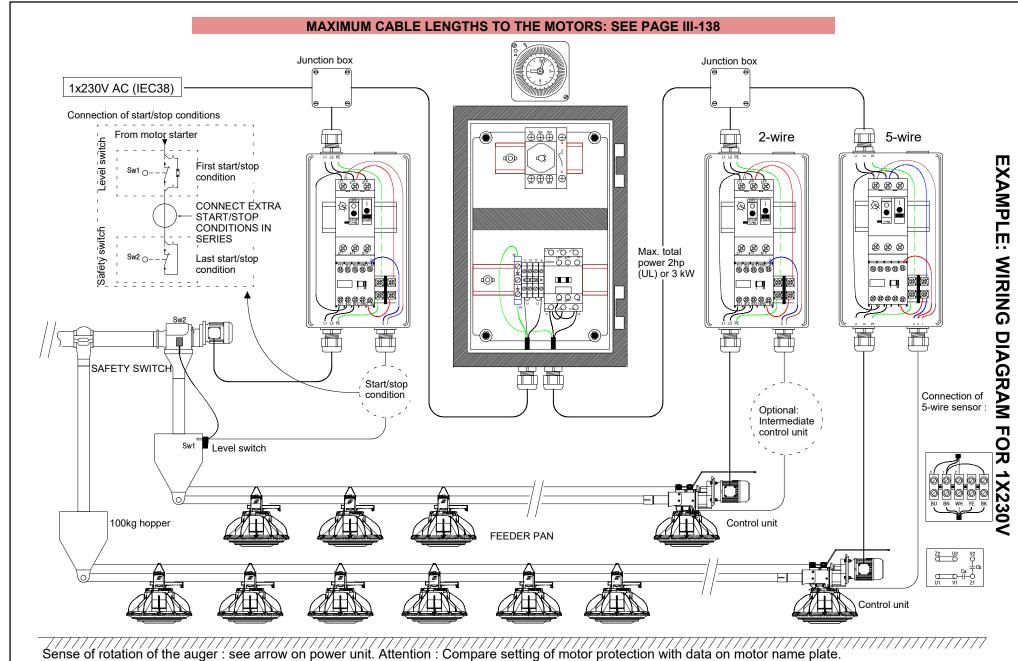
TO INSTALL THE TELESCOPICAL TUBE

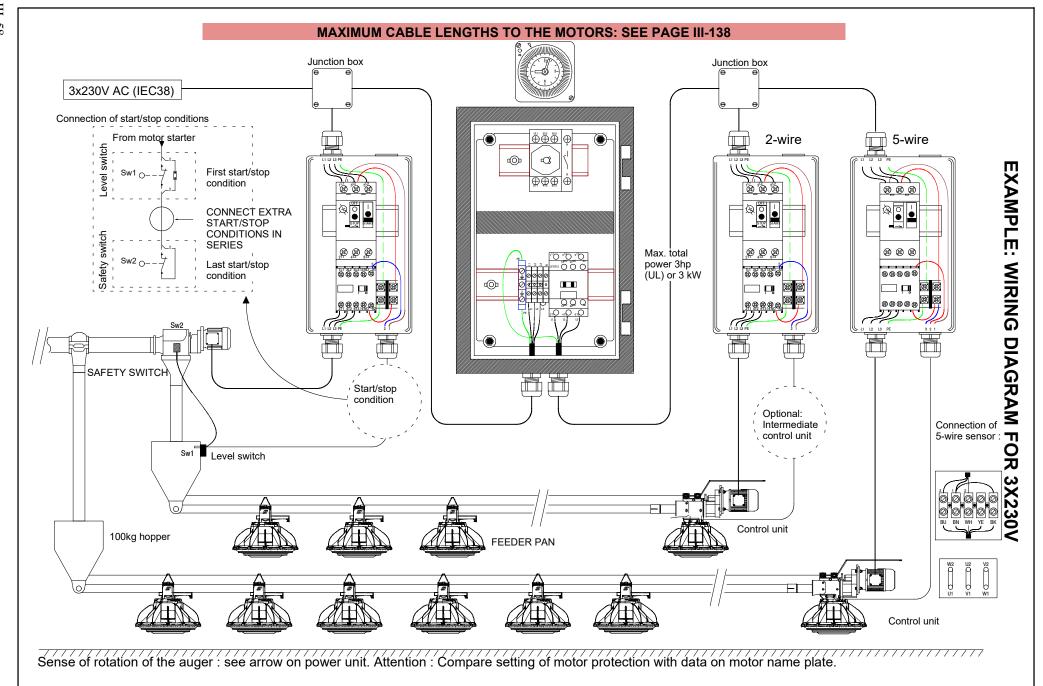


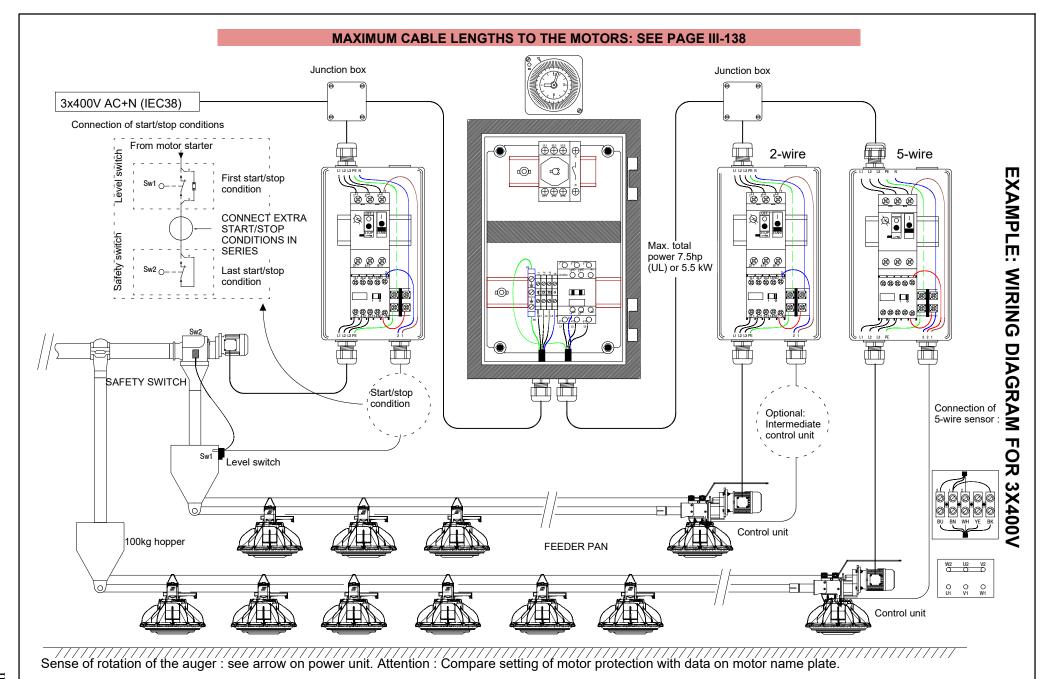


ELECTRICAL SYMBOLS





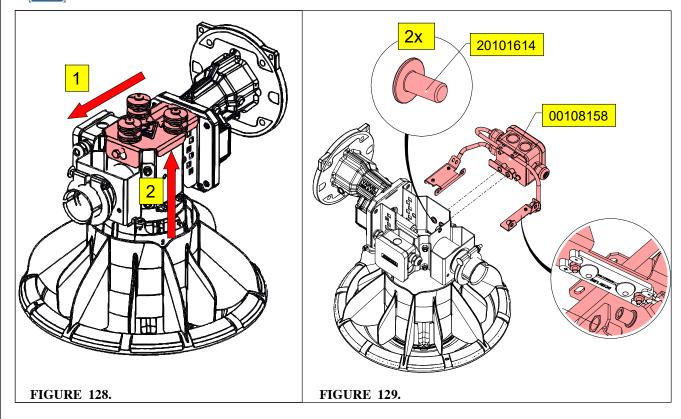


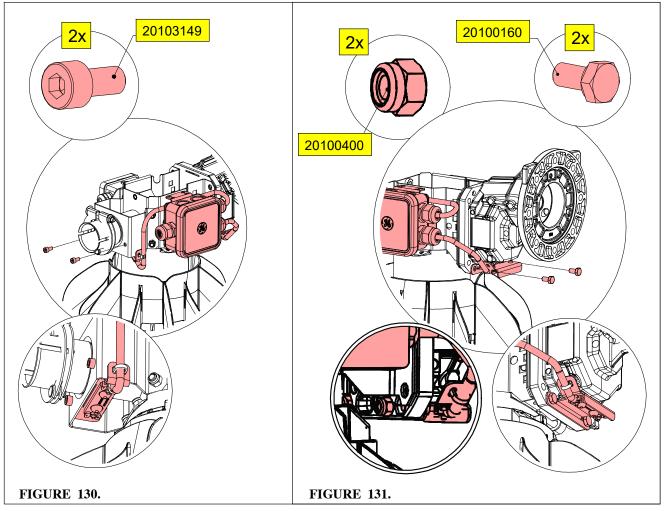


LED LIGHT KIT FOR CONTROL UNIT



CONNECT THE POWER SUPPLY TO 100-240 VAC, 50/60HZ.; 0,22A/CU.

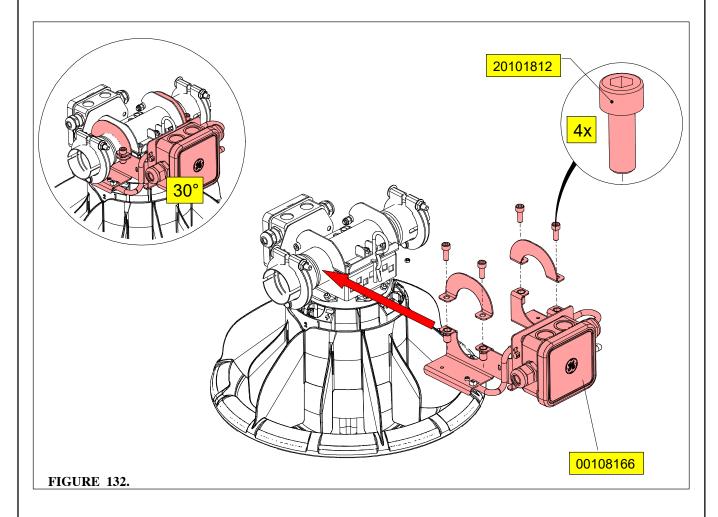




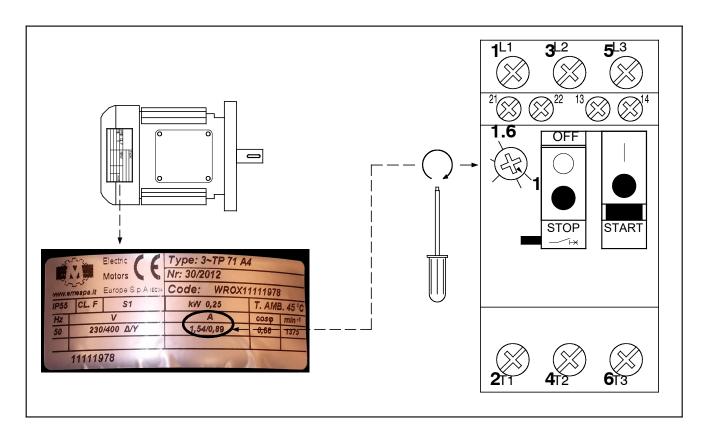
LED LIGHT KIT FOR INTERMEDIATE CONTROL UNIT



CONNECT THE POWER SUPPLY TO 100-240 VAC, 50/60Hz.; 0,22A/CU.



MOTOR PROTECTION



MAXIMUM CABLE LENGTHS TO THE MOTORS

Calculation method:	IEC-HD 60364-5
Cable type:	PVC – XLPE – Silicon
Placing:	Open cable trough
Materials used:	Schneider Electric GV2 motor protections

Please be aware that you have to follow the local regulations for your country!

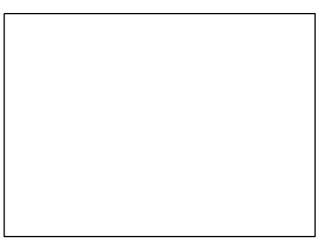
Motor Power (kW)	Net voltage	Protection	Max. cable length (m)	Wire gauge (mm²)
0.12			0 - 442	1.5
	3x230V 50Hz	GV2ME04	443 -736	2.5
			737 - 1179	4
	3x400V 50Hz	GV2ME03	0 - 1232	1.5
			1233 - 2053	2.5
			2054 - 3285	4
	1x230V 50Hz	GV2ME07	0 - 110	1.5
			111 - 185	2.5
			186 - 297	4
	-	GV2ME06	0 - 174	1.5
0.18	3x230V 50Hz		175 - 290	2.5
			291 - 464	4
			0 - 492	1.5
	3x400V 50Hz	GV2ME05	493 - 821	2.5
			822 - 1314	4
			0 - 167	1.5
	3x220V 60Hz 3x230V 60Hz	GV2ME06	168 - 279	2.5
	0X2004 00112		280 - 446	4
0.22	-	GV2ME05	0 - 471	1.5
	3x380V 60Hz 3x400V 60Hz		472 - 785	2.5
	324004 00112		786 - 1257	4
	1x230V 50Hz	GV2ME07	0 - 110	1.5
			111 - 185	2.5
0.25			186 - 297	4
	3x230V 50Hz	GV2ME06	0 - 174	1.5
			175 - 290	2.5
			291 - 464	4
	3x400V 50Hz	GV2ME05	0 - 492	1.5
			493 - 821	2.5
			822 - 1314	4
	1x230V 50Hz	GV2ME08	0 - 69	1.5
0.37			70 - 116	2.5
			117 - 185	4
	3x230V 50Hz	GV2ME07	0 - 111	1.5
			112 - 185	2.5
			186 - 297	4
		GV2ME06	0 - 308	1.5
	3x400V 50Hz		309 - 513	2.5
			514 - 821	4

Motor Power (kW)	Net voltage	Protection	Max. cable length (m)	Wire gauge (mm²)
	3x220V 60Hz 3x230V 60Hz	GV2ME07	0 - 107	1.5
			108 - 178	2.5
			179 - 285	4
0.45			0 - 294	1.5
	3x380V 60Hz 3x400V 60Hz	GV2ME06	295 - 491	2.5
`			492 - 785	4
	3x230V 50Hz	GV2ME08	0 - 69	1.5
;			70 - 116	2.5
_			117 - 185	4
	3x230V 50Hz	GV2ME07	0 - 111	1.5
;			112 - 185	2.5
0.55			186 - 297	4
0.55			0 - 197	1.5
;	3x400V 50Hz	GV2ME07	198 - 328	2.5
			329 - 525	4
			0 - 308	1.5
	3x400V 50Hz	GV2ME06	309 - 513	2.5
			514 - 821	4
			0 - 44	1.5
•	1x230V 50Hz	GV2ME10	45 - 73	2.5
			74 - 117	4
_			0 - 69	1.5
0.75	3x230V 50Hz	GV2ME08	70 - 116	2.5
			117 - 185	4
_			0 - 197	1.5
3	3x400V 50Hz	GV2ME07	198 - 328	2.5
			329 - 525	4
	1x220V 60Hz 1x230V 60Hz	GV2ME14	0 - 26	1.5
			27 - 44	2.5
			45 - 71	4
0.9	3x220V 60Hz 3x230V 60Hz	GV2ME10	0 - 42	1.5
			43 - 70	2.5
			71 - 113	4
	3x380V 60Hz 3x400V 60Hz	GV2ME08	0 - 117	1.5
			118 - 196	2.5
			197 - 314	4
	3x230V 50Hz	GV2ME10	0 - 44	1.5
:			45 - 73	2.5
4.4			74 - 117	4
1.1 –	3x400V 50Hz	GV2ME08	0 - 123	1.5
3			124 - 205	2.5
			206 - 328	4
	2×220V 60H-	GV2ME14	0 - 26	1.5
	3x220V 60Hz 3x230V 60Hz		27 - 44	2.5
1.32			45 - 71	4
	0.000/.001	GV2ME08	0 - 117	1.5
	3x380V 60Hz 3x400V 60Hz		118 - 196	2.5
			197 - 314	4

Motor Power (kW)	Net voltage	Protection	Max. cable length (m)	Wire gauge (mm²)
1.5	1x230V 50Hz	GV2ME14	0 - 27	1.5
			28 - 46	2.5
			47 - 74	4
	3x230V 50Hz	GV2ME10	0 - 44	1.5
			45 - 73	2.5
			74 - 117	4
		GV2ME08	0 - 123	1.5
	3x400V 50Hz		124 - 205	2.5
			206 - 328	4
		GV2ME14	0 - 26	1.5
	3x220V 60Hz 3x230V 60Hz		27 - 44	2.5
1.8			45 - 71	4
	3x380V 60Hz 3x400V 60Hz	GV2ME10	0 - 74	1.5
			75 - 124	2.5
			125 - 199	4
2.2	3x230V 50Hz	GV2ME14	0 - 27	1.5
			28 - 46	2.5
			47 - 74	4
	3x400V 50Hz	GV2ME10	0 - 78	1.5
			79 - 130	2.5
			130 - 208	4
2.64	3x380V 60Hz 3x400V 60Hz	GV2ME14	0 - 47	1.5
			48 - 78	2.5
			79 - 125	4

In reality, if the cable lengths are longer than the ones given in the tables above, then you have to take one of the following actions:

- Double the section of the PE (earth connection)
- Increase the section of the phases AND the PE (earth connection)
- Place a earth-leak circuit breaker





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