## DARMANI LIMITED WARRANTY

DARMANI warrants products that it HAS manufactured and/or that are branded with its name (the "goods") subject to the following terms and limitations, (the "warranty"):

**IMPORTANT NOTE:** All products that are sold by DARMANI but NOT Manufactured by Darmani are covered by the manufactures warranty -see link to their website for more warranty details. (See chart below)

**1. Duration of Warranty.** The duration of the warranty is limited as follows:

	, , , , , , , , , , , , , , , , , , , ,	
PRODUCT	Manfactured by:	LIMITED WARRANTY PERIOD
Flat bottom Galvanized bins	DARMANI	60 months
Hopper mount Galvanized bins	DARMANI	60 months
Diamond G-series cones	DARMANI	60 months
Steel bin floors	DARMANI	120 months
Swing Air-H- Series	DARMANI	12 months
Cross Air	DARMANI	12 months
V-Air	DARMANI	12 months
H-Unload	DARMANI	12 months
SKYLIFT	DARMANI	12 months
Aeration Fans	S3 Manufacuturing	24 months
Temp/Moisture cables/monitor	Opi-blue	www.advancegrainmanagement.com

The duration of the warranty will run from the date of purchase from the customer from a authorized DARMANI representative (the "warranty period").

- 2. <u>Limitation of Remedies Replacement</u>. Within the warranty period, DARMANI will replace the goods and/or original manufactured components thereof which are found, to DARMANI's satisfaction, to be defective. Darmani is not responsible for direct, indirect, special, consequential, or any other damages of any kind, including personal injury to any individual, howsoever caused, including caused by transportation of the goods for repair or replacement.
- 3. **Procedure for Obtaining Service.** In the event of a warranty claim, the purchaser must complete any and all information required by DARMANI in order to properly assess or investigate the claim. DARMANI will not be responsible for the removal of any of the goods found to be defective, or transportation charges to and from the customer's location, or for installation of any replacement goods and/or parts furnished under the warranty.
- 4. **<u>Limitations as to Scope of Warranty.</u>** The warranty does not extend to defects or damage caused, in whole or in part, by:
- A. use of a kind and/or to a degree not reasonably expected to be made of the goods;
- B. improper storage of the goods both prior to and after purchase;
- C. damage caused by, or in the course of, installation or assembly;
- D. any use of the goods which is not an intended use as specified in DARMANI'S published product literature
- E. any equipment attached to or used in conjunction with the goods;
- F. any field modifications or substitutions to original bin components;
- G. inadequate ventilation or any other circumstance not in keeping with proper maintenance and/or use of the goods;
- H. Acts of God, accident, neglect or abuse of the goods by the purchaser and/or any other individual or entity; or
- I. Any use or installation inconsistent with DARMANI'S Standard Disclaimers.
  - 5. **Limitations as to Manufacturer.** The warranty does not cover products sold by DARMANI that are not manufactured by DARMANI. In those circumstances, the purchaser is referred to the manufacturer of those products. This includes Hydraulic motors and winches.

Limitation of Implied Warranties and Other Remedies. To the extent allowed by law, neither DARMANI, nor any
person affiliated with DARMANI makes any warranties, representations, or promises as to the quality, performance, or
freedom from defect of any Product covered by this Warranty.

DARMANI HEREBY DISCLAIMS, TO THE EXTENT APPLICABLE, ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. A PURCHASER'S ONLY REMEDIES IN CONNECTION WITH THIS WARRANTY ARE THOSE SET FORTH IN THIS WARRANTY. IN NO EVENT WILL DARMANI OR ANY COMPANY AFFILIATED WITH DARMANI BE LIABLE FOR INCIDENTIAL, CONSEQUENTIAL OR PUNITIVE DAMAGES.

Some jurisdictions do not allow waivers of certain warranties, so the above waivers may not apply to you. In that event, any implied warranties are limited in duration to ninety (90) days from delivery of the products. You may also have other rights which vary from jurisdiction to jurisdiction.

7. **Exclusive Warranty.** This warranty is the only warranty provided by DARMANI and all other warranties and/or commitments, whether express or implied and no matter by whom made, statutory or otherwise, are subsumed and replaced by it and are of no legal effect. If any provision of the warranty is held by a court of competent jurisdiction to be void or unenforceable, in whole or in part, such provision shall be deemed severable and will not affect or impair the legal validity of any other provision of the warranty.

### **DISCLAIMERS**

#### **Foundation Design**

The foundations are crucial to the performance of the bin, both flat and hopper whether it be mounted on a steel floor, hopper cone with or without a skid base or on cement, therefore, it is important to follow the foundation guidelines set out by DARMANI . For complete details go to DARMANI foundation recommendation section. The foundation designs included in this are suggestions only, and will vary according to local soil conditions. DARMANI will not assume any liability for results arising from their use.

#### **Method of Erection**

The recommendations for erecting DARMANI Grain Bins should be closely followed to achieve the full strength of the bin and to achieve adequate weather sealing. Warranty is void if the recommendations are not followed including but not limited to:

- 1. Wall sheets and/or uprights, which are not specified for a given tier, are used.
- 2. Foundations are found to be inadequate or out-of-level.
- 3. Anchor bolts (cast-in-place, drill-in, chemical type or other) are found to be inadequate.
- 4. Off-center loading or unloading is used. This does not apply to the use of approved side unloading (center) systems.
- 5. Materials stored are not free-flowing or have a compacted bulk density greater than 55 lbs/ft<sub>3</sub> (880 kg/m<sub>3</sub>).

<u>If using Bin Jacks:</u> Always lift on an upright. Choose a hoist with a suitable capacity for the expected empty bin dead load. Make sure the rated capacity of the hoist is not exceeded. Follow bin jack manufacture directions as they vary.

**If using Bin crane:** Models up to 30` in diameter can be lifted by the peak ring. They must use a spreader bar to lift on min. 4 points equally on the peak ring. Lifting from the roof by the peak ring is only for the lifting of the bin-No additional weight other than bin otherwise voids warranty. Lifting of the middle from the peak ring also has to be done in a controlled fashion by which no sudden jerking occurs and all peak ring to roof sheets connections have to be installed. Failure to follow any of these points voids all warranty.

**If using Picker Truck:** Models up to 30` in diameter can be lifted by the peak ring. They must use a spreader bar to lift on min. 4 points equally on the peak ring. Lifting from the roof by the peak ring is only for the lifting of the bin- No additional weight other than bin otherwise voids warranty. Lifting of the middle from the peak ring also has to be done in a controlled fashion by which no sudden jerking occurs and all peak ring to roof sheets connections have to be installed. Failure to follow any of these points voids all warranty.

#### **Site and Assembly**

DARMANI does not take responsibility for any defects or damages to any property, or injury to any persons, arising from or related to any site or assembly considerations, including but not limited to:

- Bin location and bin siting;
- Soil conditions and corresponding foundation requirements (Note that the examples provided in manuals are guidelines only and if in guestion it is recommended to check/consult with an engineer.)
- Bin assembly
- Field modifications or equipment additions that affect the bin structure:
- Interconnections with neighboring structures.
- Compliance with all applicable safety standards, including but not limited to fall restraint systems (ladders or other systems). Local safety authorities should be contacted as standards vary between jurisdictions.

#### **Critical Assembly Requirements**

- 1. Local code and jurisdictional requirements that are applicable to the grain bin installation must be adhered to.
- 2. Foundations must be designed for the loads being imparted to them, and for local soil conditions. DARMANI foundation guidelines may not be applicable to local conditions.
- 3. A foundation must provide uniform and level support to the grain bin structure being supported. Surface imperfections causing gapping must be remedied. This may involve, but not be limited to grouting under the bottom ring of a non-stiffened bin, and shimming under the uprights of a stiffened bin or under the legs of a hopper.
- 4. If extending an existing bin, ensure that the foundation is adequate for the increased loads that will be subjected to it, the proper gauge and connections are used. DARMANI offers NO warranty to customers using older bins and extending them as old sheet conditions and stiffener joining could affect structural strength.
- 5. If installing an existing bin on a hopper, ensure that the bin is designed for a hopper application, and that the foundation is capable of withstanding the substantial point loads that the hopper legs apply. If uprights are present, ensure that they are supported.
- 6. Ensure that the proper hardware is utilized for all bolted connections. If a shortage occurs **do not substitute**. Take the necessary steps to obtain the proper hardware. Ensure nuts are tightened to the <u>required torque values</u> as provided in the Installation Manual.
- 7. Refer to the appropriate Installation Manual to ensure a safe, proper structure, in particular but not exclusively for the wall sheet and upright layouts. **Do not deviate from the layouts provided.**
- 8. Ensure that an integral end-to-end connection exists between mating uprights. Successive uprights must not overlap.
- 9. Vertical tolerances between uprights and wall sheets are tight. The gapping between successive uprights must be monitored to ensure that upright holes align with bin sheet holes.
- 10. When installing roof stiffening rings, and if it is necessary to shorten the stiffening ring tubes, shorten them as little as possible. Initially the nuts on the expanders should be centered and as close together as possible. When tightening, share the amount of take-up between expanders such that the nuts remain centered, and the amount of engagement between all expanders on the same ring is equalized.
- 11. If planning on overhead filling with the use of an an overhead auger/drag converyor to fill the bin, it is important to have a structural engineer and review the design prior to installation. It is important to fill the bins in the center and any center weight added to the bin should be reviewed as DARMANI bins have been engineered for the filling of conventional augers.

## **CRITICAL BIN OPERATIONS**

# Grain Bin Use

### 1. UNLOADING FLAT BOTTOM BINS

(Always follow a pre-unload checklist as per operation manual)

- Do not off-center unload a grain bin unless it is a model equipped to handle this (see point 2). It is crucial to always <u>follow directions of Center Unload systems</u> <u>operations</u> manual/safety stickers. *Failure to do so will void warranty.*
- The only exception to center unloading is when a properly designed and installed side draw system is utilized. However, as bins tend to go out of round when employing side draws, the bin must be completely emptied before refilling.
- When unloading a bin with a mobile auger through a properly designed auger chute, the entry end of the auger should be pushed into the center of the bin before the auger is engaged. Slower rates of flow are preferable and should not exceed the capacity of an 8" auger.
- Ensure that the door/door panels of the grain bin are completely closed and latched before filling the grain bin. If a vertical assist chute is used, then it is impartant that supporting legs are touching either the steel floor or concrete pad
- Never enter a loaded grain bin for any reason. Grain can be a killer.

## 2. FILLING BINS (flat and hopper)

(Always follow a pre-fill checklist as per operation manual)

**IMPORTANT NOTE:** Complete the step below unless otherwise advised of an alternative procedure by a soils engineer.

- For the initial fill: a. If bin height is not greater than its diameter, initial fill can be completed as desired. Bins that are taller than their diameter should be filled in two stages.
  - Stage 1 Fill: The first stage should be filled to the height of the bin's diameter.
  - Stage 2 Fill: Allow 10 days for settling to occur and then complete filling the bin.

Confirm maximum uneven settlement is not more than 1.5" from level after initial fill.

#### **IMPORTANT WARRANTY NOTES:**

 Bin is full when filled to no more than 1" below the eave. Overfilling can cause roof failure and create hazardous situations if the inspection hatch opened. Do no fill bin through inspection hatch. Do not allow grain to press against roof sheets, outward pressure can cause roof damage. \*Bin must be filled through center opening

## 3. **AERATION (flat and hopper)**

When equipped with fans, to prevent roof and/or bin damage:

- Install adequate roof venting.
- Ensure all vents are open and unobstructed.
- Discontinue use of aeration fan if roof vents become obstructed with ice or bin is overfilled with grain placing outward pressure on the roof sheets.
- Monitor aeration to ensure air is being let out.

**IMPORTANT WARRANTY NOTE: Failure to do any of the above will VOID warranty** 

## **CRITICAL PRODUCT STORAGE**

### **Rust on Galvanized Parts**

- 1. White rust forms when moisture is allowed to collect on galvanized surfaces that have yet to develop the Durable zinc oxide layer. This zinc oxide layer naturally occurs as the surface interacts with carbon dioxide, and is characterized over time by the dull grey appearance that weathered galvanized surfaces get.
- 2. Parts that are not well ventilated or well drained can collect water between surfaces and develop white rust.
- 3. White rust is not a structural concern if its development is stopped in the early stages. A light film or powdery residue can occur after a period of heavy rainfall or a short time of improper storage. If white rust has started to develop, separate parts and wipe off any moisture. Next, using a clean cloth, apply a thin layer of petroleum jelly or food-grade oil to the entire part.
- 4. If moisture is left on parts, this white rust can become more aggressive and turn into red rust. Red rust can cause degradation in the material and become a structural concern. Any parts that have red rust should be replaced immediately.

## STORAGE GUIDELINES



Keep all bundles dry before assembly of the bin. Start assembly as soon as possible. Do not lay bundles on the bare ground, raise all bundles 6'' - 8'' off the ground on wood blocks or timbers.

Store curved wall sheets 'hump-up'. All other bundles material should be placed so that they are well sloped to promote good drainage.

NOTE: If sheets are covered and wrapped, it will assist in shedding water, These are not waterproof, and will deteriorate in normal weather conditions, allowing moisture to contact the parts.



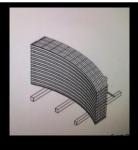
Roof sheets must be elevated at least 12" at the small end of the sheets.



Temporary storage can be provided by erecting a simple framework supporting a waterproof tarp.

Any parts either wrapped or in boxes/crates should be stored inside if in contact with water/rain. These are not 100% waterproof, and will deteriorate in normal weather conditions over time, allowing moisture to contact the parts inside.

## **If Parts Become Wet**



- 1. If goods become submerged or wet, the bundles should be opened as soon as possible, sheets or material separated and dried. Keep separated until assembly. Brace goods properly so as to avoid damage or injury from material falling when in storage.
- 2. Any boxed goods that become wet should be dried and stored in a new box that is free of moisture.
- 3. In addition to wiping down wallsheets, a food-grade oil can also be applied with a clean, lint-free cloth. This will assist in preventing any further moisture from contacting the galvanizing on the steel. Due to safety concerns with installation and use, Darmani does not recommend the use of oil on other parts such as roof sheets and safety ladders.

## **IMPORTANT NOTES**

All Galvanized materials are stored inside factory shop prior to shipping to ensure product quality. It is crucial to keep tightly packed galvanized material free from moisture as it is subject to rusting which is not covered by DARMANI LIMITED WARRANTY.

- 1. In order to maintain your wall sheets in good condition separate sheets and allow air circulation between them. Store sheets in a dry place. Do not store sheets with sheet ends pointing upwards. Always store "HUMP UP" see critical product storage section.
- 2. To keep an even pressure on walls, the bin must always be unloaded from the centre.
- 3. Contact local power officials for minimum power line clearance.
- 4. See "Disclaimers Design" for materials which can be stored.
- 5. Tighten all bolts to the recommended torque setting (see Recommended Bolt Torques table in Appendix).
- 6. Do not locate grain bin close to high buildings, which might cause snow to fall onto or build up on the roof of the grain bin. Consider future expansion and allow space for loading and unloading of the bin. Your dealer and local government agricultural consultants can help you plan your storage system for maximum efficiency.

#### **Shortages and Damaged Parts**;

Report damaged parts or shortages immediately to the delivering carrier, followed by a confirming letter requesting inspection by the carrier, if required. Order any replacement parts immediately to ensure that assembly will not be held up by missing parts. All parts will be charged for and credit will be issued by party at fault - no credit will be issued if freight bills are signed as received in good condition.

\*NOTE: (Digital pictures are taken of products at factory)

### **Order Optional Equipment**;

Optional equipment such as unloading augers, aeration equipment, anchor bolts, foundation sealant, external ladders, safety cage and platforms, etc., should all be on site and checked before assembly starts. Plan your installation in advance. For details, see assembly instructions supplied with optional equipment from either DARMANI or from other manufacturers whom have sold/provided and made the optional equipment.