



Because Grain Matters...



# Product Catalogue

Complete Solutions for Grain Drying and Storage

# About Inter-Silo



## History

For many years, the people behind Inter-Silo have installed and maintained grain storage facilities, firstly in Denmark, and later in several other European countries. During this period, the popularity of drying silos has grown rapidly, and today more than 2000 grain silos are in operation just in Denmark.

With references from facilities of all sizes around Europe, Inter-Silo has the widest possible experience and has seen the abundant benefits of modern agriculture all over.

Since 2014, Inter-Silo is the official reseller in Lithuania for Dan-Corn A/S. Dan-Corn A/S has more than 55 years of experience and is the leading grain silo company in Denmark.

Inter-Silo is ready to provide turnkey solutions for Lithuanian farmers - and will assist the farmer during every single step of the project, such as funding applications, building permits, concrete works, installation, electrical installation, testing, education and service.

*The products from Inter-Silo makes farmer's daily life easier both during and after the harvest. He can bring his grain directly to the storage and dry his crops inside it - almost from the first moment.*



# Interesting facts



Inter-Silo installed 116 grain silos all over Europe in 2013. Their overall capacity is 75-80 000 tons.

In 2012, the first tower dryer was built in Denmark. It was constructed by Inter-Silo.

About 95 % of the silos that Inter-Silo install have a stirring-system, so the farmer can dry his grain inside.

An average construction time in 2013 was one week for 1000 tons of capacity.

In last 12 years, company's partner Dan-Corn A/S sold approximately 2 500 grain silos.



## Owner's statement

*"After three busy years, during which Inter-Silo has grown rapidly, it has been a natural step to open our sales department in Lithuania. Until now Inter-Silo directed all focus onto silo installation in several European countries. However, with the significant agreement of cooperation with Dan-Corn A/S, which we signed at the end of 2013, we are now looking forward to apply our extensive expertise by serving the Lithuanian market directly.*

*I was surprised to hear that some Lithuanian farmers do not believe there is a possibility to dry grain directly inside the silo, where they can also store it. Together with my team in Lithuania I am very much looking forward to meeting them and showing them something different."*



Lars Young Mogensen  
Owner

## Dan-Corn A/S statement

*"Through the last 3 years we have cooperated with Inter-Silo with regards to the assembly of silos and conveyor systems. The assembly assignments have covered both agricultural and industrial silos, i.e. feed companies. During the peak season of 2013, we employed 10-12 assembly teams from Inter-Silo.*

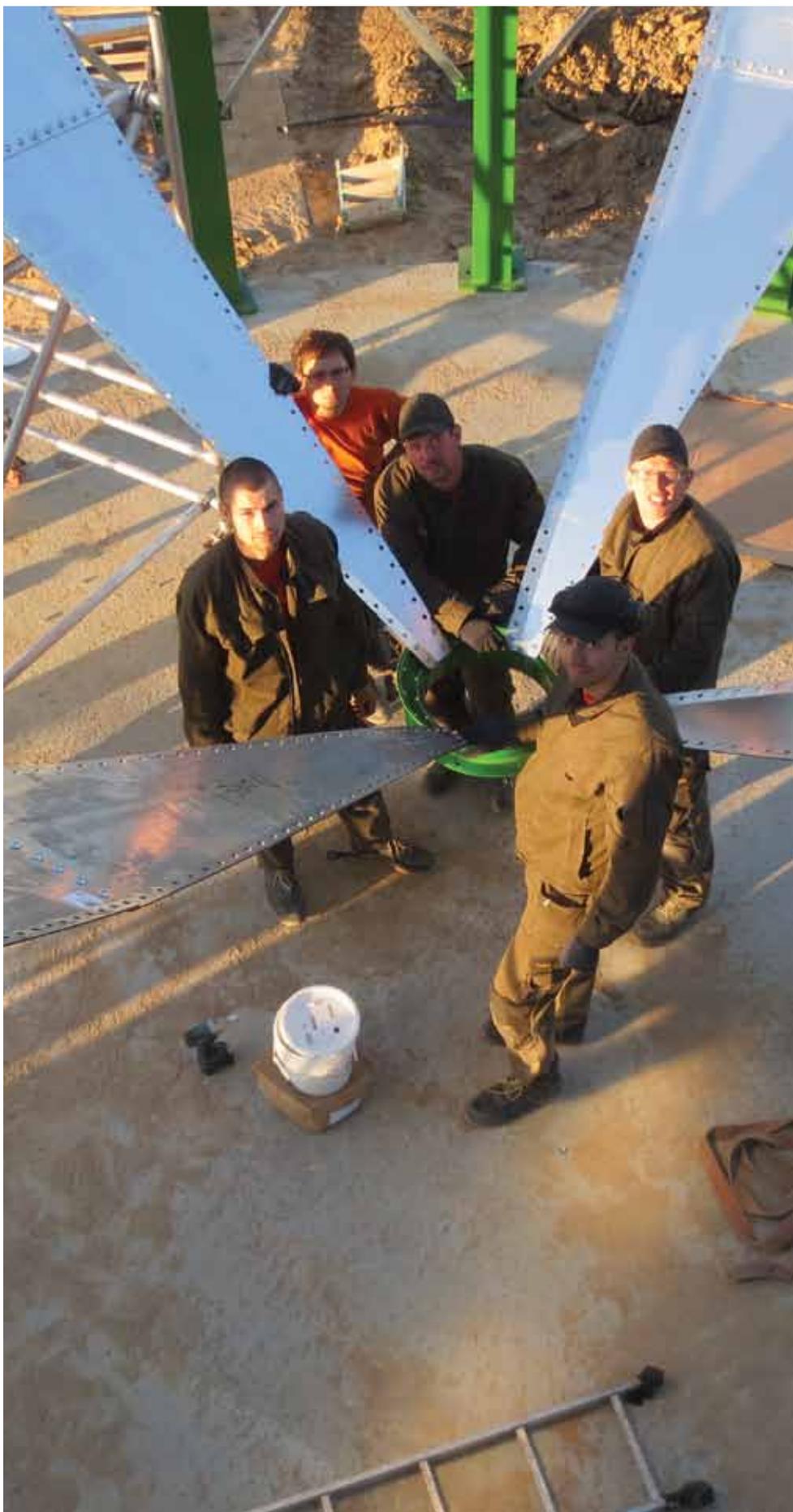
*We have made an agreement with Inter-Silo, leading to the fact that we mainly use Inter-Silo for silo assembly. The consequence is that we will assemble silos in 2014 by means of 12-15 assembly teams from Inter-Silo. Our hopes to this cooperation are high, because Inter-Silo has always shown professionalism and a high level of service and quality."*



Jens Munk Jensen  
Managing Director  
Dan-Corn A/S



Anton Jemanov  
Owner/Director



# Steel Grain Bins



- A quality bin from Inter-Silo
- Bin diameter: 4.6 m – 47.5 m
- Height of the bin wall: 4.5 m – 26.8 m
- Capacity from 51 t to 37 500 t of wheat
- External sidewall stiffeners for maximum strength
- Grain storage at a low price
- Well - tested galvanised steel construction
- Minimum effort required for loading and unloading
- Optimal use of the developed space
- Spiral staircase and roof ladder
- Regulation safety device fitted
- Specially designed snow reinforcement of roof for Lithuanian climate

## Standard equipment for the Inter-Silo grain bins:

- Wide inlet at the silo top, which can be closed after filling
- Roof ladder with railings and non-skid steps
- Anchor bolts
- Flexible sealant between bin and foundation
- Large external access door fitted with safety device
- Large external ladder with safety cage
- Internal inspection ladder
- Regulation safety equipment fitted
- Large roof manhole with safety railing
- Efficient and durable unloading equipment with 35 to 150 t/h capacity
- Industrial galvanised bolts



# Steel Grain Bins



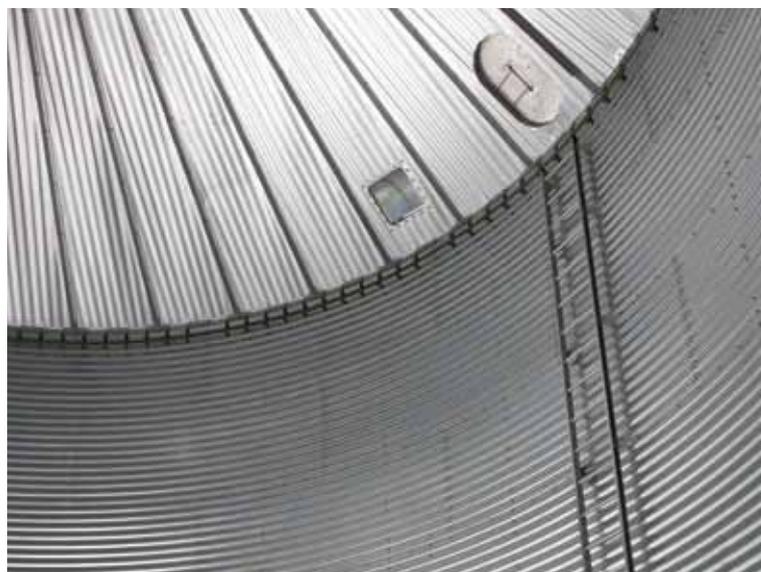
Our steel silos with outside stiffeners are extremely strong. With the snow-reinforcement kits under the lightweight roof, the silo is not just a standard product - but carefully modified to fit perfectly to the Lithuanian climate. Catwalks and conveyor systems can be installed on top, without need for additional stiffening.



Aeration equipment including fans, roof vents, loading and unloading equipment, external level sensors, equipment for temperature monitoring as well as bin unloading are available options.

To get the best possible aeration, a fully perforated floor can be supplied. The floors are available for either grain or rapeseed. The rapeseed floor can also be used for aerating grain.

To control the storage stability of the grain, temperature monitoring devices are available. The temperature should be measured in different locations and different heights in the bin.



# Steel Grain Bins

Our product portfolio includes bins of all sizes to meet all needs. We can also provide bins with larger capacities than shown below. Volume weight 0.76 t/m<sup>3</sup>. With max. 6% compression in higher grain layers.

## Most popular:

Diameter (m)	7.32	8.23	9.14	10.06	10.97	12.80	14.60
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### Eaves height 7.85 m

Type	2407	2707	3007	3307	3607	4207	4807
Total height (m)	10.05	10.29	10.59	10.90	11.23	11.76	12.29
Max. Contents (t)	283	362	451	551	663	917	1220
With aeration (t)	272	348	434	531	639	884	1177
With stirring (t)	230	291	359	435	518	705	917

### Eaves height 8.97 m

Type	2408	2708	3008	3308	3608	4208	4808
Total height (m)	11.17	11.41	11.71	12.02	12.35	12.88	13.41
Max. Contents (t)	320	410	510	622	745	1033	1369
With aeration (t)	309	396	493	602	721	1000	1326
With stirring (t)	266	337	416	504	601	818	1064



# Stirring System



## Inter-Silo drying equipment for silos

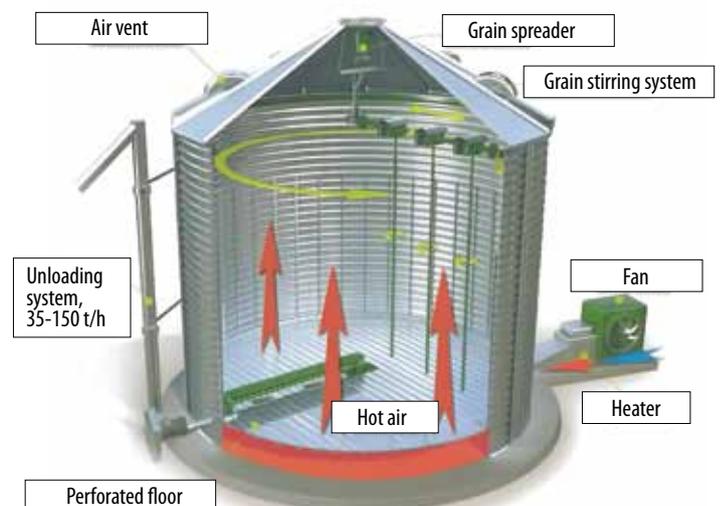
- Homogeneous drying
- Large capacity
- Simple operation
- Capable of drying smaller batches
- Even distribution
- Minimal maintenance
- Solid construction
- Well-proven and patented equipment
- Easy construction
- Can be made to fit individual needs
- Thorough mixing of different grains
- Minimum operational effort required

## Stirring System

With the Inter-Silo stirring system you can easily store and dry moist grain in up to 8 m grain depth in our outdoor storage bins.

The drying process must be activated as soon as an even grain layer (0.5-1 m) is in the bin.

Warm air is introduced through the fully perforated floor. The lowest grain layer is dried during constant stirring via the horizontal cross-tube mounted augers. Uniform drying of the grain is achieved by the action of the vertical augers stirring back and forth along the horizontal cross-tube.



*A grain silo with stirring system*



# Stirring System



## Fan and Heating

The fan must be powerful enough to push the air through the grain layer. All heating sources normally used for drying grain in flat storage can be used. This can be oil, gas, hot water etc.

## Grain Spreader

In order to ensure an efficient and even distribution of the grain in the bin, a grain spreader is mounted directly below the inlet at the top of the bin. The grain spreader can be adjusted to a bin of every diameter in order to spread the grain evenly and homogeneously.

## Stirring System

The system has a horizontal hanging cross tube with 2-3 down augers, which ensure complete stirring and mixing of grain in the bin. Warm air is supplied while the bin is being stirred, thereby achieving a completely uniform drying of the grain.

The airflow through the grain is increased by up to 33% because of the stirring.

When the grain is stirred, "wet" spots in the bin are avoided. It is also possible to make a perfect mixture of e.g. barley and wheat in the bin. Extra down augers for increased capacity are easily and quickly mounted.

The stirring system has an absolute minimum of maintenance because of the simple construction. The system is well-known for its reliability and ability to stir the complete bin. The complete stirring is obtained through the system running in a flower pattern and not running in the same track. Everything is CE-approved and preassembled and tested at Dan-Corn.



# Unloading System



- Flexible construction
- For bins with a diameter from 4.6 to 32.0 m
- Available in 6", 8", 10" and 12" augers
- Capacities from 35 to 150 t/h
- Value for money
- Simple, strong construction
- Reliable
- Long durability
- Minimal maintenance
- Patented scraping system

The Inter-Silo unloading system for round, steel bins consists of an unloading auger with a drive unit, a centre sump and a number of intermediate sumps operated by an external handle.

## The drive unit is available in 3 different models

- (1) a horizontal drive unit with an extension facility.
- (2) a 25° incline drive unit.
- (3) a vertical drive unit to enable vertical unloading directly onto a truck or other transport system.

In addition to the unloading auger, a sweep auger can be mounted which enables the bin to self-empty by nearly 100%. The sweep auger can be equipped with a separate motor or driven by the unloading auger.

## Emptying the bin

- (1) The unloading auger is activated, the centre sump is opened with the remote control. The centre sump leaves a cone of grain in the bin.
- (2) The intermediate sumps are opened with the remote control and you can then open the silo door, which give possibility to visually inspect the rest of the unloading process.
- (3) The sweep auger is activated. After only one rotation, the bin is almost 100% empty. A silo with the sweeper running should never be entered.

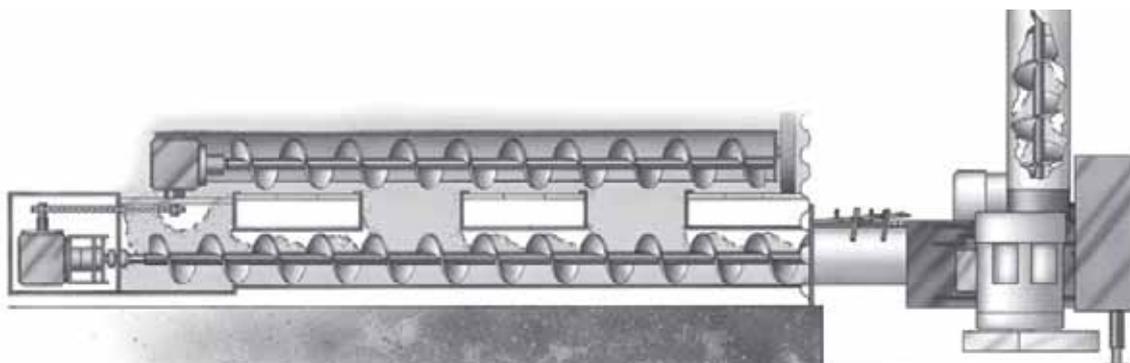


# Unloading System



The unloading systems are available in 2 versions. (1) The Sweepway version where the sweep auger is permanently placed in the bin and is being driven by the unloading auger through an angle gear. The flighting of the sweep auger and the drive wheel are geared 1:5 in relation to each other. This means that the auger turns five times to everyone turn of the wheel. With this lower speed, wheel wear and tear is reduced and wheel and floor life is prolonged.

(2) The standard version with a movable sweep auger that can be used in different bins with the same diameter.



# Painted Steel Grain Bins



Inter-Silo grain bins are also available with a painted surface. The hot dip galvanized silo sheets are degreased and then painted with a durable powder coating.

You may choose between 1688 different RAL colours – this means that we can always adapt the silo project to your specific requirements.



*Silo installation with side sheets in two different colours and a galvanised roof.*



# Standard Model Hopper Bins

- Designed and manufactured in the USA
- Bin diameter from 4.57 to 6.40 m
- Bin capacities from 59 to 214.5 tons of wheat
- Volume from 78 to 282 m<sup>3</sup>
- 45° cone shaped hopper
- Strong Roller-Gate outlet slide
- Galvanised legs bolted to two silo rings
- External ladder with safety cage
- Roof ladder to the top of the silo
- 32° silo roof with inspection hatch in the roofsheet
- With anchor bolts for easy attachment to the foundation

A standard hopper bin from Inter-Silo is an excellent hopper silo for Inter-Silo mobile dryer, delivery bin and self emptying storage bin. The hopper bin is made of galvanized sheets in order to extend its lifetime. The hopper bin is delivered with a top ring on which an industrial lid for e.g. conveyor system or catwalk can be mounted. With its 78 cm the rack-and-pinion steered Roller-Gate outlet slide on the hopper bin ensures sufficient space for mounting conveyor system.



## Accessories:

Standard roof vents on the roof, industrial lid as well as full level sensors.

Model	S-1503	S-1803	S-2103
Eaves height (m)	6.31	6.76	7.25
Total height (m)	7.60	8.41	9.15
Max. content (m <sup>3</sup> )	78.20	118.40	169.00
Max. content (t)	59.50	90.00	128.40

Model	S-1504	S-1804	S-2104
Eaves height (m)	7.40	7.88	8.36
Total height (m)	8.69	9.53	10.26
Max. content (m <sup>3</sup> )	97.50	146.20	206.70
Max. content (t)	74.10	111.10	157.10

Model	S-1505	S-1805	S-2105
Eaves height (m)	8.51	8.99	9.47
Total height (m)	9.80	10.64	11.38
Max. content (m <sup>3</sup> )	116.70	173.90	244.50
Max. content (t)	88.70	132.20	185.80

Model	S-1506	S-1806	S-2106
Eaves height (m)	9.63	10.11	10.59
Total height (m)	10.92	11.76	12.49
Max. content (m <sup>3</sup> )	136.00	201.60	282.20
Max. content (t)	103.30	153.20	214.50

*Detailed concrete instruction for the foundation and an assembly instruction is enclosed. The capacities are based on wheat with a volume weight of 0,760 t/m<sup>3</sup>.*

# Chain Elevator – Belt Conveyor



## T 20 and T 40 chain conveyor

A modular system based on standard elements that will, when correctly combined, fit any transportation arrangement. They are known for high capacity with small outer dimensions, quick and easy assembly, with an efficient use of the transportation length.



*Chain elevator with a capacity of 20 t/h and 40 t/h*

Both types work efficiently in all positions and have, compared to their capacity, low power consumption. The chain elevators can combine vertical and horizontal transportation by using side auger in troughs or by using 45° or 90° bends. Side augers in troughs are supplied with 135 mm dia. augers in lengths ranging from 0.50 to 2.00 m.

## T 19V belt conveyor

25 - 50 t/h with a 152 mm belt width

**T 19V** belt conveyor is a module system based on standard elements that will, when correctly combined, suit any transportation arrangement. The belt conveyor transports grain, seed, pellets, granulated material etc. in a U-formed trough.

**T 19V** belt conveyors are perfect for horizontal and inclined conveying (max. 6°) and the material can be conveyed either towards the drive station (one-way conveying) or both forward and backwards (two-way conveying).

**T 19V** can also be hung on a rail system, at which a continuous discharge in the direction of the running rail will be obtained to both sides from the intake.



# Chain Conveyors



- Very flexible conveying system
- Galvanised corrosion resistant finish
- Value for money
- Perfect for filling flat stores and outside bins
- Superior quality

The Inter-Silo chain conveyors are available with capacities from 40 to 600 tons of grain per hour. The conveyors are delivered as a modular system to the required length.

The Inter-Silo chain conveyors are perfect for both horizontal and inclined conveying (up to 45°) of grain, peas, canola, pellets, powder, feed mix etc.

## The Inter-Silo chain conveyor includes:

- Drive unit with chain drive or gear motor
- Modular construction
- Bend sections
- Strong transportation chain
- Manual or remote intermediate outlets

**KTF/KTIF conveyors** – Fully galvanised conveyor for horizontal or slightly inclined conveying. For one-way or two-way conveying. Manual or remote intermediate outlets are options on the conveyor.

**KTA/KTIA conveyors** – Fully galvanised chain conveyors suited for up to 45° inclined conveying. Because of the simple construction, this conveyor is especially suited for loading outside bins.

**KTG/KTIG conveyors** – Galvanised conveyor with side inlets for concrete or steel pits. When using bend sections (15°, 30° or 45°) the concrete work is simplified.

### Capacities t/h

Conveyor type	40	60	80	100	120
Volume m <sup>3</sup>	56	80	121	147	173
Capacity in t/h with a density of:					
800 kg/m <sup>3</sup>	45	64	96	117	138
700 kg/m <sup>3</sup>	39	56	84	102	121
600 kg/m <sup>3</sup>	34	48	72	87	103

# Bucket Elevator



- Galvanised corrosion resistant finish
- Easy assembly
- Long life
- Wide range of elevator heights
- Capacities from 20 to 600 t/h
- Low operational costs
- Superior quality

The Inter-Silo bucket elevator is perfect for vertical transportation of grain, peas, canola / rapeseed, pellets, powder, mixed feed etc. They are characterized by long durability and reliability and by a low power consumption compared to the output.

The Inter-Silo bucket elevator comes in many sizes with capacities up to 600 t/h. Due to the solid construction they are self-supporting.

The elevator is very solid and strong and can be placed inside as well as outside.

The Inter-Silo bucket elevator is delivered with a shaft geared motor unit. Our bucket elevators are available in 25 cm increments from 4 m.

For the Inter-Silo bucket elevator, a service platform at the top of the elevator with ladder and safety cage is a perfect option for inspection and maintenance.

## Capacities of type SEI 35/14 elevator

Elevator type	20	40	60
Volume m <sup>3</sup> /h	27	54	81
Capacity in tons at 750 kg/m <sup>3</sup>	20	40	60

## Capacities of type SEI 50/18 elevator

Elevator type	60	80	100
Volume m <sup>3</sup> /h	80	107	133
Capacity in tons at 750 kg/m <sup>3</sup>	60	80	100

## Capacities of type SEI 50/23 elevator

Elevator type	100	120	150
Volume m <sup>3</sup> /h	133	160	200
Capacity in tons at 750 kg/m <sup>3</sup>	100	120	150



# Catwalk and platform



# Control Panels for Silo Installations

An Inter-Silo silo installation can include a control panel adapted to your specific wishes and requirements. Our control panels are available for all project sizes from one single silo to large industrial installations with conveyor systems and mobile dryers.

All control panels are tested before delivery in order to make sure that everything works perfectly. All control panels are manufactured according to the EU Standards and Lithuanian legislation.

## Inter-Silo control panels

- Standard control panel for simple installations
- PLC / PC solutions for all silo installations with several silos and conveyor system Silo installation with a shed for control panel, distribution board and enough space for a table for moisture sensor etc.



## Standard control panel for drying silo

Contains starters for fan, grain spreader, stirring system, unloading system and the option to build in a starter for 2 external motors. Including time management of the stirring system and unloading system and the option to control the heating source.

## Display with an overview

Touch screen for control panels for Inter-Silo silo installations is available in many sizes adapted to your specific requirements. The large screen gives you a perfect overview of all operations of the silo installation.



## PLC / PC control panel for all sizes of silo installations with more silos and conveyor system

Advanced control panel with touch screen from which the whole installation can be controlled and observed.

Including starters for all motors of the installation.

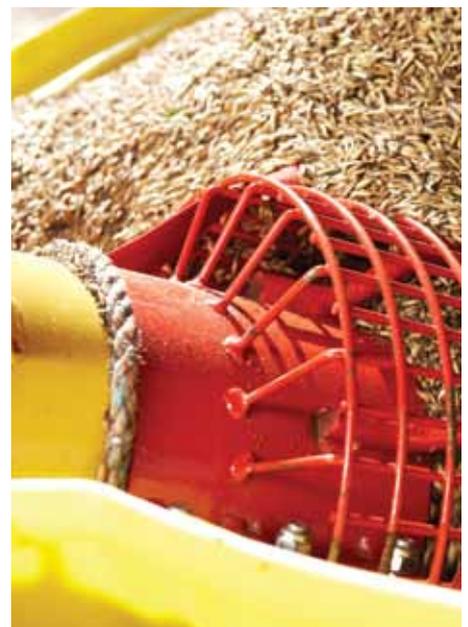
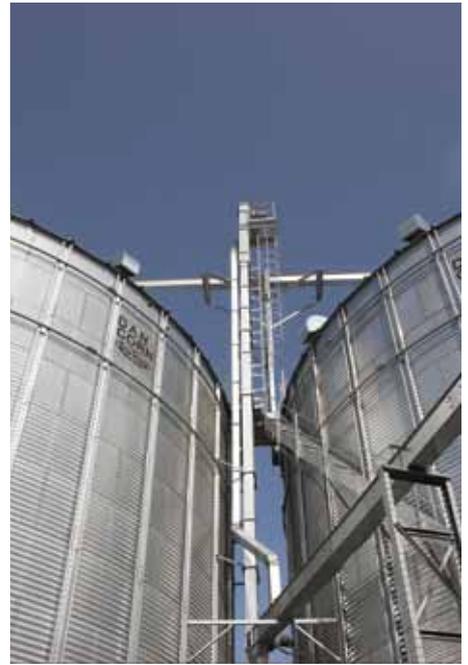
Flows are shown and started from the user surface.



## Inter-Silo control panels gives you opportunity to:

- go into more detailed overviews showing the control of the intermediate processes of the installation
- read historic operational data
- build in e.g. temperature surveillance in storage silos
- remote control / surveillance of the installation from your office through the Internet
- get access to troubleshooting, service and updating of the program via the Internet.





# Fan

## Inter-Silo D Type Fan

- 7.5-30 kW fan size
- Galvanised corrosion resistant finish
- High efficiency
- Low noise
- Low power consumption
- Statically and dynamically balanced
- Large air quantity
- With suction from right or left

This fan is developed to provide a large air quantity and the ability to overcome high back pressures. These qualities are important for every bin plant, floor storage and aeration system. It is manufactured with a fully galvanised fan impeller in order to ensure the fan a long life. Fan impeller is developed using the latest technology resulting in a highly efficient output. It is made in a modern design, which makes the fan perfect for each plant.



Output and dimensions for Inter-Silo fans provided by the manufacturer:

Type	D10	D15	D20	D25	D30	D40
Motor 1500 rpm kW	7,5	11,0	15,0	18,5	22,0	30,0
Motor 1500 rpm hp	10,0	15,0	20,0	25,0	30,0	40,0
m <sup>3</sup> air with 80 mm w.g.	19,000	27,000	32,000	37,000	44,500	54,000
m <sup>3</sup> air with 120 mm w.g.	16,800	23,000	28,000	33,800	41,500	48,500
m <sup>3</sup> air with 150 mm w.g.	14,000	20,000	25,000	31,200	38,300	46,000
Inlet mm	Ø 600	Ø 700	Ø 700	Ø 800	Ø 800	Ø 800
Weight incl. motor kg	211	310	380	410	460	915



# Mobile Oil Heaters

## Suitable for:

- Grain drying
- Space heating
- Defrosting – frost protection
- Drying after cleaning the stables
- Pre-heating of seed potatoes

## OKLIMA Indirect Oil Heater

OKLIMA type Inter-Silo oil heater has indirect heating, at which the heat emits to the air via a heat exchanger while polluting particles from the incineration are lead through the chimney.

Fuel oil, diesel oil or petroleum can be used as fuel for Inter-Silo indirect oil heaters. Oil heaters require 230/400 V connection.

The heater can be controlled manually or by means of an external signal from a hygostat, thermostat, timer or dryer control.

The heater can be supplied with oil from the built-in tank (RS heaters) or be connected to an external tank.

Inter-Silo OKLIMA oil heaters are equipped with DANFOSS controls, oil pump and a burning chamber in stainless steel in order to ensure the best operation and long life.

## Hot Water Calorifiers

Due to the unstable weather conditions it will almost always be necessary to connect a heating source to the grain drying plant.

You get a safe and favourable heating source when connecting a hot water calorifier to a central heating system. The energy source can be oil, gas, straw, wooden flakes etc.

If a very high air temperature is required two calorifiers can be connected in series. For example twin calorifiers can be mounted on a continuous flow mobile dryer.

The quoted heating outputs are approximate due to the different air quantity, pump size, pipe dimension, pipe length etc.

Calorifier output from 40 000 to 105 000 kcal/h  
 Calorifier outlet from 46.5 to 122.1 kW/h  
 Height from 700 to 1050 mm



## Calorifier

- Safe heating source
- Low operational costs
- No fire protection required
- Hot-dip galvanised
- Long life
- Tested for compressive strength up to 4 bars
- Can be used with straw heat
- Many different sizes

# Mobile Dryer

- American/Danish manufacturer
- Large drying capacity
- Low noise (centrifugal fan)
- Save up to 30% energy through heat recovery (centrifugal fans)
- Quick drying
- Simple to operate with a step-by-step touch screen
- Fully automatic and highly efficient
- Fully automatic moisture control
- Quick installation – “plug and play”
- Minimal installation and maintenance costs
- Fully mobile and highly flexible
- Value for money
- The touch screen control box can be placed separately from the dryer
- Suitable for drying of grain, canola, maize and other special crops
- Burners are delivered for liquid propane or natural gas
- Easy to clean

## Innovation:

### Quad Metering Roll:

The quad Metering Roll System prevents over-drying of the inner layer of grain, resulting in higher grain quality and more consistent moisture content. The speed of the quad metering roll depends on the moisture of the grain and what drying effect you want.

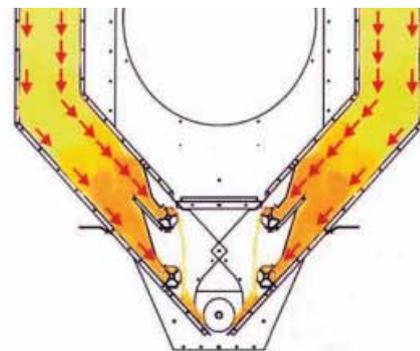


The most advanced and user-friendly microprocessor controller on the market provides trouble-free, no-hassle operation of the dryer. A touch screen control panel is standard equipment.



### Moisture control:

True moisture sensing of discharged grain. The sensor actually measures the moisture content of the grain (rather than variation in the grain temperature) resulting in much more even moisture content. Metering roll speed is based upon the moisture content, to ensure a more representative grain sample.



### Dryer dimensions:

Inter-Silo	Weight	Dimensions in mm		
Type	KG	A (Length)	B (Height)	C (Width)
DC12CE	3.719	6400	4730	2400
DCC163CE	4.400	8230	4730	2400
DCC243CE	6.441	10670	4730	2400

Transportation height: 3700 mm



# The dryers are available in 3 standard models

## Batch dryer - Model DC12CE:

- Automatic continuous flow drying - full heat
- Automatic batch drying - dry & cool or full heat

## Continuous flow dryer

### Model DCC163CE and DCC243CE:

- Automatic continuous flow drying – dry & cool or full heat
- Automatic batch drying – dry & cool or full heat

The DCC163 and DCC243 can be upgraded to Stack Dryers for increased capacity.

Inter-Silo also delivers Stack Dryers with capacities up to 150 t/h and Tower Dryers with capacities up to 200 t/h.

All dryers are delivered incl. touch screen control panel, automatic moisture controller, fans and heaters. All dryers are tested in scale 1:1 before delivery.

Delivered as a standard with jacks and transport kits for easy installation and mobility. Supplied fully assembled and tested with electricity, gas and grain.



DC 12 mobile dryer with axial fan



DCC163 mobile dryer with centrifugal fan

## Drying capacities t/h

			Maize 20-15 %		Maize 25-15 %		Wheat 19-15 %		Wheat 19-15 %	
Inter-Silo dryer	Working load	Fan effect	Continuous flow drying		Continuous flow drying		Continuous flow drying * (Batch drying)		Continuous flow drying džiovinimas	
			with cooling * Batch drying	without cooling	with cooling * Batch drying	without cooling	with cooling		without cooling	
Type	Amp.	kw	Temp. °C		Temp. °C		Temp. °C		Temp. °C	
			100°	100°	100°	100°	60°	100°	60°	100°
DC12CE	42	15	*7,7	14,5	*5,8	8,9	*8,2	*10,3	13	24,3
DCC163CE	61	22	12,5	20,9	7,9	12,8	9,9	18,5	16,5	31,0
DCC243CE	99	45	16,6	27,7	10,7	17,7	17,7	33,3	28,9	54,2

The mentioned capacities are maximum capacities. The drying capacities for continuous flow without cooling is incl. water removal during cooling after drying.

The drying capacities are on wet basis and can vary due to differences in the physiological characteristics of the grain, weather conditions etc.

\* Batch drying capacity (after loading the mobile dryer completely the drying process is carried out, then the heater source is turned off and only then the cooling process is carried out. Unloading process is carried out at the end).

# Westfield MK Auger



- Canadian high quality auger
- Well tested construction
- For tractor PTO
- Suited for filling large grain stores and outside bins
- Mobile - can be used on several farms
- Low operation expenses

The MK auger is produced at one of the world's largest auger manufacturers and provides very high flexibility and durability during grain transportation.

## Capacity

MK 80: up to 110 t wheat/hour (8" = 203 mm)  
 MK 100: up to 160 t wheat/hour (10" = 254 mm)  
 MK 130: up to 245 t wheat/hour (13" = 330 mm)

## Equipment

Flex. outlet spout in plastic: 8-10", 5 parts, l: 900 mm  
 Flex. outlet spout in plastic: 13", 5 parts, l: 1250 mm  
 The auger is delivered unassembled

## The incredible grain auger...

The MK auger is supplied with a practical mechanically driven hopper to dump the grain in and a wide transport wheel kit that ensures a stable working situation. The height of the auger is easily adjusted by one or two hydraulic cylinders.

Dimensions for MK augers:

Type	Length m	Effect PTO-hp	Dimensions in mm (lowest/highest)	
			A	B
MK 80x71	21,5	50	3 800 / 14 140	10 200 / 8 250
MK 100x61	18,5	60	3 470 / 12 310	8 770 / 7 070
MK 100x71	21,5	65	3 800 / 14 140	10 200 / 8 250
MK 100x81	24,5	75	3 800 / 16 380	12 340 / 8 990
MK 100x91	27,0	90	3 800 / 18 080	13 580 / 10 440
MK 130x71	21,5	100	3 650 / 14 140	10 200 / 8 250
MK 130x81	24,5	130	3 800 / 16 380	12 340 / 8 990
MK 130x91	27,0	140	3 800 / 18 080	13 580 / 10 440



# Westfield WR Auger



- Canadian high quality auger with high capacity
- Electrically powered or with tractor PTO
- Value for money
- Perfect for loading large grain stores and outside bins

## Capacity

- 8" (203 mm): Up to 81 t/h.
- 10" (254 mm): Up to 130 t/h.
- Length: From 8 to 21.5 m

Max. capacity at an incline of 15° and a feeding efficiency of 85%. At an incline of 30° the capacity decreases by 20-25% and at an incline of 45° the capacity decreases by 35-40%.

## Accessories

- Flexible 8-10" plastic outlet spout, 5 parts - Length: 90 cm.
- Large poly hopper: Height x dia. 50 cm x 125 cm.
- Side drive for PTO.
- The auger is delivered unassembled.



# Westfield UT Auger



- Canadian high quality auger
- Solid construction
- Suitable for many purposes
- High capacity
- Easy assembly
- Low speed

The Westfield UT augers, produced by one of the world's largest auger manufacturers in the world, has since 1950 grown to become a very well-known and reliable product for the transportation of grain.

The UT augers are delivered with motor mount, pulley, capacity regulation, bearing for auger flighting, protection screen and mounting fittings.

## Available accessories:

Wire strengtheners for large augers, big poly hopper etc.

## Available in the following dimensions:

- 6" (152 mm),
- 8" (203 mm),
- 10" (254 mm).

A UT auger consists of one basic section with outlet spout and drive unit, extensions available in 3 different lengths and lower section with inlet basket or inlet hopper.



The auger is delivered unassembled.

Type	Max.capacity	Speed
6"	43 t/h	475-560 rpm
8"	81 t/h	450-475 rpm
10"	114 t/h	380-405 rpm



# Westfield B-16 auger for grain and fertilizers



- Canadian high quality auger
- Diameter Ø6" (Ø 152 mm)
- Length, telescopic outlet: 4.5 m
- High capacity: 25 - 30 t/h
- Mounts / demounts fast to your trailer
- From transport to working position within a few seconds
- Includes remote control
- Wide range
- Easy cleaning
- Durable hydraulic motor
- Delivered fully assembled

With the Westfield auger for grain and fertilizers on your wagon, you can easily and quickly handle large quantities of grain and fertilizers. The auger is mounted quickly with only one assembly bolt and without use of any tools. The auger is delivered incl. remote control.

## Capacity:

25 - 30 t/h

## Dimensions:

- The length in working position is 4.7 m.
- The pipe diameter is 6" (152 mm)



Type B-16 to be mounted on the rear of your wagon.

# Turn key solution



## WE DON'T CLAIM TO BE IMPECCABLE . . .

...But you can be sure that we will follow through with your project from A to Z. Should any challenges occur, we aren't running away. From the first contact on, you benefit from Inter-Silo and our strong suppliers' many years of experience.

### THE PROCESS

#### 1. FIRST CONTACT

The first contact is always important and therefore Inter-Silo project consultants spend the appropriate amount of time to get to know you and your project. You are guaranteed competent feedback from day one.



#### 2. SOLUTIONS

Early in the process our sales consultant will evaluate possible solutions on site and measure relevant dimensions in order to give you a realistic impression of the final project.



#### 3. PROJECT PROPOSAL

Based on the initial discussions of the first visit, Inter-Silo will present you a project design proposal, which we will evaluate with you. The proposal includes the visual project layout and all price specifications. We will answer all your questions and the project proposal will be modified accordingly, so it meets your exact requirements.



# Turn key solution

## 4. FINANCIAL SERVICES

We offer intermediary services for project financing. We can prepare and collect all the necessary documents so you are able to present your projects professionally and most convincingly to the financial institutions you wish to work with. We are also here to assist you in accessing EU funds for your project.



## 5. PROJECT APPROVAL

When we have agreed on the final details, the order is signed and you are assigned your own personal Project Manager from our Technical Department. The final project drawings are sent to you for your final approval.



## 6. BUILDING PERMISSION

We can assist you in the process of acquiring the construction permits, and projects will not commence until official approvals are obtained

## 7. ASSEMBLY

In accordance with the project, we are able to lay the foundation that conforms to all technical requirements for the grain silo construction and installation. When the foundation is dry and other relevant preparations are completed, the assembly crew starts to work.



## 8. ASSIGNMENT

When the installation process is finished and all works are done, your project manager from Inter-Silo will visit you and make an inspection of the project. During this he will show and explain everything about operating the system, so you are confident about all aspects of your new grain system.

## 9. FOLLOW-UP

Before, during or after harvest you still might have some questions or doubts of how to operate your new grain system. We're always there to answer them, and as we understand the importance of effective harvesting - we offer our clients a 24/7 service line during harvest.



# Services



## EU FUNDING

We are here to assist you in accessing EU funds for your project. We offer consultations and support during the initial phase of the project. During later stages, we will introduce you to an expert who will assist and guide you during the implementation and evaluation. This can include guidance regarding available subsidies, assistance in preparing and handing in the applications and the business plans, evaluating the conditions of the funding agreements, preparing the further documentation and more.

## PLANNING

Project planning includes preparing the complete package of all necessary documents for the project. In close cooperation with the customer, our highly qualified planners take into account the complexity of the project, prepare all the required drawings and documentation and can assist with obtaining any necessary building permits. The technical task is first coordinated with the customer. Then, a detailed list of all indispensable technical documentation is compiled, and the process of the whole project is divided into stages, where the deadlines for each stage are agreed with the customer.

## CONSTRUCTION SUPERVISOR

The services of the construction supervisor are suitable for clients who wish to perform part of the installation on their own. We are able to offer the services of our own experienced supervisors who will cooperate with the representatives of the client and appropriately carry out all stages of the project.

## LAYING FOUNDATION

In accordance with your needs, it is possible to include foundation laying into your specific project. The foundations that we lay conform to all technical requirements for the grain silo construction and installation. In the event that our foundations crew is not available in Lithuania, we will subcontract one of other cooperating leading crews.



# Services



## CONSULTING

Inter-Silo offers their clients high quality consulting services, responding to their needs regarding construction, installation, operation, and maintenance of the grain silos and their equipment.

## RELOCATION AND DEMOLITION OF YOUR SILOS

If your current silo needs to be relocated or demolished, Inter-Silo is ready to present you with possible solutions to this issue and carry them out.



# Industrial Projects

Inter-Silo installers have years of experience within the line of construction and installations for grain handling, storage and transportation. We offer small and XL - projects - and everything in between!

## An industrial quality bin from Inter-Silo

- Bin diameter from 10.97 to 47.5 m
- Capacity from 800 t to 37 500 t of wheat
- Well-tested construction
- External stiffeners provide for maximum strength
- Galvanised steel construction
- Minimum effort required for loading and unloading
- Grain storage without access for birds and animals
- Aeration system
- Optimal use of the developed space
- Stairs and catwalks = safe access
- Grain storage at a low price
- Regulation safety devices fitted

## Bin installation includes:

### Control panel

Touch screen control panel adapted to your specific wishes and requirements. At the same time you have the option to remote control and update the installation via the Internet.

### Temperature monitoring system

With an Agrolog temperature system you may supervise and control the temperature in your storage bins.

### Aeration

The air is supplied at the bottom of the bin either through concreted channels in the floor or through a fully perforated aeration floor mounted in the bin. The air leaves the bin through a number of roof vents in the bin roof.

### Fan

Inter-Silo fans from 7.5 – 40 kW are manufactured with a fully galvanised fan impeller in order to ensure the fan a long life.

### Conveyor system

Beside the storage facilities, an Inter-Silo bin installation also includes a conveyor system for loading and unloading of the bins. The conveyor sys-

tem would normally include bucket elevator, augers and chain conveyors and offer you the best possible grain bin installation.

### Inter-Silo industrial dryers with capacities up to 200 t/h.

The modular, low noise Stack Dryers and Tower Dryers are with energy saving heat recovery as a standard.

All dryers are designed with focus on simplicity, operational reliability, drying efficiency, user-friendliness and energy efficiency.



# Hornsyld Købmandsgaard A/S industrial project



In 2012, Inter-Silo constructed the largest grain silo in the history of Denmark. The capacity of this silo is a staggering 8 000 tons.

In 2012, the same client had a type 2716 hopper bin and the first tower dryer in Denmark installed by Inter-Silo.

In 2014, Inter-Silo is going to install another two model 7818 grain silos for the same customer. Each of them will have a capacity of 8 000 tons, and the total capacity of the Hornsyld Købmandsgaard A/S industrial project is going to reach 24 000 tons.

## **Lars Christensen, Hornsyld Købmandsgaard A/S (Denmark) Manager:**

*„One year the farmers sold us more grain, so we had to take big step up on the grain storage and drying facilities. This was the main reason we installed such a large dryer with a capacity from 130-150 tons per hour. On the long harvest days we could see that the dryer finished everything and the intake was always empty between the trucks. We are all very satisfied with the functionality. The company's experts helped us with drawing works, calculations, local authorities and so on. Our experience with them is extremely positive.“*

## **Jens Jensen, Hornsyld Købmandsgaard A/S Operations Manager**

*“This tower dryer is definitely the right installation for us as it fulfils all of our expectations. We were promised the dryer that could dry between 100-110 tons per hour but we easily dry 150 tons per hour by 4 % down. We also spent time on a control panel together and developed main Inter-Silo platform so that it looks like our existing control panels, plus, the end user platform has been fully synchronised.“*



## How wet can the grain be when it is loaded in the silo?

It is a difficult question to answer, since many parameters play a part in this regard, such as moisture content, quantity, filling speed of the silo etc. Generally speaking, it is important to start the drying and stirring process as soon as 0.5 m grain is in the silo. You have to keep in mind, that you are carrying out a batch drying. Get a more detailed answer by contacting Inter-Silo.

## Do I have to apply for a building permission prior to building a silo?

Yes, you always have to apply for a building permission, and Inter-Silo can be of assistance in this process.

## What sizes of silos can I buy?

From 47 to 1 307 t with stirring (drying silo) and from 61 to 37 500 t without stirring (aeration silo).

## What is the service life of a silo?

Generally speaking, the service life of a silo is 25 – 30 years. But the silo has to be maintained on a regular basis like any other machine. It is strongly advised to clean the roof after filling, so no dust or chaff can corrode the roof galvanization. It is also vital to keep roof vents and the space between the side wall and the roof free from dust – in this way, air and moisture can always get out of the silo when it is used.

## How do I clean under the silo floor?

Normally it is not necessary to clean under the floor. You may want to take out the floor every 8 to 10 years, clean the silo and re-mount the floor.

## How long does it take to stir/mix the grain in a silo?

The stirring system uses 6 – 8 hours to stir one revolution in the silo. During normal drying processes the stirring system will run 4 – 10 days depending on the moisture content in the grain. After this drying/stirring process the grain is also mixed into a 100% homogeneous volume.

## Must I stir my silo during unloading?

Normally not. The stirring system must be parked as close to the silo wall as possible when it is not operating and you unload from the silo. You can let the stirring system operate in the end in order to pull as much grain towards the silo centre and thus optimize the unloading before the sweep auger is operated in order to make the final unloading.

## Can I dry maize in a silo with a stirring system?

Definitely not! Maize harvested in Northern Europe often has a water content above 35. Since maize has a large kernel and the drying process in a stirring silo is – and has to be – slow, it will take too long to dry this type of crop. The maize would break down before it is dry. You cannot mix wet maize in a silo with e.g. dry wheat because the wet maize would spoil the dry wheat. A mobile dryer from Inter-Silo is the best option to dry your maize instead.





# INTER-SILO

Because Grain Matters...



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