

Mechanical Grain Conveying



Efficient Mechanical Conveying Solutions

KBE Bucket Elevators



Compact drive solution with bevel gear motor.



Elevator boot inlet.



Tension of the bucket is easily done by adjusting the pulley at the elevator boot.



Access to elevator boot emptying.

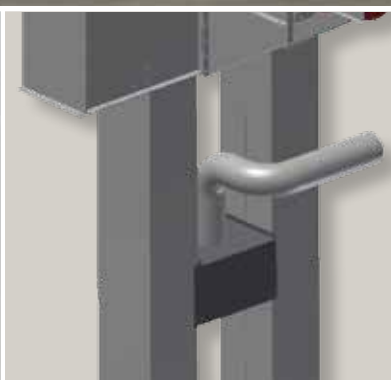
KBE bucket elevators are used for energy-efficient and gentle vertical conveying of grain etc. up to 25 m with capacities between 20-120 tonnes per hour.

Includes the following

- Modular system with easy extension to the desired conveying height
- Weather-proof galvanized surfaces
- High efficiency bevel gear motor with minimal space requirement
- Shuttered inlet
- Belt tightening at elevator boot
- Cleaning hatch in elevator boot
- Wide range of adaptors for inlet and outlet

Accessories - Wide range for optimum adaptation

- Back stop preventing the belt from running backwards with subsequent blockage of the elevator
- Speed sensor for control of belt speed
- Rain covers for motor, sensor and return valve
- Spigot for dust extraction from elevator pipes
- Oil resistant belt for e.g. conveying of rape
- Plastic buckets for sensitive crops
- Spacers between the belt and buckets for self-cleaning conveyance



The back stop prevents the elevator belt from running backwards (optional).

The speed sensor signals when the bucket belt stops (optional).

Dust suction spigot (optional).

Assembly of belt - mounting of buckets with self-locking nuts.

Technical specifications

	KBE 20	KBE 40	KBE 60	KBE 80	KBE 100	KBE 120
Capacity 700 kg/m ³ 15% H ₂ O, t/h	20	40	60	80	100	120
Material thickness extensions, mm	1.5	1.5	1.5	1.5	1.5	1.5
Material head and bottom, mm	3	3	3	3	4/3	4/3
Extensions standard, m	2.5 - 1.0 - 0.5 - 0.25					
Belt speed, m/sec	2.8	2.8	2.8	2.8	3.0	3.0
Belt width, mm	150	150	200	200	230	230
Buckets, per m	6	12	8	10.5	7.5	9
Motor power, kW	1.1 - 3.0	2.5 - 5.5	3.0 - 7.5	4.0 - 9.2	5.5 - 15	7.5 - 15

KCC Chain Conveyor



Bevel gear motor with high efficiency.



Extension with side inlet and capacity control.



Intermediate Inlet with capacity control.



Motor rain cover for outdoor installation.

KCC chain conveyors are used for horizontal conveying of grain and can be built in lengths of up to 50 m. Conveying capacities of up to 120 t/h (750 kg/m³)

Benefits

- Quick and easy assembly for different conveying distances using standard modular system of extensions.
- All modules are made from galvanized steel
- Suitable for outdoor installation
- The conveyor is supplied with a 10 mm PEHD-reinforced base
- High efficiency bevel gear motor with minimal space requirements
- Overflow flap with switch on drive unit
- Cleaning buckets with carriers every approx. 2m chain
- Extensions with side inlet for installation in grain pit

Accessories

- Intermediate outlet, manual or electric operation
- Inlet with capacity control
- Wide range of inlets to fit different standard pipe diameters
- Capacity control for chain conveyors with side inlets
- Rain cover for bevel gear motor
- Cleaning brush on intermediate outlet to avoid overflow



Conveying chain is fitted as standard with cleaning buckets.



Intermediate outlet fitted in the conveyor base. Operated manually or electrically.



Return section with equipment for tensioning of conveying chain.



Drive section with outlet and overflow.

	KCC 40	KCC 60	KCC 80	KCC 100	KCC 120
Capacity 700 kg/m ³ 15% H ₂ O, t/h	40	60	80	100	120
Material thickness extensions, mm	2/3	2/3	2/3	2/3	2/3
Chain speed, m/sec	0.6	0.6	0.6	0.6	0.6
Spacing of carriers, mm	200	200	200	250	250
Standard extensions, m	2.97 - 1.27 - 0.67 - 0.37				
Length of drive and tensioning section, m	1.0				
Cross-section of conveyor w x h, mm	230 x 310	230 x 360	330 x 360	330 x 410	330 x 510
Motor power, kW	1.5 - 5.5	2.2 - 7.5	2.2 - 9.2	3.0 - 11.0	3.0 - 15.0

KCA Chain Conveyors



Bevel gear motor provides compact solution.



Extension with side inlet.



KCA chain conveyor for inclined conveying along silo roof



45° angle bend for KCA chain conveyor.

KCA chain conveyors are used for conveying of grain when inclined conveying up to 45° is needed. Capacities from 60 to 120 t/h.

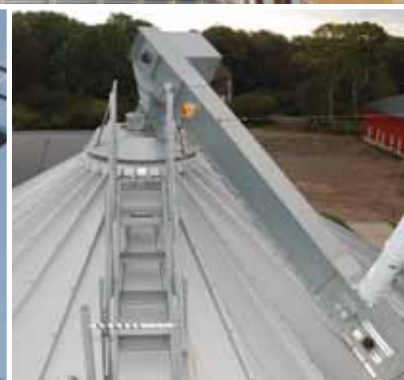
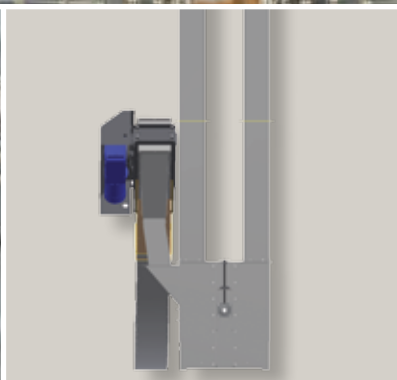
Benefits

- Wide range of standard extension modules
- Galvanized external conveyor surfaces
- Suitable for outdoor installation
- Bevel gear motor means high efficiency and easy installation.
- Low noise levels thanks to PEHD carriers on the conveyor chain.
- Overall length up to 50 m, depending on layout and capacity.
- Extensions with side inlet for horizontal installation in grain pit

Our standard range of straight extensions and angle pieces provides easy solutions to both horizontal and inclined conveying.

Accessories

- 30° and 45° angle sections from horizontal to inclined and inclined to horizontal conveying
- Drive unit with chain tensioner
- Range of standard inlets and outlets
- Manual or motorised intermediate outlet
- Transmission for bucket elevator intakes
- Rain cover for bevel gear motor
- Blockage cut-out switch at drive and return end.



Motorized intermediate outlet.

Drive unit with tensioning section with outlet connected to KBE inlet.

KCA chain conveyor with angle section from inclined to horizontal conveying.

Chain conveyor mounted on silo roof. Rain cover for bevel gear motor

	KCA 60	KCA 80	KCA 120
Capacity 700 kg/m ³ 15% H ₂ O, t/hour	60	80	120
Material thickness extensions, mm	2/3	2/3	2/3
Chain speed, m/sec	0.82	0.77	0.6
Carrier spacing	200	200	250
Extension cross-section w x h	230 x 410	330 x 410	430 x 550
Standard extensions, m	2.97 - 1.27 - 0.67 - 0.37		
Drive unit with chain tensioner	+	+	-
Maximum length, m	50	40	48
Motor power, kW	3.0 - 11.0	3.0 - 11.0	4.0 - 15.0

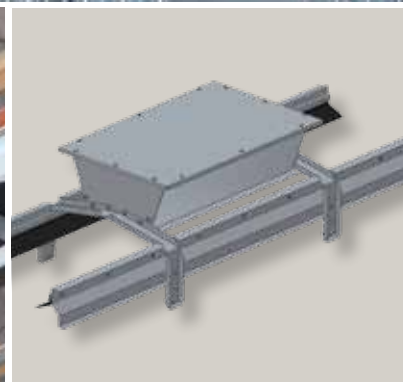
BCB Belt Conveyors



Drive unit with gear motor.



Intake BCB 45.



Movable intake.



Motorized discharge unit for BCB 45.

BCB belt conveyors are used for horizontal or inclined conveying of grain up to 15°. The capacity is up to 80 t/h over 100 m. Capacity is reduced at inclined conveying.

Benefits

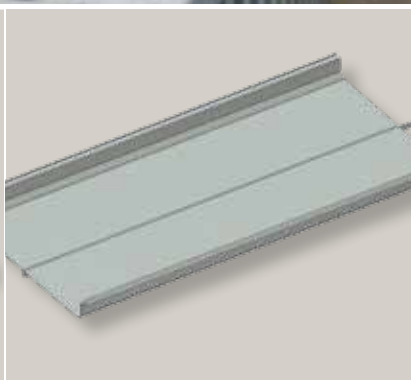
- Modular system that provides flexible solutions based on standard components
- Low energy consumption
- Self-cleaning conveying
- Belt conveyor for 60 and 80 t/hour is galvanized for outdoor installation.
- One-way or two-way conveying.
- Infinite discharge points

Accessories

- Discharge unit, that can be moved lengthwise along the conveyor belt, for discharge on both sides of the belt
- Inlet that can be run on the conveyor
- Cover and dust guard below the belt
- Speed sensor for control of belt speed
- Multiple intakes on the same belt
- Scraper to clean the belt



Cover for BCB 45.



Dust guard below belt conveyor.



Solution with two belts fitted at a 90° angle. The lower conveyor belt can move lengthwise.

	BCB 45	BCB 60	BCB 80
Capacity 700 kg/m ³ 15% H ₂ O, t/hour	45	60	80
Belt speed, m/sec	2.2	2.36	2.36
Belt dimensions † x w, mm	3.2 x 300	5.5 x 400	6 x 500
Material thickness extenders, mm	1.5	2	2
Standard extensions, m	2.0 - 1.0 - 0.33	2.0 - 1.0 - 0.5	
Belt support	Steel trough	Low friction rails	Rollers
Dimension drive rollers Ø, mm	175	300	300
Maximum length, m	50	80	100
Transmission	Belt drive gear	Gear motor	Gear motor
Motor power, kW	2.2 - 4.0	2,2 - 2x4,0	2,5 - 2x3,0

CFG Chain Elevators



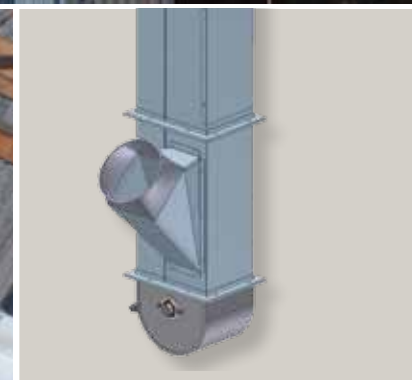
Chain elevator for filling silos.



Chain elevator with side auger on both sides in grain pit.



Elevator head with gear motor.



Inlet directly in the lower section of the chain elevator.

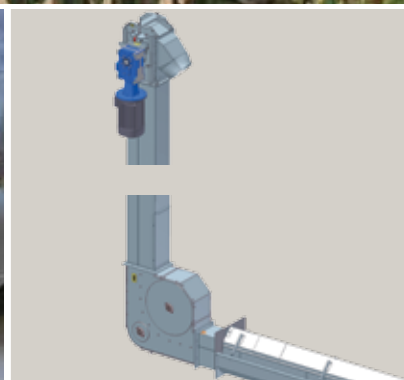
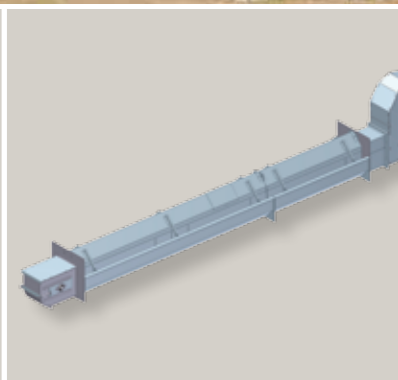
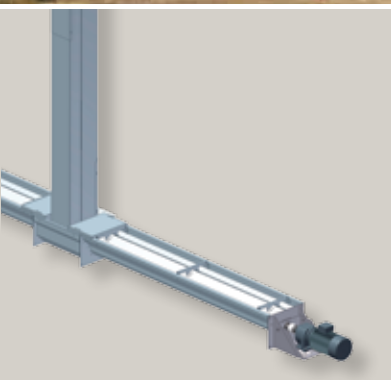
The CFG chain elevator is an excellent solution for conveying capacity requirements of 20-40 t/h. CFG chain elevator can be adjusted for conveying at all inclinations from horizontal to vertical.

Solutions with

- Trough inlets
- Side auger connected to elevator boot
- Side auger with motor at elevator boot
- Motor in end of side auger
- Closed elevator base, inlet on downpipe shaft
- 90° angle
- 45° angle

Benefits

- Flexible modular system which offers many options for conveying solutions
- Single motor for horizontal and vertical conveying
- Galvanised surfaces for outdoor installation
- Gear motor or belt drive
- Rain cover for motor
- Open auger troughs for grain pit. Closed auger troughs for horizontal conveying.
- Low inlet height
- Standard range of connection pipes
- Guy wire system permits up to 15 m between supports indoors and 10 m outdoors for horizontal conveying.



Side auger with gear motor connected to the elevator boot.

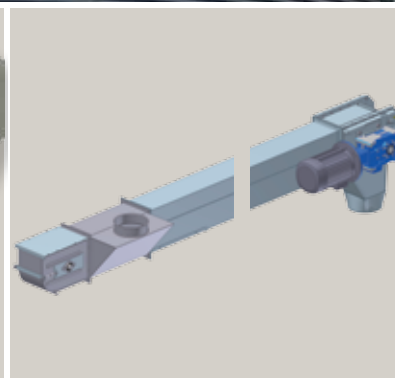
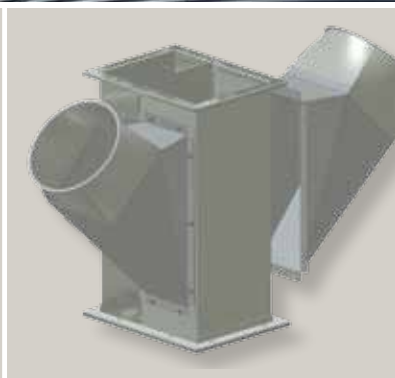
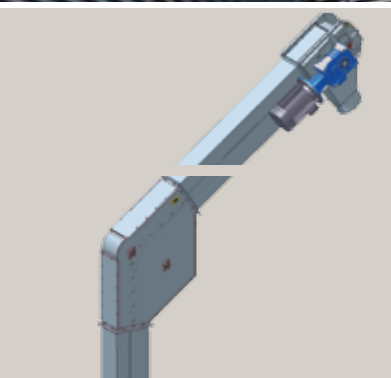
Extensions with side inlet to CFG chain elevator/conveyor.

Chain elevator with 45° angle. Drive section with belt drive

Chain elevators for horizontal and vertical conveying. Side inlets for horizontal section.

	CFG 20	CFG 40
Capacity 700 kg/m ³ 15%H ₂ O, t/hour	20	40
Material thickness extensions, mm	1.5	1.5
Elevator shaft dimensions w x d, mm	164 x 278	228 x 278
Chain speed, m/sec	1.6 - 1.75	1.6 - 1.75
Standard extensions, m	2.5 - 2.0 - 1.0 - 0.25 - 0.125	
Outlet connection	OK 160	OK 200
Overall length (maximum vertical + horizontal), m	20	20
Motor power, kW	1.5 - 5.5	1.5 - 5.5

CFG Chain Elevators



Chain elevator with angle for combined vertical and 55° inclined conveying.

Inlets can be fitted on both sides of the elevator casing downpipe side.

Horizontal conveyor around the inlet. Drive section with gear motor.

Chain elevator from the grain pit delivers the grain to the flexible foot on the next elevator.

Angle Elevator

If you need a conveyor to work both horizontally and vertically, the angle elevator provides the solution.

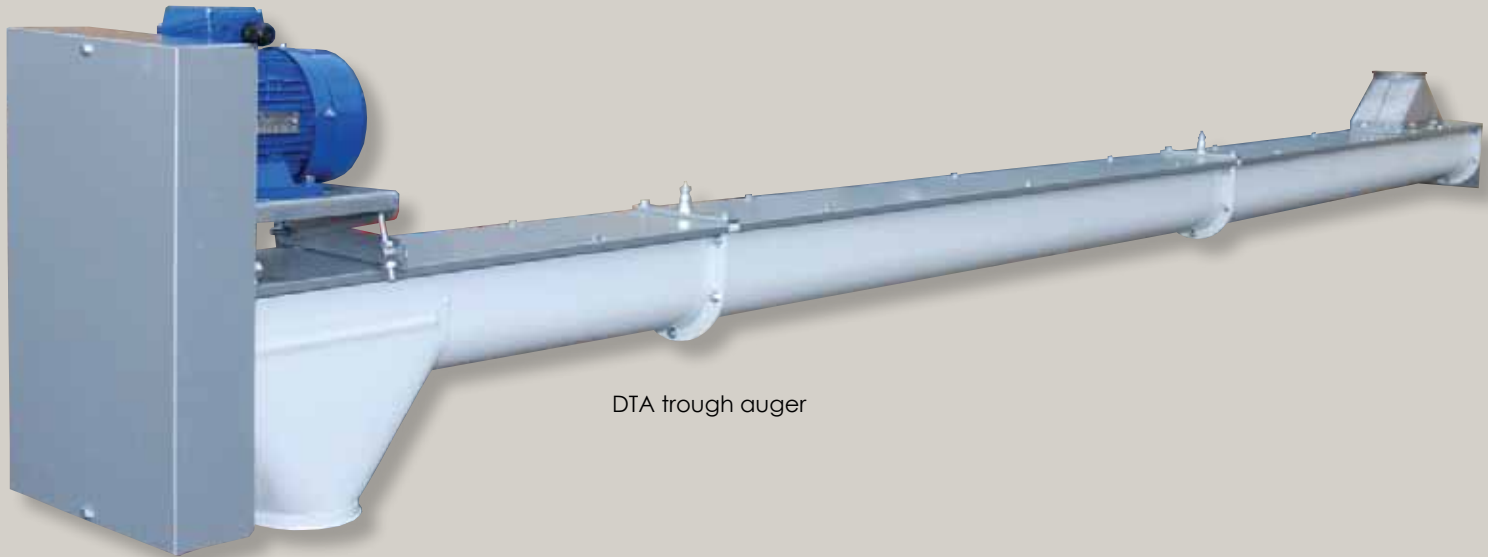
Benefits

- Grain is initially conveyed vertically through an angle piece that changes the conveying from vertical to 55° inclination.

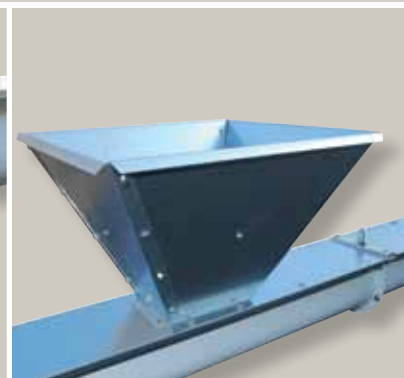
- Needs only connection to a single motor.
- Inlets are fitted to the elevator shaft on the downpipe side, either at the rear or on the sides.
- Compact solution for filling storage e.g. silos
- Optional gear or belt drives.

	FLG 12	FLG 16	FLG 20
Capacity 700 kg/m ³ 15% H ₂ O, t/hour	12	16	20
Diameter auger screw Ø, mm	135		
Inclination of auger screw, mm	60	90	125
Length of elevator drive, m	6		
Length of motor drive at auger end, m	4		
Length of motor drive at elevator boot, m	7.5		
Length of motor drive at elevator boot, closed trough, m	18		

DTA Trough Auger



DTA trough auger



Intermediate outlet with rack and pinion for control using cord drive

Intermediate bearings are standard in each extension connector.

Intermediate outlet for manual control.

Multiple inlets can be fitted.

Trough augers are the most economical solutions for horizontal conveying. DTA trough augers convey up to 50 t/h over a distance of up to 20m.

Benefits

- Screw shaft is mounted on bearings, so wear on the auger is avoided during idling.
- Many solutions using standard components.
- Closed trough as standard.
- Conveys in both directions

Accessories

- Multiple inlets can be fitted to the same unit.
- Multiple outlets can be fitted to the same unit.
- Outlets are controlled manually, either directly or through pulleys.

	DTA 152	DTA 205	DTA 254
Capacity t/hour 700 kg/m ³ 15% H ₂ O	20	30	50
Maximum length, m	20	20	20
Maximum conveying length, m	19.5	19.4	19.3
Diameter of auger screw, mm	133	180	230
Trough dimension ext. w x h, mm	204 x 210	267 x 275	325 x 375
Material thickness troughs, mm	2.0	2.0	2.5
Connection on outlets	OK 160	OK 200	OK 200
Transmission	Belt drive		
Motor power, kW	1.1 - 5.5	1.1 - 5.5	2.2 - 7.5

DGS / DGA / DGC Grain Augers



DGA auger head with belt drive.



Inlet with capacity control for DGA auger.



DGS 254 auger with gear motor and capacity regulation on inlet.



Intermediate bearing for DGS auger.

These augers are economical solutions for grain conveying and can be fitted at any angle from horizontal to vertical. Conveying capacity up to 90 t/h. The smaller sizes are highly mobile.

Kongskilde offers

- DGA 102, DGA 127 and DGA 152 with belt drive and motor mounted at auger outlet.
- DGC 102, DGC 127 and DGC 152 with inlet hopper, wheeled stand and motor mounted at outlet. Max overall length 6 m.
- DGS 205 and DGS 254 with galvanized surfaces
- DGS 205 grain cannon with belt drive. Motor and belt drive are mounted at the auger's inlet (easy to fit wheeled stand).
- Range of connectors and hoppers for optimum usage.
- Capacity control on the inlet.

		DGA/DGC 102	DGA/DGC 127	DGA/DGC 152	DGS 205	DGS 254
Capacity t/hour 700 kg/ m ³ 15% H ₂ O	Horizontal	16	26	40	60	90
	45° inclination	10	17	28	42	72
	Vertical	5 / -	8 / -	14 / -	21	46
Conveying length (foot with hopper), m		12.5 / 6	12.5 / 6	12.6 / 6	11.8	11.7
Ø auger pipe ext./thickness, mm		102	127	152	205	254
		1.5	2	2	3	3
Diameter of auger screw, mm		85	108	133	180	230
Connection on outlets		OK 160	OK 160	OK 200	OK 200	Q24/ FK250
Revolutions on screw shaft rpm		1000	800	700	450/400	400
Transmission		Belt drive	Belt drive	Belt drive	Belt Drive/ gear	Gear
Motor power, kW		1.5 - 4.0	2.2 - 4.0	3.0 - 5.5	3.0 - 7.5	3.0 - 11.0

Kongskilde OK Pipe Systems



Bolt coupling and quick release coupling for assembly of pipe components.



Assembly of pipes with quick release coupling.



Wide range of pipe components for simple construction of pipe systems.



Pipe assembly for filling outdoor steel silos.

OK pipe systems

Access to an efficient pipe system is essential for the provision of high-performance conveying systems. Kongskilde's OK 160 and OK 200 pipe range is built to meet conveying requirements.

Kongskilde offers

- OK 160 and OK 200 are standard pipe systems.
- OKR 160 and OKR 200 are reinforced pipe systems greater material thickness.
- OKX 160 bends with hardened wear surfaces providing high durability and long life.

Benefits

- Quick release couplings for pipelines, when frequent repositioning is needed.
- Bolt couplings for permanent pipeline installation.

Kongskilde Industries A/S



When this year's harvest is in house, it is essential that the crop is handled and stored carefully to preserve its agricultural value. The Kongskilde grain product programme offers farmers equipment that lives up to this and suits both small and large farms.

The Kongskilde grain product programme includes:

- Pneumatic transport
- Mechanical transport
- Cleaning and weighing
- Drying
- Storage
- Complete system solutions
- Measurement equipment and accessories
- Heat sources - oil and gas burners and electric heaters
- Straw Drying

The solutions are based on pneumatic or mechanical transport, storage in floor stores or steel silos, tunnel or circulation dryers and many other details.

When cold and damp are damaging crops and creating unnecessary costs, Kongskilde mobile heaters can provide heat to overcome the problem easier and cheaper than you would think.

Sensor spheres placed in cereal and seed stores monitor the crops around the clock so the high heat does not damage them, while at the same time achieving efficient drying, traceability, quality assurance, self-monitoring and stock inventory of the crops.

Kongskilde is a company with strong traditions, as well as innovative brands, and is today known for its development of products that contribute to the efficiency of modern agriculture. Kongskilde is known for its special expertise in installations

for conveyance, drying, storage and cleaning of grain and other crops, and for drying of big bales. In addition, Kongskilde offers a comprehensive range of mobile heat sources for drying tasks and heating in agriculture, construction and industry.

Kongskilde was established in 1949, when mechanisation of agriculture began to be felt in Denmark. The company's first products were cereal blowers, tine harrows and mobile heaters. These products, which at the time set new standards, still form the basis of much of Kongskilde's business in agricultural implements and grain handling equipment.

Today, Kongskilde has become a "full-line" business in tillage, grass machinery, diet mixers and grain handling facilities. The company is represented with subsidiaries in 13 countries and with manufacturing facilities in five countries.