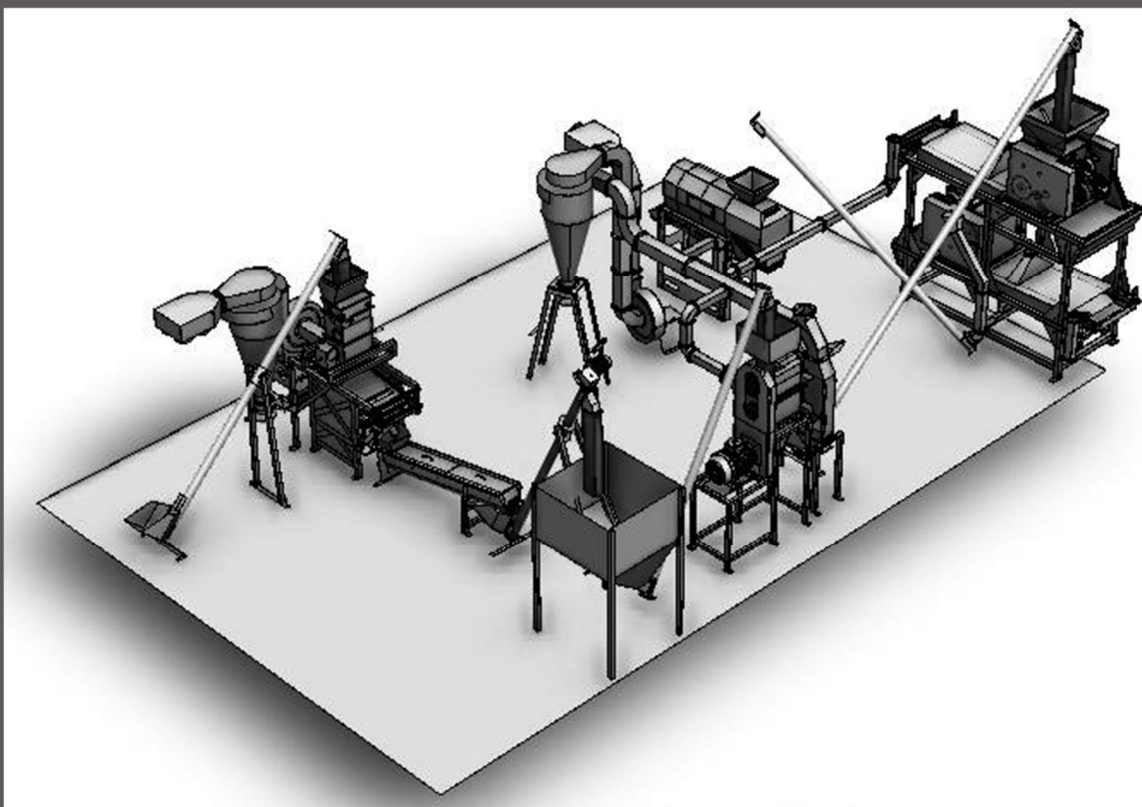


ABC Hansen Africa



Hurricane 1.5TPH Super Maize Mill



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Specifications:

Input capacity:	Up to 1.5TPH - based on hard WM1 maize
Output capacity:	Up to 1.5TPH
Output split (best):	100% input maize 2% Screenings 22% Hominy chop (bran and germ meal) 50% Super Maize meal 26% Special Maize meal
Milling type:	Roller Mill - 4 stage
Degermination:	ABC Hansen Pin and Rotor type Degerminator (DG1.5)
Sifting:	ABC Hansen Rotary Sifter (SIRC)
Bin types:	Conditioning bin - 1m ³ smooth wall square bin
Cleaner type:	Quail 1 Eccentric cleaner with aspiration and twine catcher
Bagging:	Included - ABC Hansen platform scale (SCP300) Included - Collins Handheld bag stitcher (SUBS-C) Optional - Form fill and seal machine for plastic bag packing Optional - Tip scale bagging scale for 10kg/25kg/50kg bagging in polyprop or similar bags.
Electrical supply:	400V / 50HZ / 3 PHASE
Power requirement:	80KW / 160AMP / 100KVA minimum
Plant footprint	12m(L) x 7m(W) x 4.5m(H) / 84m ²

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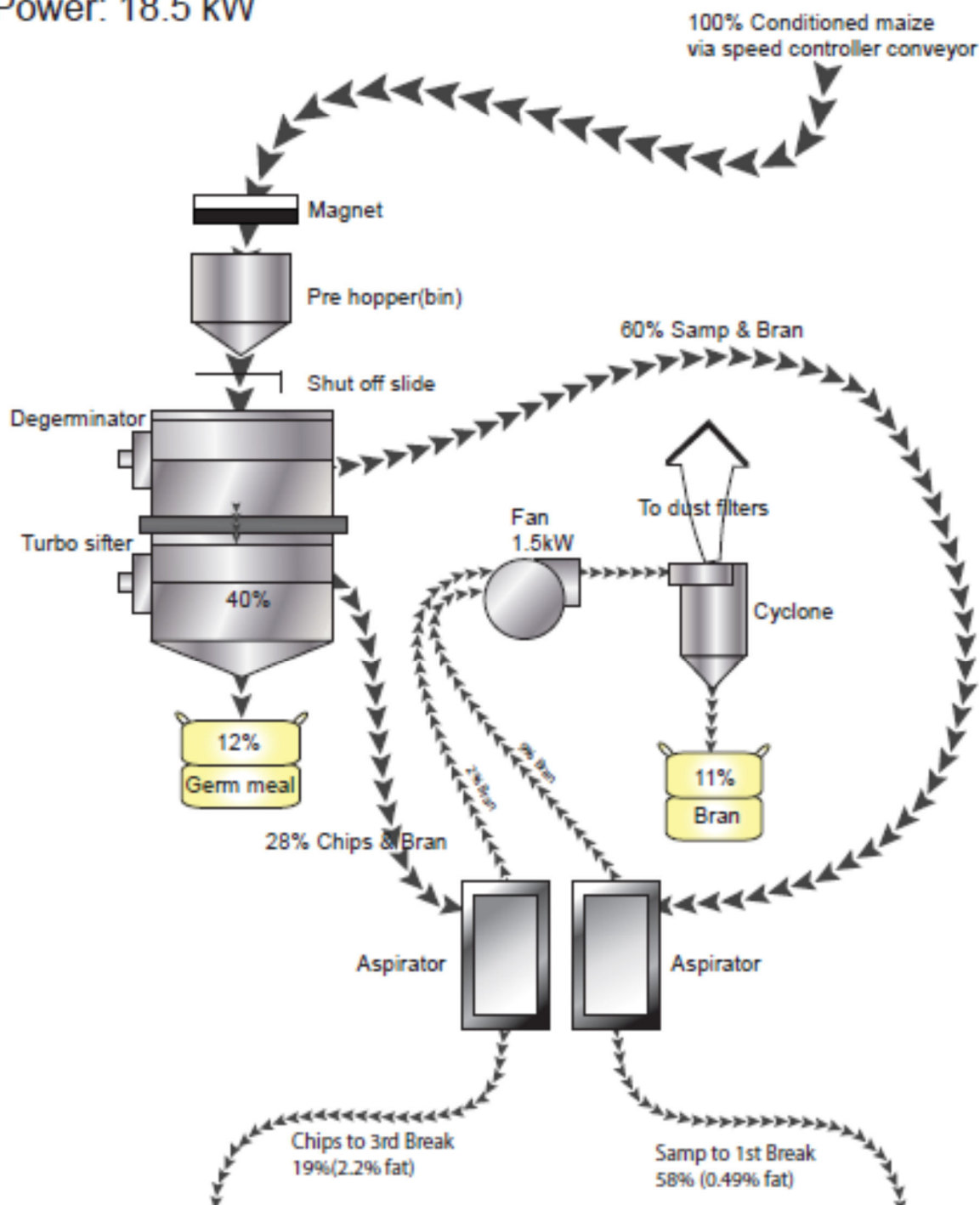
Maize Degermination System

ABC Hansen Africa

with approximate yields on hard WM1 maize

Capacity: 1.2 - 1.5 t/h

Power: 18.5 kW



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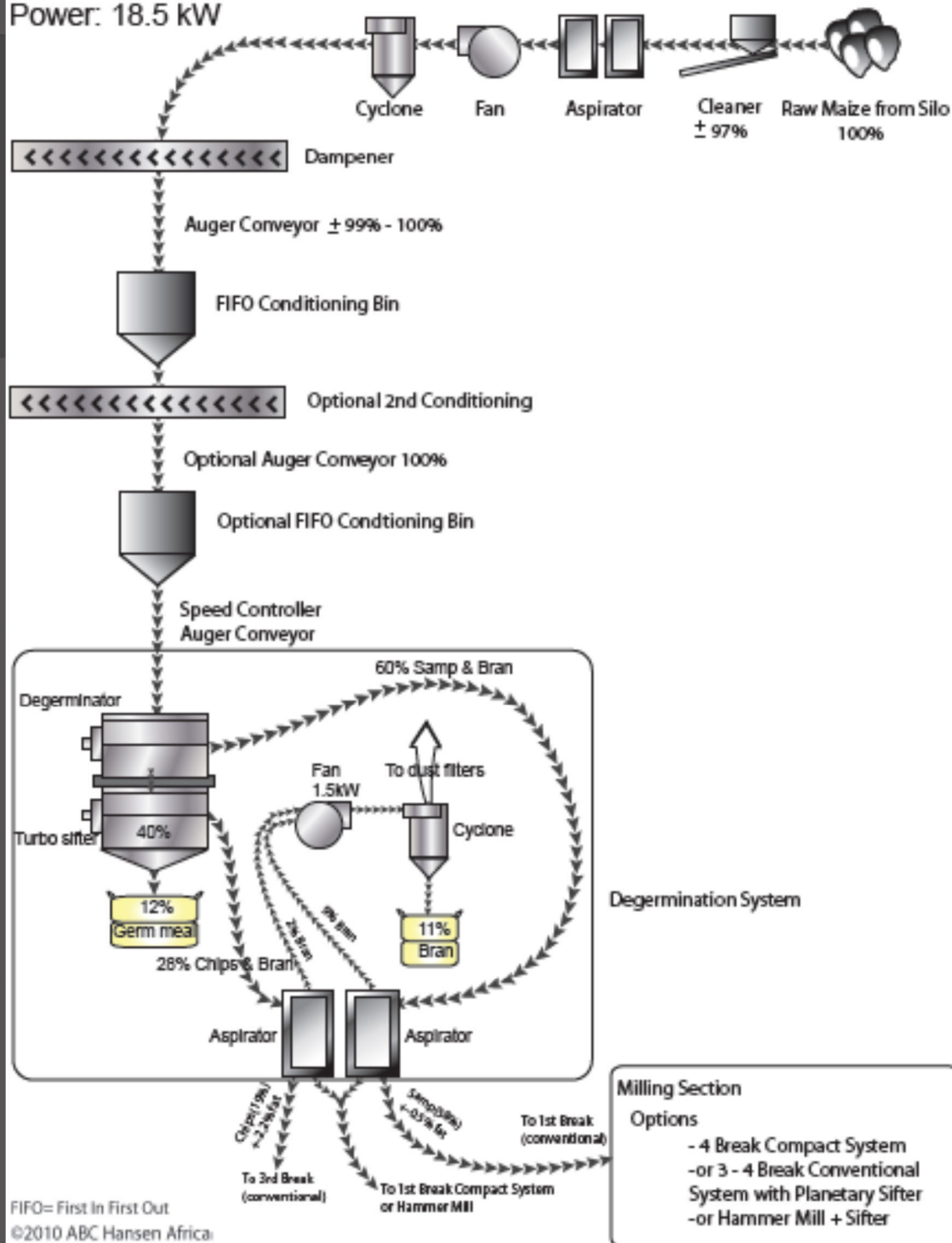
Super Maize Mill Flow Diagram

with approximate yields on hard WM1 maize

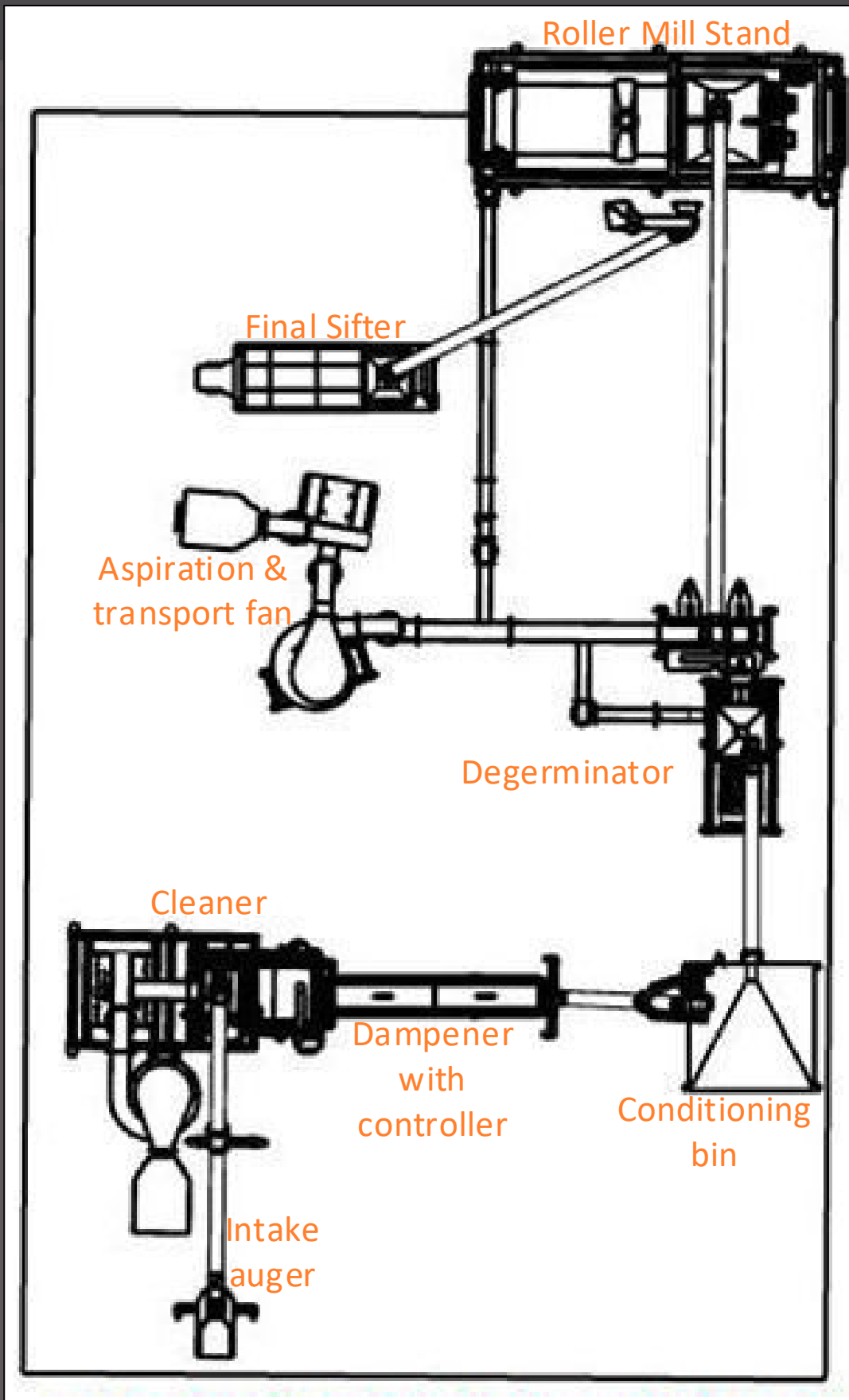
Capacity: 1.2 - 1.5 t/h

Power: 18.5 kW

ABC Hansen Africa

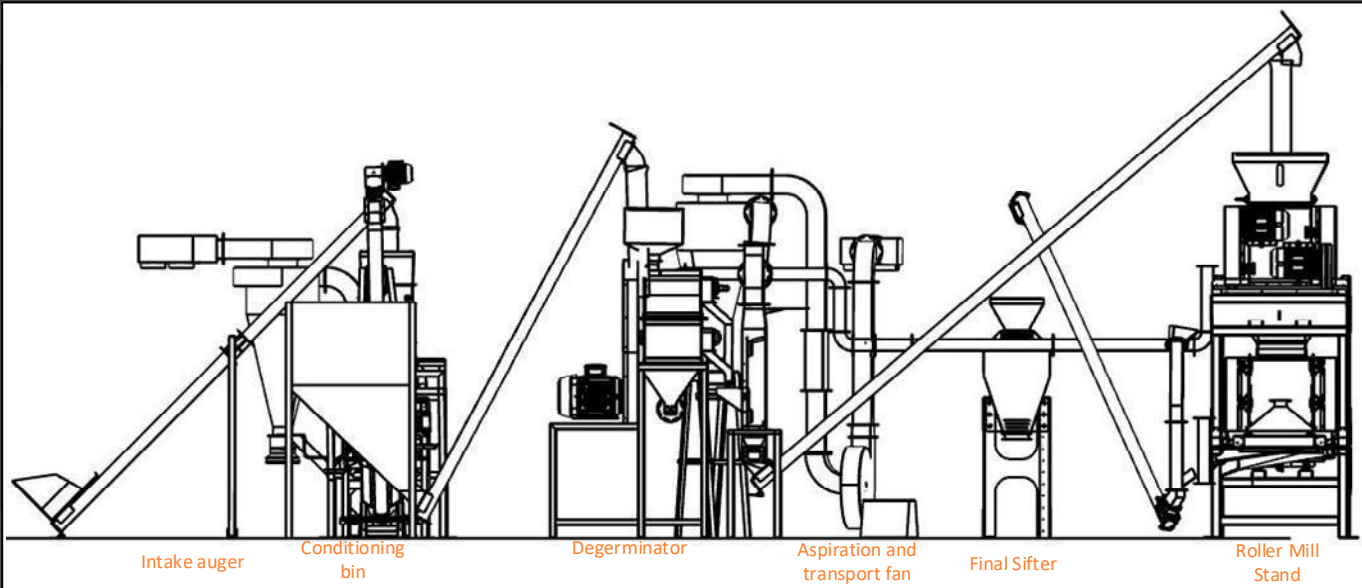


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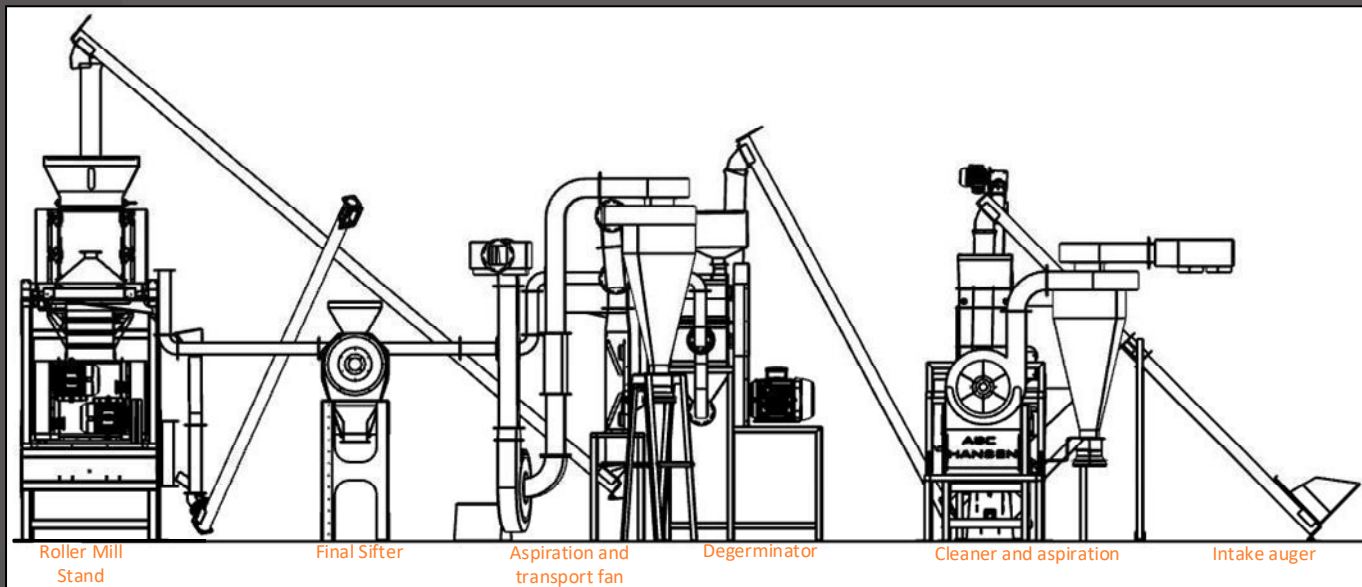


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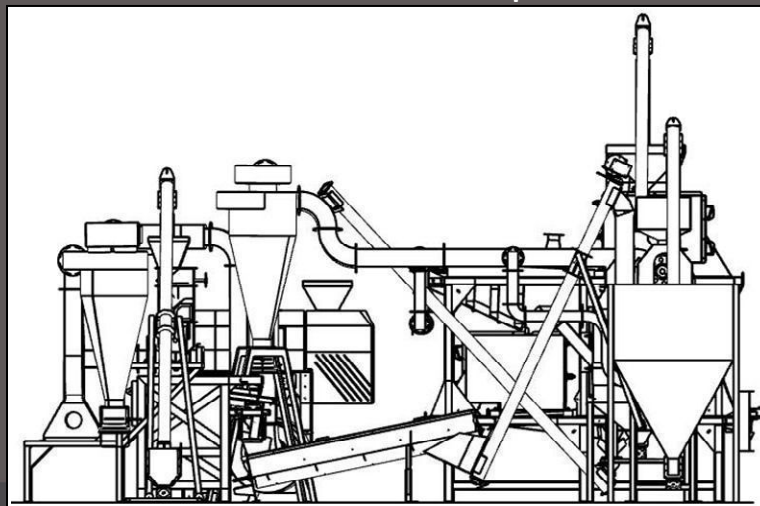
Side view of 1.5TPH Super Maize Mill



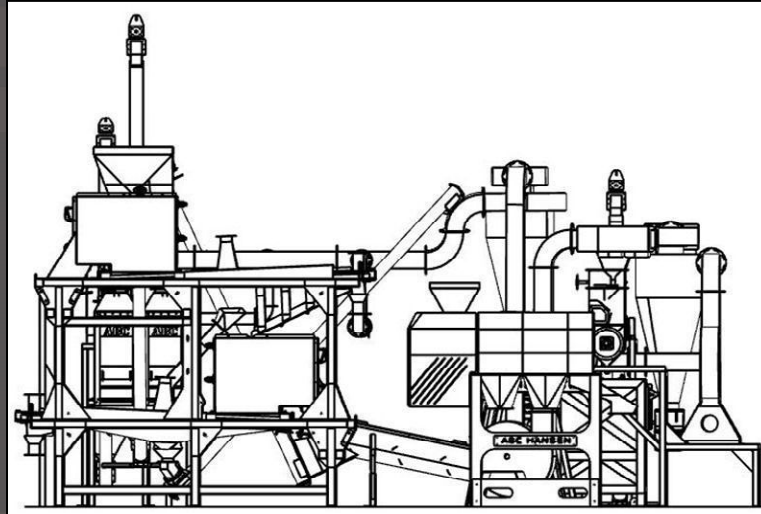
Side view 2 of 1.5TPH Super Maize Mill



Front View of 1.5TPH Super Maize Mill



Rear view of 1.5TPH Super Maize Mill



Hurricane Roller Mill – Quad Stand with eccentric sifters and vitamin doser



Model 1500 Degerminator with aspiration and germ meal separator



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Typical installation



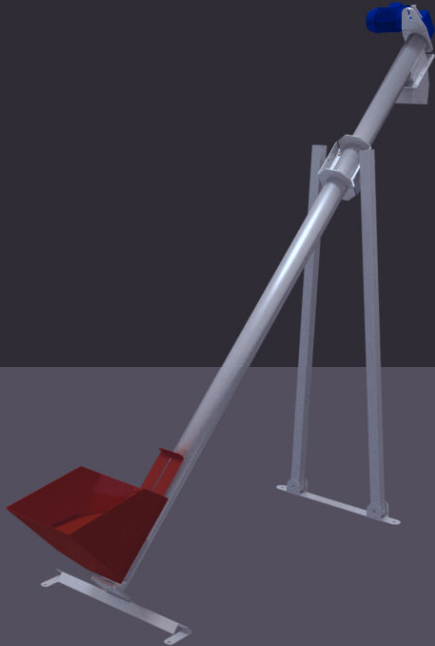
One of the advantages of the Hurricane system, is that it can be installed in a standard warehouse, with a minimum roof height of 4.5m – making the surrounding infrastructure for the mill much less expensive than multi-level milling plants



Because of the modular design of the Hurricane milling system, it can be installed in most buildings with a standard door and floor – a standard 3m x 3m door opening is large enough for installing all the equipment

Augers

CAC - Augers & Screw Conveyors



A screw conveyor or auger conveyor is a mechanism that uses a rotating helical screw blade, called a “flighting”, within a tube, to move granular materials. They are used in many bulk handling industries. Screw conveyors in modern industry are often used horizontally or at an incline of up to 90 degrees as an efficient way to move materials, including food waste, wood chips, aggregates, cereal grains, animal feed, boiler ash, meat and bone meal, flour, meal and many others. The first type of screw conveyor was the Archimedian screw, used since ancient times to pump irrigation water.

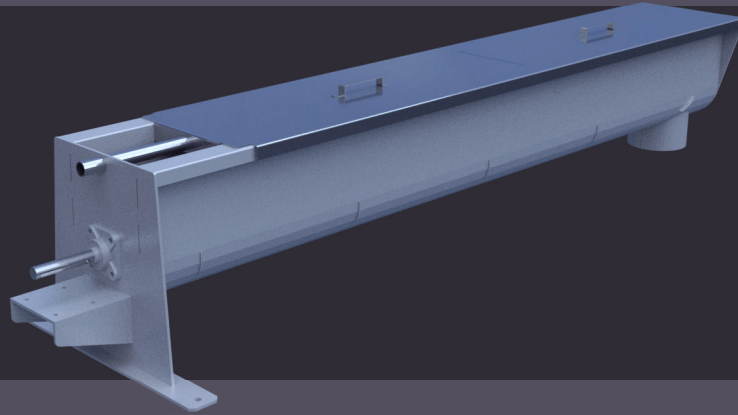
Two variants of the auger are produced by ABC Hansen Africa, the trough auger and the normal auger.

Trough augers are usually used when conveying material over longer distances, on a horizontal level, while normal augers are more applicable for shorter distances with inclines up to 90° inclines.

Power		1.1 KW - 7.5 KW 11 KW - 18.5 KW (reduction gearbox)					
Capacity		1 T - 200 T per hour					
Diameter		100 mm /165 mm /219 mm / 254 mm /275 mm /305 mm /355 mm/406 mm					
Length		3M - 30M					
Net weight		80 kg - 350 kg					
		0° incline		45° incline		90° incline	
Diameter	Auger speed	T/H	KW / meter	T/H	KW / meter	T/H	KW / meter
100 mm	300-900 rpm RPM	15	0.15	10	0.25	5	0.20
165 mm	600 RPM	40	0.25	30	0.39	15	0.32
203/219mm	450 RPM	55	0.34	40	0.57	25	0.44
254/273 mm	360 RPM	80	0.49	65	0.79	40	0.62
305 mm	300 RPM	110	0.62	90	0.98	50	0.79
355 mm	260 RPM	150	0.84	120	1.35	70	1.06
406 mm	225 RPM	200	1.08	160	1.75	90	1.38

Dampener

CDAMP 2.4



The Dampener is used for adding moisture into grain, specifically for the conditioning of grains before milling. Conditioning grain before milling allows for the easier removal of the husk and germ from the grain kernel which is important when producing a Super and Special quality maize meal, and when producing wheat flour.

The dampener has a trough carry section, and a paddled shaft which agitates the grain through the trough section.

At the entry end of the trough, 5 nozzles, connected to a dampener control system, sprays a calculated amount of water onto the grain, and the paddles gently massage the moisture into the grain, as they move the grain to the exit end of the dampener, allowing for maximum water penetration.

After dampening, the grain will typically enter a conditioning bin, where the grain will lay for between 1 and 24 hours (depending on the type of grain and process) before entering the next process in the milling line.

Specifications

Power	0.75 KW (reduction gear driven)
Capacity	1,000 kg - 5,000 kg per hour Capacity will depend on the required moisture content, and the type and quality of seed.
Length	2,400 mm
Width	620 mm
Height	670 mm
Net weight	168 kg

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Cleaner Quail I

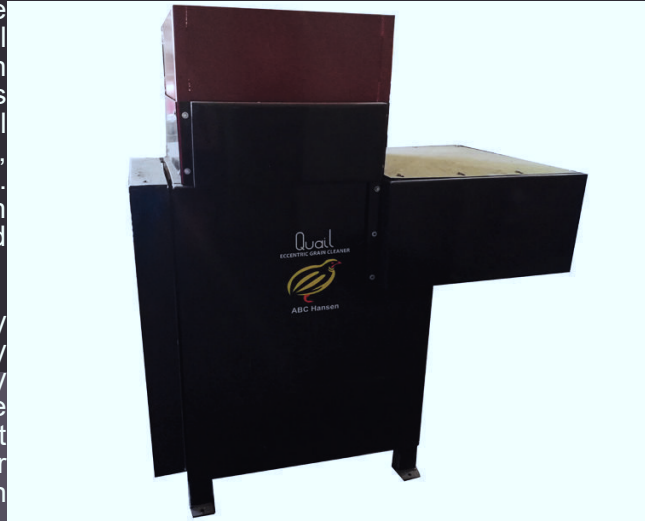
CLE05 - 1.5 - Quail I Eccentric Cleaner

The Quail I eccentric cleaner is a grading device used for the removal of most foreign material from the raw product being screened, based on size. The eccentric cleaner removes all particles that are larger or smaller than the raw material being cleaner, including particles such as metal, dust, stones, husk, and sand from the grain. The screening may be followed by an aspiration process whereby all light particles are removed through an air channel.

The Quail I Eccentric Cleaner has an easy to remove screen cartridge, making for easy replacement of damaged screens, and for easy switching between different grain types. The cleaning action is achieved when the product is agitated over the top screen, with the larger perforations, by means of an eccentric action on the cleaner body using eccentric drives

driven by fan belts. Oversized product flows over the screen and correct sized product passes through the screen onto the bottom screen with the smaller perforations. The under sized product then passed through the bottom screen, whilst the good product runs over the bottom screen. The over and undersized particles (trash) are discharged from the cleaner on the right hand side, and the good product is discharged at the front of the cleaner for easy bag-off or connection to the rest of the process line.

The Quail I is unique in that its intake doubles as product disperser prior to the product landing on the top screen for grading as well as a twine catcher, removing twine trash often clogging up grading and aspiration systems



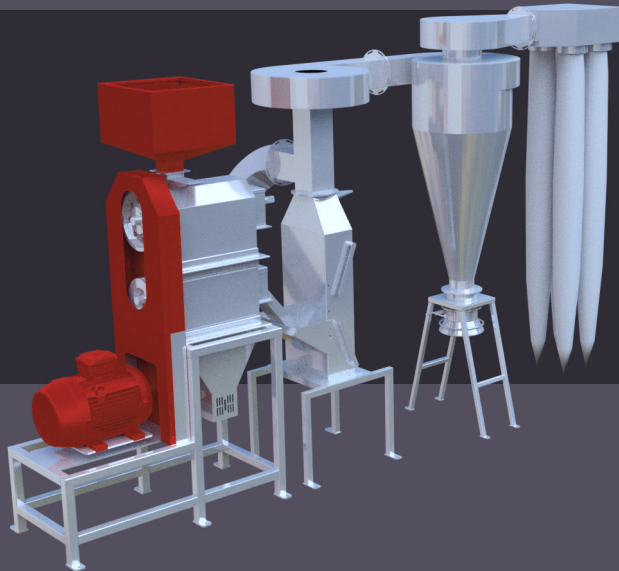
Specifications

Power	0.75 KW
Capacity	0.5 - 1.5 T/H
Length	1,340 mm
Width	720 mm
Total Screen area	6.125 m ²
Height	1,595 mm
Net weight	185 kg

Capacities of equipment is based on maize at 721 kg/m³ density, maximum 14% moisture and maximum 4% impurities. Capacities can vary depending on the size of the screens, impurity content and type and type of product. All capacities on equipment is based on free flowing product with angles of repose not more than 30°.

De-germinator 1500

SGD1500



The SGD1500 de-germinator has been designed to be used as a de-germinator for maize and to process conditioned maize into samp, maize chips, germ meal and bran. The machine is unique in that it incorporates a separator running off the same drive. There are 8 de-germing anvil plates of cast iron and with estimated 3- 5,000 ton processing life prior to replacement. All plates are easy to adjust from the outside of the machine by simply lowering the hinged side doors and adjusting the plates for a more or less aggressive action. The outlet door is adjustably spring loaded to allow for longer or shorter retention of maize in the machine. This would depend on the hardness of the maize kernel as well as the extent of processing required. Optionally supplied are two leg aspirators with a 3 kW extraction fan, cyclone, ducting and litter bags where the samp and bran from the de-germinator is separated in one aspiration leg while the chips

and bran is separated in another aspiration leg. The germ meal and fine bran is screened out with the turbo sifter included as part of the machine. This robust machine has also found application in de-hulling soy beans prior to extrusion, to a capacity in excess of 1.5 tons per hour. Approximately 1,200 - 1,500 kg per hour

Spare parts & Consumables:

Bearings
V-belts
Anvil plates
Sifter screens
Sifter paddles

Three discharges germ meal, samp, chips. Aspiration recommended for separating bran from samp and chips. Aspiration not included and must be quoted additionally.

Dynamically balanced rotor
Easily changeable screens - screens size standard 4 - 6mm
Enclosed dust free unit with Turbo sifter (2 - 3mm) below
De-germinator to separate germ meal
Technical specifications may be altered without notice. All capacities

FEATURES:

- Horizontal design, comprising of:-
- Fully enclosed, dust free operation
- Dynamically balanced rotor
- Easy exchangeable anvil plates - long life
- Easily exchangeable screens
- Single motor drives both machines
- Low power consumption - 14 Amps
- Guarantees low fat and fibre
- Throughput 1.0 to 1.5 t/h Maize

Size of Intake:	100 mm Dia. Hopper Optional
Size of Outlets:	100 mm Dia
Number of anvil plates:	8
Length:	1320mm
Width:	588mm
Height:	2800mm
Mass:	556kg
Motor size:	18.5 kW
Mount:	(Foot / Flange)
Rpm:	1450 RPM

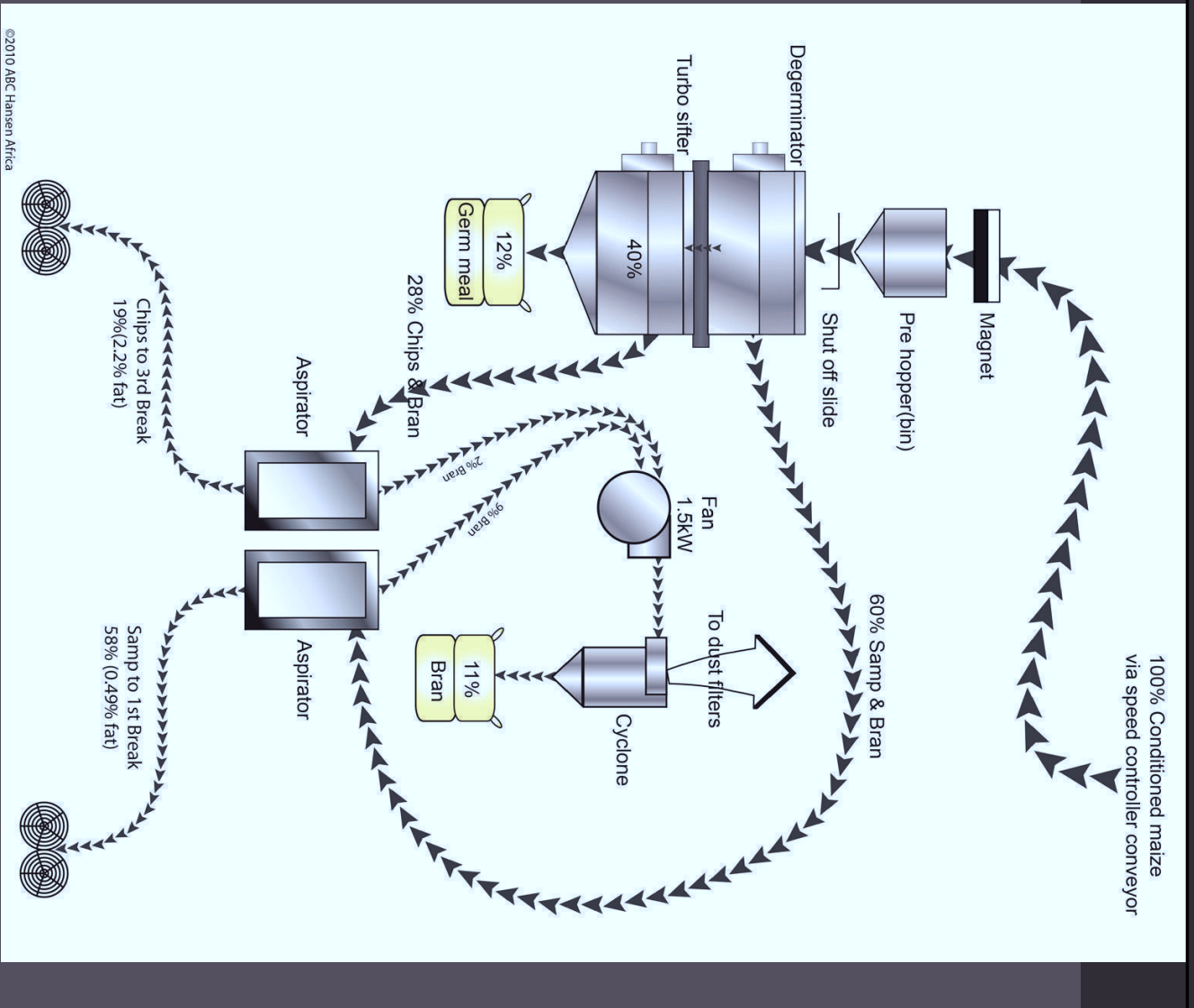
All motors are 3 phase 380 V Volt, 50 Hz unless otherwise indicated

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De-germinator 1500

SGD1500 - Diagram

Maize Degermination System
with approximate yields o hard WM1 maize
Capacity: 1.2 - 1.5 t/h
Power: 18.5kw



Motor Control & Automation

Electric Switchgear & Cable

All our electrical panels are built in house by qualified electricians, according to South African National Accreditation System (SANAS, old SABS) specifications, and only SANAS approved electrical cabling is supplied to customers.

High quality switchgear is used by ABC Hansen Africa when building panels, and special care is taken with each panel's destination to ensure that the panel components are supported in the country that the panel is being sold into.



Typical panel component manufacturers used by ABC Hansen Africa are Allan Bradley, Siemens and Telemechanique, amongst others.

VFD

VFD Benefits

As one of the main advantages of using a VFD is the energy cost savings associated with speed control. When using belts, sheaves, or gearboxes to reduce speed, the motor still runs at full speed; however, a VFD reduces the actual motor speed, which reduces the amps



drawn by the motor. This reduces the amount of energy used—and saves you energy costs. By ramping up the motor speed slowly, VFDs also help customers save energy by reducing the in-rush and mechanical issues associated with starting motors across the line.

VFDs and Savings

The first and most obvious way a VFD can save you money is through increasing the efficiency of your AC motors and decreasing electricity use. The amount of energy that a VFD can save depends on the average load of the motor and the number of hours per day it is turned on.

While average energy savings varies, it's safe to say that most AC motors do not need to be running at full capacity for most hours of their use. Furthermore, the initial cost of a motor or VFD is generally only a fraction of the cost of operating the motor over its life span. This means that a VFD system usually pays for itself in a matter of months or years.

The University of Wisconsin-La Crosse has this example:

Consider a 25-horsepower fan motor operating for 23 hours a day. It's unlikely the fan needs to run at full capacity for the full 23 hours. If the unit runs at full capacity for two hours, 75-percent capacity for eight hours, 67 percent for eight hours, and 50 percent for five hours, a VFD would reduce energy use by 32 percent.

The other way that a VFD can save you money is through extending the life of your motor. VFDs decrease the fluid flow into an AC motor, which in turn decreases the pressure and friction on the valves and other machinery inside the motor. By running at a reduced capacity, you will also help reduce the wear and tear on your motor.

Mill Roller

MRH500 - Hurricane roller mill

ABC Hansen Africa manufactures a full range of roller mills as part of its milling and processing range of equipment.

The Hurricane roller mill is a roller mill, based on a roller with a 500mm width and a 250mm diameter. Rolls are spin casted from high strength alloys, and are fluted to customer specifications, depending on the product and quality of the desired end result.

Three different combinations are available on the machine.

- The double roller or two stage - which has 2 pairs of rollers with or without an integrated single eccentric sifter.
- The triple roller or three stage - which has 3 pairs of rollers with or without an integrated double eccentric sifter
- The quad roller or four stages - which has 4 pairs of rollers with an integrated double eccentric sifter.

The integrated eccentric sifters can be used as an preliminary split for taking off different grades of meal/flour, as well as removing bran, reducing the strain on the final sifting process. The roller mills are, as a rule included in super maize mill plants, as well as in all wheat mills, as the roller mill provides an even milling process, with very little fines/unders, when compared to for example hammer mills, thus giving a better yield between for example Super quality and Special quality maize meal. The roller mill can also be used for milling raw maize, as the eccentric sifter will screen out most of the bran in the meal, producing a better, whiter product than a straight run maize meal through a hammer mill.



	Double Stand	Triple Stand	Quad Stand
Capacity (T/h)	550 kg/hr	800kg/hr	1100kg/hr
Height	2,315mm	3,115mm	3600mm
Width	1310mm	1310mm	1310mm
Length	3400mm	3400mm	3400mm
Weight	1,100kg	1,550kg	2,100kg
No of rolls	4	6	8
Size of rolls	500mm length, 250mm diameter		
Standard fluting	Degerminated maize: 14 FPI, 16 FPI, 18 FPI Non-degerminated maize: 12 FPI, 16 FPI, 18 FPI		
Power required	18 KW	27 KW	36 KW
Materials	Painted mild steel construction		

Sifter Rotary

SIRC - Rotary sifter



The rotary sifter is used for separating and grading milled and raw products, based on their particle size. The rotary sifter has a cylindrical frame around which two different sizes special nylon or special stainless steel screens are fitted with brush agitators inside the screen housing. Typically the screen housing will have 2 sizes of screens, to allow for 3 separations on the product being fed over the 800mm long sifting barrel. Two of the three grades are discharged directly below the machine and the third to the far side of the machine from where it is either bagged off, or transported with a conveyance system.

The rotary sifter is a versatile and simple sifter allowing for fast screen changes, takes up small space and is highly efficient especially for artisanal milling plants.

Specifications

Power	4 KW
Capacity	500kg-700kg/hr
	Capacity dependant on moisture content, grain quality and extraction rate, and required particle sizes, as well as grain type.
Length	1,750mm
Width	582mm
Height	1,400mm
Net weight	340kg

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Bag Closing Machine

SUBSN600H - Collins 2500

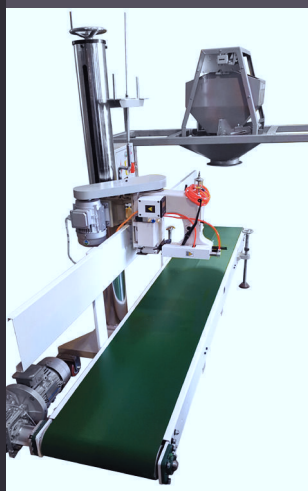


This high quality bag closing machine has a steel cam and is made to last, while still being reasonable priced. Designed for continuous operation, the single thread chain stitch can be used for agriculture products, animal feeds, fertilizer, flour, chemicals, pellets and other powdered materials. This versatile bagger also sews on horizontal surfaces and can be used to join two fabrics. The bag stitcher is fitted with a plastic handle for insulation and it features an oil pump lubrication system with oil lines, to ensure an extended lifetime.

Specifications

Power source	220 V
Capacity	UP TO 250 BAGS PER HOUR
Stitch	7.2mm
Needle	DN x 1 #25
Net weight	6.1kg
Thread	Single thread stitch
Automatic thread cutter	

Bag Stitcher - Collins GK35



Model Number: GK35
Stitch Formation: Chain Stitch
Mechanical Configuration: Flat-Bed
Max. Sewing Speed: 2000 r.p.m
Max. Sewing Thickness: 11mm
Stitch Length: 6.5mm-11mm
Power: 370 W
Feed Mechanism: Drop Feed
Certification: ISO9001
Type: Bag closer sewing type
Foot switch travel: 16mm
Thread Chain Cutter: Mechanical
Stitch Type: Single needle double thread chain stitch
Application: Chemical/Agricultural
Automatic Grade: Semi-Automatic
Needle: UY9848G, UY9856T
Weight: 27kg/30kg

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ABC Hansen Africa (Pty) Ltd and ABC Africa Group **Standard Terms and Conditions of Sale**

1. The Customer agrees that (a) this Agreement represents the entire Agreement between the Customer and ABC Hansen Africa(Pty)Ltd and associated companies (hereinafter called ABC Hansen) and should be read with the "General Terms and Conditions of Trade Specifically Related to Contract Work" that shall also apply under relevant circumstances, that no alterations or additions to this Agreement may be effected unless agreed to by both parties, reduced to writing and signed by the Customer and a duly authorised representative of ABC Hansen Africa, (b) this Agreement will govern all future contractual relationships between the parties; (c) this Agreement is applicable to all existing debts between the parties; (d) this Agreement is final and binding and is not subject to any suspensive or dissolutive conditions; (e) any conflicting conditions stipulated by the Customer are expressly excluded; (f) these terms supersede all previous conditions without prejudice to any securities or guarantees held by ABC Hansen Africa and (g) these terms apply to all servants and subcontractors of ABC Hansen.

2. This Agreement only becomes final and binding on receipt of the acceptance by ABC Hansen at its business address in 216 Propshaft Road Samcor Park x1, Pretoria.

3. The signatory hereby binds himself / herself in his / her personal capacity as Director (in the case of a company), Member (in the case of close corporations) or Owner or Partner as co-debtor jointly and severally for the full amount due to ABC Hansen and agrees that these Standard Conditions will apply mutatis mutandis to him / her.

4. The Customer acknowledges that it does not rely on any representations made by ABC Hansen in regard to the goods and services or any of its qualities leading up to this Agreement other than those contained in this Agreement. All specifications, price lists, performance figures, advertisements, brochures and other technical data furnished by ABC Hansen Africa in respect of the goods or services orally or in writing will not form part of the Agreement in any way unless agreed to in writing by ABC Hansen Africa.

5.1 The Customer agrees that neither ABC Hansen nor any of its employees will be liable for any negligent or innocent misrepresentations made to the Customer.

5.2 It is the sole responsibility of the Customer to determine that the goods or services ordered are suitable for the purposes of intended use. If goods are returned for any reason whatsoever, a 15% handling fee may be charged by ABC Hansen entirely at its own discretion plus delivery or collection charges.

5.3 The Customer agrees to pay all costs resulting from any acts or omission of the Customer including suspension of work, modification of requirements, failure or delay in giving particular requisite to enable work to proceed on schedule or requirements that work be completed earlier than agreed.

5.4 ABC Hansen reserves the right at its sole discretion to provide alternative products to those ordered by the Customer should said equipment manufacture be superseded, replaced or terminated.

6.1 All quotes will remain valid for a period of 14 days from the date of the quote unless otherwise indicated.

6.2 All quotes are subject to the availability of the goods or services and subject to correction of bona fide errors by ABC Hansen ; and the prices quoted are subject to any increases in the cost price, including currency fluctuations, of ABC Hansen before acceptance of the order.

6.3 The amount of the increase shall be certified by any independent auditor and such certificate shall be final and binding on the Customer.

6.4 The Customer hereby confirms that the goods or services on the Tax Invoice issued duly represent the goods or services ordered by the Customer at the prices agreed to by the Customer and, where delivery / performance has already taken place, that the goods or services were inspected and that the Customer is satisfied that these conform in all respects to the quality and quantity ordered and are free from any defects.

6.5 Notwithstanding the provisions of section 1 above, all orders or variations to orders, whether oral or in writing, shall be binding and subject to these standard conditions of agreement and may not be cancelled.

6.6 ABC Hansen shall be entitled in its sole discretion to split the delivery / performance of the goods or services ordered in the quantities and on the dates it decides.

6.7 ABC Hansen shall be entitled to invoice each delivery / performance actually made separately.

6.8 Any delivery note or waybill (copy or original) signed by the Customer or a third party engaged to transport the goods and held by ABC Hansen Africa shall be conclusive proof that delivery was made to the Customer.

6.9 The risk of damage to, destruction or theft of goods shall pass to the Customer on conclusion of the agreement of sale after any installation has been completed if applicable. ABC Hansen shall provide site insurance until the installation of sold equipment has been completed in substance.

6.10 Delivery, installation and performance times given are merely estimates and are not binding on ABC Hansen .

6.11 If ABC Hansen agrees to engage a third party to transport the goods, ABC Hansen is hereby authorised to engage a third party on the Customer's behalf and on the terms deemed fit by ABC Hansen

6.12 The Customer indemnifies ABC Hansen against any claims that may arise from such agreement in clause

6.11 against ABC Hansen. If ABC Hansen does arrange the transport, it will also arrange insurance on said shipment.

6.13 Repair times and repair costs given are merely estimates and are not binding on ABC Hansen

6.14 Any item handed in for repair may be sold by ABC Hansen to defray the cost of such repairs if the item remains uncollected within 30 days of the repairs being completed.

6.15 All goods taken on a consignment basis by the Customer are deemed sold if not returned within 60 days of issue in a perfect condition, in the original packaging

6.16 The Customer acknowledges all copyrights and shall not duplicate copyrighted material and that each attempt shall immediately render the full prevailing price payable to ABC Hansen Africa.

6.17 The Customer shall indemnify ABC Hansen against any claims, costs and expenses arising out of the infringement of copyright, patent, trade mark or design.

7.1 New equipment is guaranteed according to the Manufacturer's product specific warranties only and consumables are sold voetstoots with no guarantee against latent defects and all other guarantees including common law guarantees are hereby specifically excluded. Services carry no guarantee.

7.2 Liability under Clause 7.1 is restricted to the cost of repair or replacement of faulty goods or services or granting of a credit at the sole discretion of ABC Hansen .

7.3 No claim under this Agreement shall arise unless the Customer has, within 2 days of the alleged breach or defect occurring, given ABC Hansen 30 days written notice by prepaid registered post to rectify any defect or breach of Agreement.

7.4 To be valid, claims must be supported by the original Tax Invoice.

7.5 All guarantees are immediately null and void should any goods be tampered with or should the seals on goods be broken by anyone other than ABC Hansen or should the goods be operated or stored outside the Manufacturer's specifications.

7.6 Any item delivered to ABC Hansen shall serve as a pledge in favour of ABC Hansen for present and past debts and ABC Hansen shall be entitled to retain or realise such pledges as it deems expedient at the value as determined in 15.1. The sworn or realised value of pledged goods will be offset against the Customer's debts and any remaining balance will be paid to the Customer.

8.1 Under no circumstances shall ABC Hansen be liable for any consequential damages or for any delictual liability of any nature whatsoever.

8.2 Under no circumstances shall ABC Hansen be liable for any damage arising from any misuse or abuse of the goods.

9. Delivery of the goods to the Customer shall take place at the place of business of ABC Hansen .

10.1 The Customer agrees that the amount contained in a Tax Invoice issued by ABC Hansen shall be due unconditionally (a) cash on order; or (b) if the Customer is a Credit Approved Customer, within 7 days from the 25th day of the month in which a Tax Invoice has been issued by ABC Hansen .

10.2 The Customer agrees to pay the amount on the Tax Invoice at the offices of ABC Hansen

10.3 The risk of payment by cheque through the post rests with the Customer.

11.1 The Customer has no right to withhold payment for any reason whatsoever and agrees that no extension of payment of any nature shall be extended to the Customer and any such extension will not be applicable or enforceable unless agreed to by ABC Hansen, reduced to writing and signed by the Customer and a duly authorised representative of ABC Hansen .

11.2 The Customer is not entitled to set off any amount due to the Customer by ABC Hansen Africa against this debt.

11.3 All discounts shall be forfeited if payment in full is not made on the due date.

12.1 The Customer agrees that the amount due and payable to ABC Hansen may be determined and proven by a certificate issued and signed by any independent auditor. Such certificate shall be binding and shall be prima facie proof of the indebtedness of the Customer.

12.2 Any printout of computer evidence tendered by any party shall be admissible evidence and no party shall object to the admissibility of such evidence purely on grounds that such evidence is computer evidence or that the requirements of the Computer Evidence Act have not been met.

13.1 The Customer agrees that interest shall be payable on any moneys due to ABC Hansen at the maximum legal interest rate prescribed in terms of the National Credit Act, from the date it falls due. In the case of late payment interest shall be calculated from the date of order

13.2 The Customer expressly agrees that no debt owed to ABC Hansen by the Customer shall become prescribed before the passing of a period of ten years from the date the debt falls due.

14.1 The Customer agrees that if an account is not settled in full (a) against order; or (b) within the period agreed in clause 10.1 above in the case of a Credit Approved Customer; ABC Hansen is: (i) entitled to immediately institute action against the Customer at the sole expense of the Customer; or (ii) to cancel the agreement and take possession of any goods delivered to the Customer and claim damages. These remedies are without prejudice to any other right ABC Hansen may be entitled to in terms of this agreement or in law.

14.2 A Credit Approved Customer will forthwith lose this approval when payment is not made according to the conditions of 10.1(b).

15.1 In the event of cancellation, the Customer shall be liable to pay (a) the difference between the selling price and the value of the goods at the time of repossession and (b) all other costs incurred in the repossession of the goods. The value of repossessed or retained pledged goods shall be deemed to be the value placed on them by any sworn valuator after such repossession, and such valuation shall be conclusive proof of the value. If the goods are not recovered for any reason whatsoever, the value shall be deemed to be nil.

15.2 The Customer irrevocably authorises ABC Hansen to enter its premises to repossess any goods delivered and indemnifies ABC Hansen completely against any damage whatsoever relating to the removal of repossessed goods.

15.3 In the event of cancellation ABC Hansen is entitled not to produce any unmade balance of a contract and to recover any loss sustained thereby from the Customer.

16.1 All goods supplied by ABC Hansen remain the property of ABC Hansen until such goods have been fully paid for whether such goods are attached to other property or not.

16.2 The Customer is not entitled to sell or dispose of any goods unpaid for without the prior written consent of ABC Hansen .

16.3 If any goods supplied to the Customer are of a generic nature and have become the property of the customer by operation of law (confusio or commixtio) the Customer shall be obliged on notice of cancellation of the agreement to retransfer the same quantity of goods in ownership to ABC Hansen .

16.4 The Customer agrees to accept any quantity that does not exceed or fall short of the quantity ordered by more than 5% by weight as good and complete performance and may request ABC Hansen to pay only the pro rata contract price for the actual quantity dispatched which request will not be unreasonably withheld.

17.1 In the event that ABC Hansen takes any legal steps, of whatsoever nature, against the Customer, for the enforcement of any of the terms and / or conditions of this Agreement, or for the enforcement of any of ABC Hansen's rights (including without limitation claims) in terms hereof, the Customer shall be liable for and be obliged to pay to ABC Hansen, all legal expenses incurred by ABC Hansen, on the attorney-and-own client scale, . The Customer shall also be liable for any tracing, collection or valuation fees incurred as well as for any costs, including stamp duties, for any form of security that ABC Hansen may demand.

17.2 The Customer shall pay three thousand Rand into court or furnish sufficient security in lieu of costs in any action instituted by or against the Customer.

17.3 The Customer agrees that ABC Hansen will not be required to furnish security in terms of Rule 62 of the Rules of Court of the Magistrate's Courts or in terms of Rule 47 of the Law of the Supreme Court 59 of 1959.

18. The Customer agrees that no indulgence whatsoever by ABC Hansen will affect the terms of this agreement or any of the rights of ABC Hansen and such indulgence shall not constitute a waiver by ABC Hansen Africa in respect of any of its rights herein. Under no circumstances will ABC Hansen Africa be stopped from exercising any of its rights in terms of this Agreement.

19. The parties agree and consent to the non-exclusive jurisdiction of the High Court of South Africa, Gauteng Division, Pretoria, situated in Pretoria, Gauteng Province, Republic of South Africa, for the resolution of any and all disputes by and between the parties relating hereto. Despite the aforesaid, the parties shall be entitled to institute proceedings in a competent Court having jurisdiction.

20.1 Any document shall be deemed duly presented to the Customer within (i) 3 days of prepaid registered mail to any of the Customer's business or postal addresses or to the personal address of any director, member or owner of the Customer; or (ii) within 24 hours of being faxed to any of the Customer's fax numbers or any director, member's or owner's fax numbers; (iii) on being delivered by hand to the Customer or any director, member or owner of the Customer; (iv) within 48 hours if sent by overnight courier; or (v) within 24 hours of being telexed to the Customer's telex number.

20.2 The Customer chooses domicilium citandi et executandi at the business address or the physical addresses of any Director (in the case of a company), Member (in the case of close corporations) or of the Owner(s) or Partner(s).

20.3 The Customer undertakes to inform ABC Hansen in writing within 7 days of any change of Director, Member, Shareholder, Owner or Partner or address or 14 days prior to selling or alienating the Customer's business and failure to do so will constitute a material breach of this agreement.

20.4 The Customer hereby consents to the storage and use by ABC Hansen of the personal information that it has provided to ABC Hansen Africa for establishing its credit rating and to ABC Hansen disclosing such information to credit control companies, banks and other institutions involved in rating credit. The Customer agrees that ABC Hansen Africa will not be held liable for the bona fide disclosure of any of this information to such a third party and that no further specific consent need to be obtained for the transfer of such information to a specific third party.

21. The Customer agrees to the Standard Rates of ABC Hansen for any goods or services rendered, which rates may be obtained on request.

22. The invalidity of any part of this Agreement shall not affect the validity of any other part.

23. Any order is subject to cancellation by ABC Hansen due to force majeure or inability to deliver from any cause beyond the control of ABC Hansen, including (without restricting this clause to these instances): inability to secure labour, power, materials or supplies, or by reason of an act of God, war, theft, hi-jacking, civil disturbance, riot, state of emergency, strike, lockout, or other labour disputes, fire, flood, drought or legislation.

24. Any order is subject to cancellation if the Customer breaches any term of this Agreement or makes any attempt of compromise, liquidation, sequestration, termination or judgement is recorded against the Customer or any of its principals.

25. The Customer agrees that ABC Hansen will be immediately and irrevocably released from any contractual damages and penalty obligations should any event in clause 23 or 24 occur.

26. Where products are to be manufactured to the specification of the Purchaser, such orders are accepted by ABC Hansen subject to the implied assurance by the Purchaser that no patent or trade mark or registered design will be infringed in the manufacture of the products and upon the condition that the Purchaser shall indemnify ABC Hansen for all expenses and/or loss incurred by or claims brought against ABC Hansen in consequence of any such infringement. Goods manufactured by ABC Hansen to Purchasers, drawings and specifications are manufactured at the sole risk of the Purchaser. No responsibility is taken for efficiency, safety, workability or suitability of such products.

If the execution of the contract is delayed in any way or cancelled through the fault of the Purchaser, the Purchaser shall be liable for any expenses costs, losses, injuries or damages incurred or suffered by ABC Hansen. A cancellation fee of a maximum 20% may be imposed without substantiation of costs, losses or damages.

27. The parties agree that this Agreement and its interpretation is subject to the laws of the Republic of South Africa, which shall *inter alia* apply to any and all disputes by and between the parties relating hereto.

28. ABC Hansen retains the right to increase the contract price due to unforeseen increases in costs of steel in accordance with the SEIFSA index of steel cost. This clause shall not be called for if the increase is below 5% during the period between order and delivery and the Purchaser shall pay such increased cost on demand. The final selling price shall increase by 1% for every 2% increase in the index.

29. No equipment shall be delivered until fully paid for.

30. No installation on site shall commence until all equipment delivered is fully paid for. If not fully paid for as required, installation may be postponed to any time when the installation crew is available again in the sole discretion of ABC Hansen

Buyer signature

Buyers Name

Company name

Capacity

ABC HANSEN AFRICA(PTY)LTD
GENERAL TERMS AND CONDITIONS OF TRADE SPECIFICALLY RELATED TO CONTRACT WORK
(ADDITIONAL TO THE STANDARD TERMS AND CONDITIONS OF SALE OF ABC HANSEN AFRICA – hereafter called ABC Hansen)

The following items are excluded from any quotation in respect of installation of plants, silos and civil works:

- All cover plates and additional steelwork not quoted as part of the supply, is excluded.
- All civil works are excluded unless specifically included such as concrete slabs, pit for bucket elevator reception, water provision, all work to the mains electrical system or connection of the electric panel to the main electric supply. Main isolator between mains power supply and plant control panel is excluded. Sufficient electric power should be available free of charge for the duration of the installation. The capacity of the cable feeding to the plant control panel should be determined by the buyer's electrician and adequately installed. The buyer's electrician should be able to issue an acceptable electrical certificate for the plant's electrical installation outside the borders of South Africa and for his part of the work inside the borders of South Africa should the seller undertake electrical installation of the plant.
- Digging, masonry assistance, foundations are excluded unless specifically included.
- Complete installation is included if quoted specifically however any work required outside the scope of actual plant installation shall be billed.
- Commissioning, if specifically included, shall comprise the operation of the plant of three days at eight hours per day with the commissioning crew unless specifically otherwise described. In respect of silo plants, one x eight hour shift intake or out load or part thereof shall comprise complete commissioning. Sufficient qualified personnel must be available during commissioning and training. In the case of milling, a qualified or experienced or trainable miller must be on site and available for training. At least one experienced machine operator and one experienced maintenance technician must likewise be available for training.
- Transport to the site is excluded unless quoted. All local transport of plant, equipment and staff are excluded. International airfares are excluded where applicable.
- The building should be completed and according to specification. Projecting, delivery and construction of any part of the building is excluded.
- Discharge of goods from delivery vehicle to installation is excluded. In the case of silos, a forklift or similar lifting machine must be provided by the buyer at his cost.
- Board and lodging for our personnel where the site is further than 150km away from Pretoria is excluded. Where air transport of personnel is required, two return airfares for the installation personnel is excluded. Where the contract runs over more than 30 days, two return tickets every 30 days is payable by the buyer. The number of personnel would be dependent on the size and complexity of the plant. Secure camp sites with ablution and clean water to be supplied by the buyer in respect of civil works or installation in remote areas within South Africa and countries directly neighbouring the borders of South Africa. In other remote areas, the buyer should arrange all adequate camping facilities including cooking and ablution. The Buyer shall provide suitable and acceptable accommodation at his cost to the Seller's site supervisor and Chief Artisan in a hotel or guest house as close as possible to the site. Lodging at the site with the Buyers staff or Buyer may be acceptable at the choice of the Buyer and the Site Supervisor / Chief Artisan.
- Local assistance and menial labor for duration of the installation and commissioning should be provided and paid for by the buyer. The seller accepts no responsibility or liability for injury with regards to any worker not part of the seller's own installation team.
- A qualified and experienced welder/boilermaker and local electrician must be available on site at all times during installation for installations outside the borders of South Africa.
- Erection tool box is excluded in respect of all installations outside the borders of South Africa. If the buyer does not have sufficient tools this shall be supplied with the plant and must be paid for prior to shipment.
- Erection equipment such as: cranes, hoists, lifting equipment, fork lifts etc. is excluded.
- In respect of civil works quoted: Earth moving equipment, jack hammers, dynamite if required is excluded. Suitable sand & stone (19 mm) certified, and bricks are excluded unless specifically quoted. Cement is excluded for all civil works unless otherwise specified. Cement strength certified at 32.5 is required.
- Water control for excessive rain or surface water, roads or infrastructure, leveling of area, removal of rubble is excluded from all civil works quotes.
- No responsibility as to suitability, strength, dimensions or otherwise is accepted with regards to foundations laid without the supervision of the company.
- In respect of civil works, the buyer shall ensure that all soil bearing tests are performed and a geological report obtained. Should these tests require additional specifications to foundations, such costs is excluded from any quotation and would be payable by the buyer, including redesign and all additional cost. Should the buyer elect not to perform such geological tests, or to deviate in any way from engineers design and specifications, the seller would not be liable for damage to such foundations due to such geological defects and the Buyer herewith accepts full responsibility.
- Where the seller supplies supervisory services in respect of civil works, no risk in respect of the design of the foundation is accepted. Where the buyer makes any change to the suggested or engineer's design it is entirely at his own risk. Supervision shall entail arranging for geo-technical tests, regular inspection of the site during ground works, marking and measuring of the site, ensuring the engineer's design is followed,

establishment of levels, presence at concrete pouring, ensuring concrete strength is certified. The supervisor does not have any authority over the buyer's personnel and can merely point out problems and suggest alternatives. No risk is accepted for failure of such works through negligence or non-performance of the buyer or his personnel.

- All customs duties, insurance cover (also in respect of liability for assistants during installation), allowances, authorizations, documents, commissions and other relative items are excluded. Insurance to be provided by client once equipment is delivered ex factory Pretoria whether transported by ABC Hansen or not. The risk shall pass to the buyer on delivery of the goods ex factory, Pretoria.
- Other exclusions:
 - Lighting plant.
 - Air quality plant.
 - Fire fighting plant.
 - Lightning rod installation.
 - Lubrication of any kind.
 - Cereals for plant operation. If cereals are not available at commissioning, an additional charge shall be levied for transport of personnel back to the site when cereals are available.
 - Custody of the site before, during and after erection.
 - Any equipment or service not described.
 - Power to the site during and for installation.
 - Crane hire.
- Should the seller's personnel be prevented, for whatever reason, to complete installation or commissioning, all monies due to the seller shall become payable within 30 days of the installation crew having vacated the plant, whether the plant has been installed then or not. Additional fees in respect of waiting time incurred as well as traveling, shall be levied and would be payable by the buyer prior to the installation team's return to the site.
- Foundation detail, if furnished is general in nature and intended as a guide only. It is the buyers responsibility to provide an adequate site and foundation design for adequate support of the silo. ABC Hansen assumes no responsibility whatsoever for result arising from these suggestions.
- Warranty: ABC Hansen 's only obligation is to repair or replace defective parts or equipment on a prepaid basis within 12 months after retail sale and in its opinion found to be defective due to poor workmanship. If defective the product will be repaired or replaced without charge ex factory Pretoria, this constituting and fulfilling its warranty obligation. Expenses incurred without authorization of ABC Hansen, shall be the sole responsibility of the buyer. Under no circumstances will ABC Hansen be liable for any kind of special or consequential damages nor will the liability ever exceed the price of the product.
- Ownership: Will only pass once payment has been received in full.
- Prices are quoted ex factory Pretoria (unless otherwise quoted)
- Delivery, installation and performance times are merely estimates and are not binding on ABC Hansen.
- The country of jurisdiction in respect of a dispute would be South Africa and the magisterial district would be Pretoria, wherever the location of the buyer or wherever an offer has been accepted last.
- Quotes are valid for a maximum period of 14 days unless otherwise specified.
- In the case of second hand equipment installed on behalf of a customer, no warranty whatsoever shall apply.
- Installation shall not commence unless equipment is fully paid for. Upon ABC Hansen's advice that the shipment would be delivered on a certain date, payment should be made in full to avoid delays. Should equipment not be fully paid for, ABC Hansen may reschedule installation at its sole discretion. It is also within ABC Hansen's rights not to discharge a vehicle if the goods are not paid for or to reroute a delivery to another site if the goods are not paid for. Any charges for standing time shall be paid for by the buyer if such delays are due to his non-performance.
- In the case of second hand equipment installed on behalf of a customer, no warranty whatsoever shall apply.
- In the case of weighbridges:
 - Foundations must be done to drawing & specification. Should this be off-spec, an additional charge will be incurred as would unreasonable idle crane time.
 - The bridge must be properly earthed at less than 5Ω.
 - Clean power is required without dips or surges. Lighting and power surges is excluded from any warranty.
- It would be deemed that the buyer has read and understood the contents of these conditions and concurs with it upon acceptance by the buyer of any offer made by the seller.
- While silos are sealed after installation, subsequent sealing following loading of silo, may be required and is the buyer's responsibility. Silos should be resealed regularly and only the first sealing is included as part of installation. Where foundations are uneven, allowing for large gaps, an additional sealing charge may be levied.
- It would be deemed that the buyer has read and understood the contents of these conditions and concurs with it upon acceptance by the buyer of any offer made by the seller.

Buyers Name and Signature