

Broiler





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Creating Superior Feed Access with Kick-off 330° (Patented)



The Kick-off 330° feeding gives a far greater assurance for a better start as it automatically overflows all pans 330°, creating superior feed access to all chicks in the house (2.0 kg / 4.4 lbs per pan). The Kick-off 330° combined with the unique design of the pan, which presents the feed in the chicks' eye level, offers an availability of feed in the house which has never been seen before.

The combination of the slope of the overflow feed and the chicks curious behaviour will create an activation effect, which will stimulate more chicks to correct feeding behaviour (eating from one place: the pan) at an early stage, thereby enhancing uniformity. As the only system, kick-off also provides the possibility of feeding chicks regularly with many small meals, automatically. With "stimulation feeding" 0.5 kg / 1.1 lbs of feed is supplied pr. outlet.

THE KICK-OFF PRINCIPLE

The kick-off feeding system provides centrally controlled overfilling of all pans at the same time. It is controlled centrally by one single operation for each feed line (rotating the pipe), which is extremely timesaving and eliminates the need for manual work otherwise connected with providing feed on the floor/paper.

+ 30 G / 1 OZ THE FIRST WEEK!

The system stimulates the chicks' curiosity and collectively activates them to seek fresh feed. Experiments have thus shown that chick bodyweight is up to 30 g / 1 oz higher than normal after the first week when the kick-off system is used.







Easy-clean (Patented)

As the only system, easy-clean provides the possibility of bringing all pans on a feed line into cleaning position by one single operation (central rotation of the pipe). In this position, all outlets are simultaneously closed, thus ensuring that the insides of the pipes remain dry. LANDMECO's pans must not be disassembled for cleaning. Easy-clean is extremely timesaving and minimizes the manual work which is typically connected to the cleaning process.



EASY CLEAN POSITION

PATENT

LANDMECO has the patent on the solution with rotating the feed pipe relative to the feed string and thus the kick-off and easy-clean system. LANDMECO also has the patent on the 330° solution, where the specific design of the pan utilizes the momentum of the feed to create an automatic overflow on the outside of the feeding pan 330°, making the feed easy accessible and visible to all chicks from day 1.

Facts

The pan has a low edge (2 inch), which allows the day-old chicks easy access to the feed. Also, the chicks' appetite improves as the feed remains fresher, because there is only app. 1.1 kg / 2.4 lbs feed in the pan. Another benefit is that the pan can be raised from the litter after only a few days.

No feed spillage (improved edge)

No feed spillage is further ensured by means of the improved pan edge slope and the integrated partitions. The feed is deposited at the correct distance from the pan edge, so that even day-old chicks can reach the feed without having to stand in the pan. This prevents the chicks from contaminating the feed with litter and droppings.

Transparent cone (improved)

The pans are with transparent cones, making it easy to see whether the cone and pan are clean. It also makes the quantity of feed in the pan visible, thus providing better conditions for the daily management.

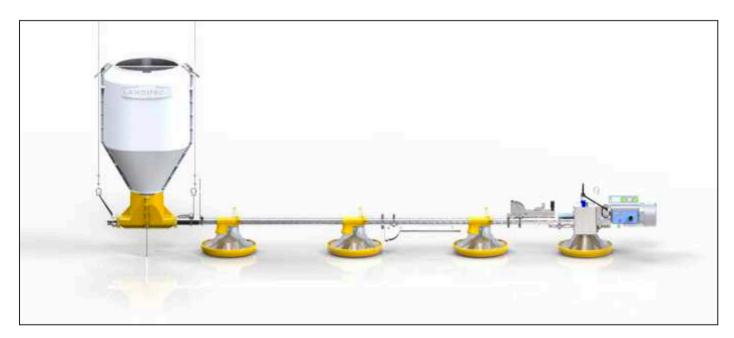
Improved hygiene & animal welfare

The Kick-off 330° pan is high polished and the number of parts and parts interfaces have been reduced, which all leads to a better hygienic performance. Also, there are no sharp edges on the Kick-off 330° pan, which improves the animal welfare.



Return on Investment (ROI)





See also the pan feeding Kick-off 330° video on www.landmeco.com



Scan to watch the kick-off feeding feature of the pan

Safe Connector



Ground-breaking Product: Safe Connector

LANDMECO has patented a product, ensuring that all the feed lines in your house are straight, that your pipes are not turning and on top of it all, that you can actually mount the pipes without any tools and without any risk of incorrect installation.

It sounds too good to be true, we know, but it is not. All these great features are gathered in one amazing product. We call it: **The Safe Connector**.

Unique Features of the Safe Connector

Ensures alligned holes in the feed line

The 1.25 mm (0.0492 inch) thick pipes have been laser cut in a unique way which ensures, that when two pipe ends are joined, they are fastened. The Safe Connector works as a fixation.

When the pipes are clicked into the connector, the pipes are fixed and cannot turn. This ensures aligned feed holes in the whole feed line.



The feed line follows the floor

As the Safe Connector permits a 1° flexibility it ensures a far greater assurance of all pans following the floor, allowing all chicks the best possible feed access at all times.

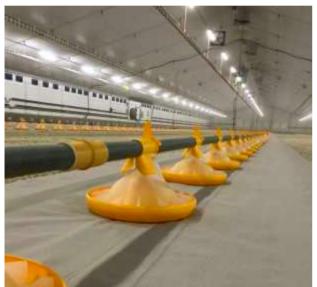


The Safe Connector can be mounted without any tools, and it has been designed so that it is NOT possible to mount it wrongly. You simply click the pipe into the connector with all arrows in the same direction.



Safe Connector





The pipe can easily be dismounted

If needed, it is very easy to dismount the pipe from the Safe Connector. You simply release the lock pins.

Very strong material

The Safe Connector has been produced in an extremely strong and durable material which is often used in the car industry when replacing steel parts with plastic parts.

High standard of hygiene

As the Safe Connector blocks all access, it helps to ensure that the material inside the pipe cannot be exposed to contamination, not even during high pressure washing of the feeding system.

3 years of development

It took LANDMECO 3 years to develop the Safe Connector. To make the ideal clever design which prevents incorrect operation by the user, to find the right material and to ensure durability toward cleaning chemicals. Safe Connector: A unique Poka-yoke* solution.

*Poka-Yoke= mistake-proofing





Encouraging Maximum Feed Consumption

The illuminator highlights the feeding pan and a concentrated area around the control pan with a broad-spectrum light. This attracts the birds to the control pan and encourages maximum feed consumption. It leads to optimum filling of all pans in the system. As much as 240° of the last two pans are illuminated at minimum 10 lux.

The product consists of a LED lamp, bracket and needed accessories to complete the installation.







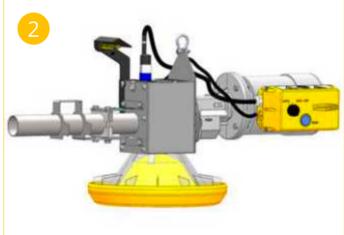


Unique Features of the Illuminator

- Functionally & visually designed to be an integrated part of the line.
- Easy to connect to the control box in new or existing installations.
- · Low power consumption.
- Very easy to clean & disinfect, with no hidden cavities or 'dead spots'.
- The Illuminator causes no restriction to the movement of birds under or around the feeding pipe.
- The power of the Illuminator is balanced in intensity, in order only to attract the birds in proximity of the control pan, causing limited eye stress due to excessive intensity.
- Comes completely ready to install with bracket, cable ties and gland.
- Wide beam angle 180 degrees due to the clear housing design.

Packages











Water is one of the most important factors determining the growth and health of broiler chickens. In Scandinavia, there has been an increased focus on litter quality and foot pad control over the last few years. LANDMECO has actively contributed to improving litter quality and solving foot pad problems by choosing nipples which keep litter dry without compromising product quality.

We attached great importance to whether the nipples could provide birds with the water they require, both as day-old

chicks and when approaching slaughter weight, without any water spillage.

All nipples can be activated 360° in any direction, giving even small day-old chicks easy access to water during the first critical days after the flock is introduced into the poultry house.

In our experience, litter quality and feed consumption can be significantly improved by choosing the right drinking system.

LANDMECO has selected its special drinking systems based on the following criteria:

- 1. Flexible water flow
- 2. Effective shut-off
- 3. No water spillage
- 4. Reliability and durability
- 5. Simple, flexible fitting
- 6. Easy cleaning
- 7. Resistance to disinfection and cleaning agents

Drinking Nipples



4022



LUBING 4077

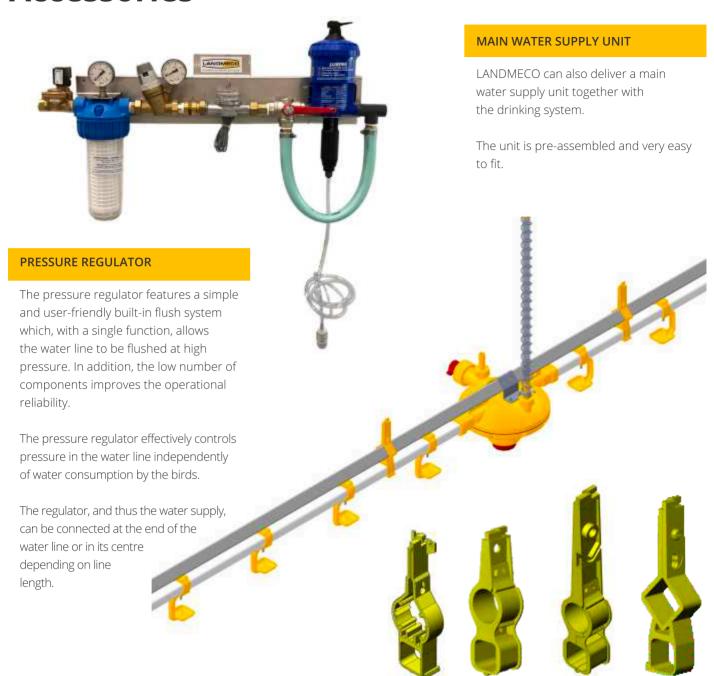


LUBING 4024-01



CORTI (TURNED MODEL) 4002H

Accessories





NIPPLE PIPES

LANDMECO's plastic nipple pipes (22x22 mm) (0.8661x0.8661 inch) into which nipples are screwed directly.

SUSPENSION AND SUPPORT PIPES

As standard, hot-galvanised square pipes ($25 \times 25 \text{ mm}$) ($0.9842 \times 0.9842 \text{ inch}$) are used to support and stabilize nipple pipes. The pipes are joined using 200 mm (7.874 inch) internal connectors which ensure reliable, rigid joints that do not conceal dirt.

Support pipes are turned so that their four sides are at a 45° angle. This ensures greatest possible pipe stability, both vertically and horizontally. Square pipes are also more easily cleaned than round ones as dirt is not simply washed to the far side of the pipe. As an alternative to square support pipes, ¾" galvanized pipes can be used.

If required, an anti-perch wire can be fitted above the support pipe.



Heating System



Calori-Air

The LANDMECO Calori-Air heating system is specially designed for use in poultry houses or other types of livestock housing in which there is much dust and/or high heating requirements. The heater ribs are therefore more widely spaced than is normal for similar heaters. Also, the fan has a total of 10 blades, ensuring that the Calori-Air is very quiet.

Ventilation Supplier

LANDMECO recommends that the final solution be designed in cooperation with the supplier of the ventilation system.

EXCEPTIONAL OUTPUT

Heating surfaces are designed on the basis of the latest heating surface technology, and thus extremely efficient in relation to element size.



EASY CLEANING

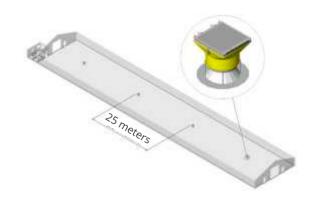
The fan unit is hinged on the heating element so it can be swung completely open. This allows easy access to the heating surface and housing for cleaning purposes. The widely spaced ribs of the heating surface also facilitate cleaning.

Installation Possibilities



TRADITIONAL HEATING

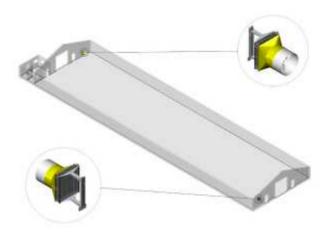
Is recommended as it provides the best possible heat distribution and thus ensures dry litter. As heaters can be raised and lowered by means of a winch, it provides exceptional air circulation. This Calori-Air is available with two different distributor plates respectively in galvanized steel or fiberglass.



2

GABLE HEATING

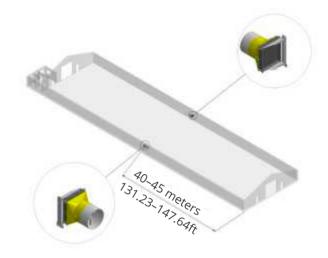
Gable heating with two air heaters is suitable for use in short houses up to 40-50 metres. (131.23 – 164.04 ft). Pipes are located on side walls. LANDMECO recommends that this solution is supplemented with air circulation fans, to ensure a suitable climate and dry litter throughout the entire unit.



BALANCE HEATING

Balance heating with two air heaters is suitable for use in housing units of up to 80-90 metres (262.47 – 2195.28 ft). Cleaning is easy as the heaters are mounted on swivel arms. This system provides good air circulation.

Balance heating is also available with a 201 cm (6.5945 ft) wall bracket (see balance heating db, 4).

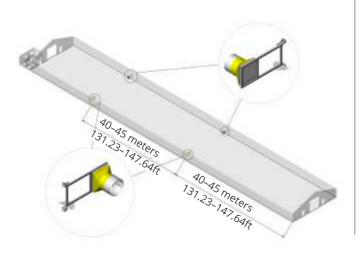


4

BALANCE HEATING, DB

The conditions described under balance heating (3) also apply here. In this system, however, two air heaters are installed on each side wall because of greater housing unit length. This solution is typically used in long housing units of up to 100-110 (328.08-360.89ft) in length.

Balance, db heating is also available with a 84 cm (2.7559 ft) wall bracket (see balance heating, 3).

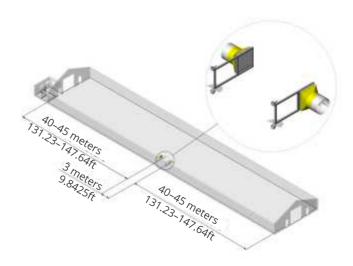


SIN

SINGLE-SIDED HEATING

In this system, air heaters are only installed on one of the side walls. The system is suitable for housing units of up to 80-90 meters (262.47-295.28 ft).

The main advantage of this solution is that the boiler room can be positioned in close proximity to both air heaters, thus eliminating the need for extensive piping and making the system both simpler and cheaper.







Reliability through experience

The broad range of equipment for all types of hoisting operations has been compiled and developed based on many years' experiences. LANDMECO can therefore find an optimal solution for even the most complex constructions and systems. Furthermore, LANDMECO is a total supplier of all necessary equipment.

This brochure provides examples of hoist systems available from LANDMECO.



Factors to be considered when choosing and dimensioning a system:

- 1. The components to be raised/lowered
- 2. The frequency with which they are to be raised/lowered
- 3. Component weight
- 4. Building design
- 5. Clearance requirements
- 6. Other installations
- 7. Expected service life
- 8. The environment to be endured
- 9. Other factors that burden the hoist system extraordinarily
- 10. Reliability

Hoisting System Control

LANDMECO has developed central controls for hoisting feeding and drinking systems. After the house has been stocked with chickens, the individual hoisting systems must first be adjusted manually. After that, they can be controlled simultaneously with a single button.

The drinking system is lifted by the drum directly, while the feeding system usually is fitted with gearing and is lifted at half speed. Using the central controls, for eve-

ry 1 cm (0.3937 inch) the drinking system is raised, for example, the feeding system will thus only be raised $\frac{1}{2}$ cm. (0.1968 inch) .

Example:

For a housing unit with four feeding lines and five drinking lines, the controls will have nine buttons: one for each hoist motor. These buttons should be used when manually adjusting the height of each individual system.

In addition, there will be the button which activates the central control of all nine hoist motors, allowing all feeding/drinking lines to be raised/lowered simultaneously.



Hoist System Accessories

Three types of suspension cable

The cable on which the feeding or drinking system is suspended can be steel wire, polyester rope or braided cord.

The type chosen should always be the one which best meets the requirements in the particular situation.

Stainless or galvanized wire rope

Wire rope is available in stainless or galvanized versions.

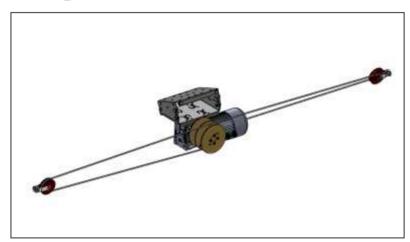
As there is a large difference in price between the two types, the choice of material should be based on expected service life and the environment in which the system is to be used.

Control cabinets

Control cabinets containing all the equipment necessary for hoist operation are available for all LANDMECO hoist systems.

This allows individual hoists to be activated separately, or several or all hoists to be activated simultaneously.

Single Hoist

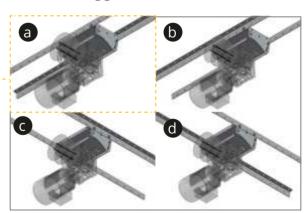


LANDMECO offers special fittings that can be adapted for all kinds of rafters and ceilings, thus ensuring that installation costs are kept at a minimum.

Large flexibility is especially shown by LANDMECO's bracket that can be adjusted in relation to the ceiling slope (see Figure a, b, c and d).

Single hoists can be installed either directly or with gearing if greater lifting capacity and safety are required. Various types of single hoist are available - electrically driven, with manual worm gear, and hand winched with cog gear and brake.











Central Hoist



The powerful LANDMECO central hoist is recommended for houses with flat ceilings or houses in which several lines must be lifted simultaneously.

This system ensures exceptionally stable operation and electrical wiring costs are minimized. If gearing is used, lifting speed and the load exerted on the hoisting gear are reduced, thus ensuring the stability and safety of hoisting operations in large houses.

Ideally, all hoist types should be located in the center of the house.

Smart Hanger



Features of the Smart Hanger:

- · There is no wear on the feed line, because it is all plastic
- There is very low friction, when rotating the feed line, because of the built-in design of needle bearing
- The anti-sit/stabilizing wire can move freely when rotating the pipe
- It has built-in height adjustment
- It ensures maximum clearence (no brackets on the polyester line)
- It holds 100+ kilos (220+ pounds)
- It is clearly marked which way to mount the Smart Hanger (big arrows follow the feed direction)
- It is clearly marked how to thread the polyester line (line follows the small arrows)

The Smart Hanger is mounted with the same tool as used for the feed pan 160°.





Augers



Augers

Wide Range

LANDMECO offers a very wide auger range. The augers are built from standard components that can be combined and used for various auger sizes.

This makes it very simple to design precisely the right auger for specific tasks.



GEARED MOTOR

The geared motor is an integrated unit with closed oil bath gear. It requires a minimum of maintenance and ensures a long lifetime.

Flex Augers

Inlet and Outlet

Both the auger inlet and the outlet beside the geared motor are made of all welded galvanised steel. Both can be mounted on the flex auger in precisely the direction required for the specific task. At the inlet, the auger is guided by a powerful ball bearing. Depending on the material to be transported, a limiting shaft can be built into the auger to prevent overloading. Both inlet and outlet are equipped with Ø 440 mm (17.3228 inches) connection, ensuring easy connection to other equipment. Additional inlets and outlets can be fitted as required.



Installing Flex Augers

As standard, all casings, both straight and curved, are supplied with a connector attached to one end. If these fitted connectors are not suitable, loose connectors are also available. Pipes are joined using stainless clamps.



LANDMECO flex augers are the most flexible solution for transporting loose material whether it be feed, grain or wood pellets. The auger pipe is made of white, durable plastic, which provides the pipe with a smooth, long-lasting inner surface. Least possible friction is thus ensured.

The hardened spiral of flat spring steel is designed to ensure least possible damage to the material during transport while at the same time maximizing auger capacity. The pipe

and inlet are completely sealed, thus ensuring that the material is effectively protected against the surrounding environment during transport. Augers can therefore be installed outdoors, either suspended above ground or buried in underground channels, without problems.

Augers

Capacity

It is highly variable, and depends on the material to be transported, auger pitch and choice of spiral.



Auger casing

75 mm (2.95 inch)

Capacity 1100 - 1500 kg (2425-3306 lb) / hr

Max. 8mm (0.31 inch) pellet diameter

Auger casing

90 mm (3.54 inch)

Capacity 2000 - 2400 kg (4409-5291 lb) / hr

Max. 10mm (0.39 inch) pellet diameter

Auger casing

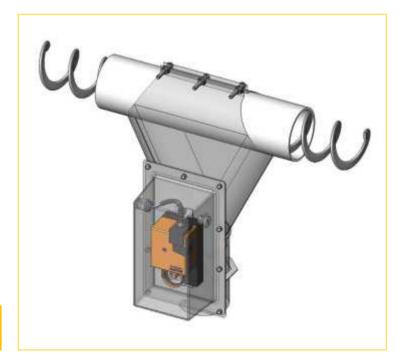
110 mm (4.33 inch)

Capacity
Max. 4200 kg
(9240 lb) / hr

Max. 10mm (0.39 inch) pellet diameter

Accessories

LANDMECO flex auger design allows the installation of extremely long augers, and in extreme cases these can be connected to additional augers for continued transport.



ELECTRICAL VALVES

LANDMECO also offers outlets with electrical valves for destination feeding.



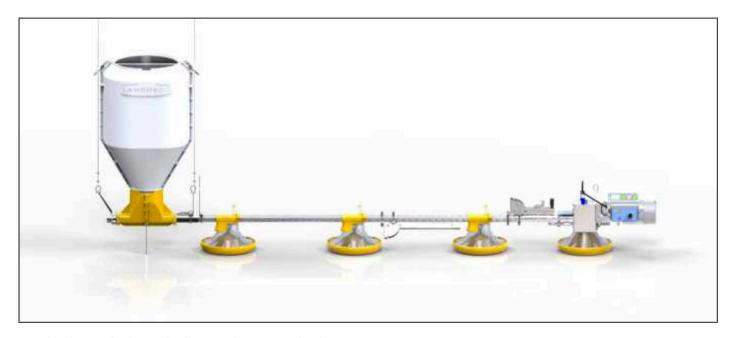


The wide range of outlets for **LANDME**CO flex augers is designed to meet all possible requirements (see page 33).

Technical Specifications

Technical Specifications

PAN FEEDING KICK-OFF 330°		
DESCRIPTION		
Gearmotor	3 phase 0.55 KW (230V/400V 50Hz), 1400/300 rpm	
	3 phase 0.44-0.66 kW (280V/480V 60Hz), 1600/345 rpm	
	1 phase 0.55 kW (230V 50Hz) 1400/300 rpm	
	1 phase 0.48 kW (240V 60Hz) 1600/345 rpm CSA	
Flex spiral	D 35.4x19x45 mm, 4x8 mm / D 1.4x0.7x1.77in, 0.16x0.31in special steel	
Feed quantity	Appr. 6.0 kg/min & 14 m/min / 13.2 pounds/min & 46 ft/minute	
Feed pipe	D 45x1.25 mm / 1.77x0.05in galvanized steel	
Pipe length	5.25 m / 17.2 ft with 7 pans (2.5 ft between pans)	
Feed hopper	800x520x520 mm / 31.5x20.7x20.7in, 140 litres / 42 gallons & 60° slope	
Pan	D 340 mm / 13.4 in , Circumference 1060 mm / 41.3 in, edge height 52 mm / 2 in	
Cone	Transparent plastic with 12 paddles	



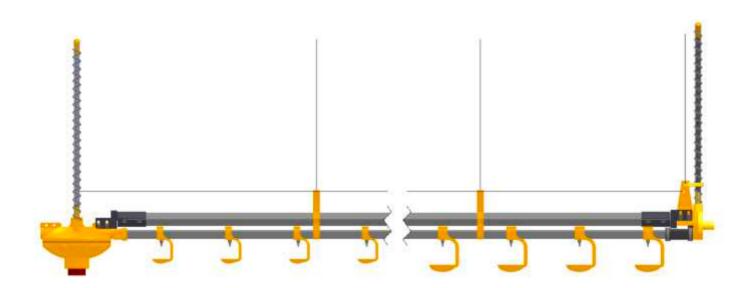
See also the pan feeding Kick-off 330° video on www.landmeco.com

ILLUMINATOR		
DESCRIPTION		
Voltage	90-277 AC, 50/60Hz	
Power	2W / 200 lumens	
Protection Level	IP67 / NEMA 6	
Life time	Typical 50,000 hours, 1 year warranty	
CRI Index	> 90	
Cable length	1 meter (3.2808 ft.)	
Operating temperature	-10°C to +60°C (14 °F to 140 °F)	

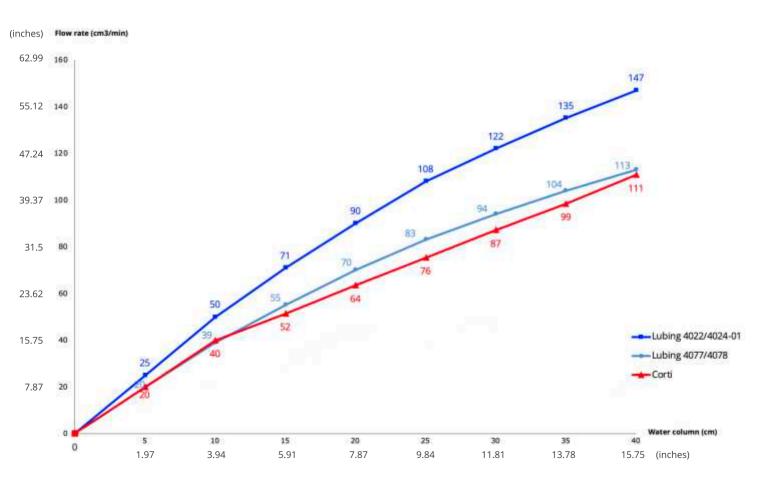


LIGHT >>> CONTROL PAN >>> MAX FEED CONSUMPTION >>> OPTIMUM FILLING OF ALL PANS

DRINKING SYSTEM



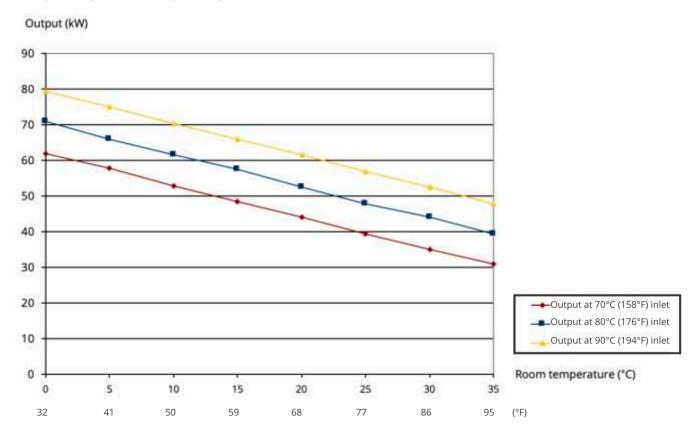
Flow Chart (Trigger Pins Lifted 7 mm (0.2756 inch))



HEATING SYSTEM (MODEL 91-900)		
DESCRIPTION		
Heating element thickness	91 mm (3.5827 inches)	
Heating element material	Copper tubes and seawater resistant aluminum	
Weight excl. water	74 kg (163.1421 lb)	
Fan motor	0,55 kW, 900 rpm clixon incl. Other motor specifications are available on request!	
Fan output	7100 m³/h (250734.13 ft3)	
HxWxD	880x760x680 mm (34.6457x29.9213x26.7717 inches)	
HxWxD with extension	880x760x920 mm (34.6457x29.9213x36.2205 inches)	
Water back pressure	0.16 bar (2.3206 psi)	
Connection	5/4" BSP	
Number of circuits	7	

Output Curve for Model 91-900 with a Flow Rate of 54 l/min. Vertical installed*

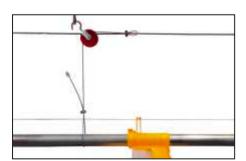
*The outputs are for installation possibility 2-5.



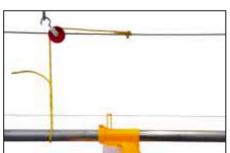
Technical Specifications

HOIST SYSTEMS		
DESCRIPTION		
Worm-geared motor for single hoist	0.55 kW, 1400/17.5 rpm	
	0.55 kW, 1400/14.0 rpm	
	1.10 kW, 1400/14.0 rpm	
Worm-geared motor for central hoist	1.5 kW, 1400/17.5 rpm	
Manual hoist	550 kg (1199.31 lbs), 750 kg (1653.47 lbs), 1500 kg (3306.93 lbs). All with brake.	
Worm gearing	Manual with double drum	
	Pulley with 50 mm (1.9685 inch) dia. nylon sheave and two eyes	
Pulleys	Pulley with 60 mm (2.3622 inch) dia. nylon sheave and two eyes	
	Pulley with 90 (3.5433 inch) mm dia. plastic sheave and shackle	
Polyester rope	4 mm (0.1575 inch)	
Braided cord	6 mm (0.2362 inch)	
	Galvanised wire ropes: 3, 4 and 5 mm (0.1181-0.1575-0.1968 inch)	
Mira rana	ACC 7 x 19, breaking strength: 180 kg (396.83 lb) /mm²	
Wire rope	Stainless wire ropes: 3, 4 or 5 mm (0.1181-0.1575-0.1968 inch)	
	ACC 7 x 19, breaking strength: 160 kg (352.74 lb) /mm²	
Controls	Controls are available for specific tasks	

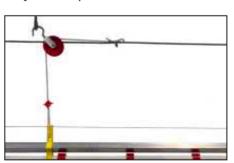
Steel Wire



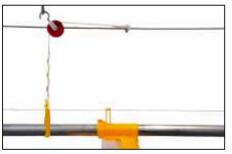
Braided Cord



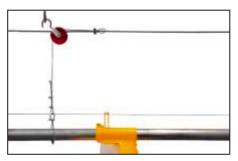
Polyester Rope



Polyester Rope with Smart Hanger



Steel wire with Suspension bracket



AUGERS		
DESCRIPTION		
Flex spiral, 75 mm (2.95 inch)	Diam. 60x40x36 mm, (2.36x1.57x1.42 inch) 4.3x11.7 mm (0.17x0.46 inch) special steel	
Flex spiral, 90 mm (3.54 inch)	Diam. 75x53x47 mm, (2.9x2.08x1.85 inch) 4.3x14.0 mm (0.17x0.55 inch) special steel	
Flex spiral, 110 mm (4.33 inch)	Diam. 86x60x58 mm, (3.38x2.36x2.28 inch) 4.3x14.0 mm (0.17x0.55 inch) special steel	
Auger pipe, 75 mm (2.95 inch)	Wall thickness 3.6 mm (0.14 inch)	
Auger pipe, 90 mm (3.54 inch)	Wall thickness 4.0 mm (0.158 inch)	
Auger pipe, 110 mm (4.33 inch)	Wall thickness 5,6 mm (0.22 inch)	
Elbow, 75 mm (2.95 inch)	Wall thickness 3.6 mm, (0.14 inch) 60°	
Elbow, 90 mm (3.54 inch)	Wall thickness 4.3 mm, (0.17 inch) 60°	
Elbow, 110 mm (4.33 inch)	Wall thickness 5.3 mm, (0.2087 inch) 60°	
Geared motor	1.1 kW (3x380V), 1400/300 rpm	
(1) Outlet, plastic	75/90 mm. (2.95/3.54 inch)	
(2) Reduction adapter	OK 160-75 mm, (6.29-2.95 inch) single/double two-way.	
(3) Attachable outlet	OK 160 mm. (6.29 inch)	
(4) Attachable outlet	74 mm, (2.91 inch) with PG	















About Landmeco

LANDMECO was founded in 1932 in Ølgod and has grown into an international manufacturer of equipment for poultry.

In 1970 the distribution of poultry equipment started, and it soon included everything from drinking systems and feeding systems to laying systems and liquid vitamins etc. In 1977 the company made a generational change, so that Søren Andersen became the new owner and manager, and in 1979 the company received the name it has today, namely LANDMECO.

During the 1980s LANDMECO began to manufacture poultry equipment. Initially nests were manufactured, and as the chicken farm's own production was with hens on the floor, this gave good opportunities to experiment with different kinds of equipment in order to find solutions that worked better than the systems that were already on the market. Afterwards LANDMECO started to look into manufacturing feeding system, including both pans and troughs. The systems were both for broilers, breeders and layers.

In 1996 LANDMECOs aviary system Harmony was launched. The system is still sold today, but in newly developed and modified versions.

In 1999 LANDMECO launched it's well-known patented pan feeding system with kick-off and easy-clean. The system is still sold today, but in a new and improved version.

The son Karsten Andersen became a bigger and bigger part of LANDMECO from the late 1980s, particularly in the development of LANDMECOs own products. In 2007 Søren Andersen died and directorship was taken over by Karsten Andersen.

In addition to the mentioned products LANDMECO manufactures many other components within the poultry equipment today, and the company has evolved to become Scandinavia's largest producer within poultry equipment, with exports to many parts of the world.

In 2018, LANDMECO was taken over by SKIOLD A/S, a leading Danish company in the agricultural sector, with subsidiaries in Europe, CIS, Asia and Oceania.



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