

FAN GUIDE



AGI Grain Guard

AGI Grain Guard specializes in aeration and conditioning equipment and is committed to providing industry leading products for farm and commercial operations.

If you're looking for tips and tricks on how to get the most out of your crop, visit aggrowth.com/grainguard and click on the Support & Resources link located to the right. We have seasonal articles and answers to commonly asked questions.



Centrifugal fans

LOW SPEED | HIGH SPEED | IN-LINE

Low speed centrifugal fans

AGI Grain Guard low speed centrifugal fans are designed to maximize airflow at lower to medium static pressure.

- Available in 5-50 HP galvanized housing
- Totally enclosed, fan-cooled, electric motors (TEFC)
- Precision-balanced airfoil blade wheel ensures maximum airflow and efficiency
- Adjustable feet allow fans to be leveled on a concrete pad or support stand
- Aerodynamically designed inlet cone



LOW SPEED (1750 RPM) AIR DELIVERIES (CFM)

MODEL	HP	INCHES IN STATIC PRESSURE												
		0	1	2	3	4	5	6	7	8	9	10	11	12
GGL-805**	5	9,500	8,900	7,650	6,700	6,000	5,200	3,700	2,000	—	—	—	—	—
GGL-807**	7.5	12,100	11,500	10,600	9,700	9,000	7,900	6,700	4,250	2,000	—	—	—	—
GGL-810**	10	16,050	15,100	14,200	13,300	12,300	11,300	10,100	7,800	3,270	—	—	—	—
GGL-815**	15	18,100	17,000	16,200	15,200	14,300	12,700	11,700	11,100	8,750	4,000	—	—	—
GGL-8203*	20	23,700	22,800	21,800	20,600	19,600	18,600	17,200	15,800	13,210	10,550	7,510	4,730	—
GGL-8253*	25	24,100	23,700	22,700	21,700	20,900	20,000	19,000	17,700	15,250	12,380	10,000	4,550	—
GGL-8303*	30	28,000	26,700	25,500	24,500	23,500	22,300	21,000	20,000	18,000	16,000	14,000	10,000	—
GGL-8403*	40	30,400	30,400	29,670	28,630	27,340	26,160	24,840	23,410	20,310	19,450	17,590	15,240	—
GGL-8503*	50	34,100	33,300	32,250	31,200	30,200	29,100	28,000	26,800	25,600	24,500	23,200	21,700	19,700

Fan Performance: Airflow (CFM) at Static Pressure (In. Water Gauge)

** Phase and Voltage of fan

Centrifugal fans

LOW SPEED | HIGH SPEED | IN-LINE

High speed centrifugal fans

AGI Grain Guard high speed centrifugal fans are designed to maximize airflow at medium to high static pressure.

- Available in 3-15 HP powder coated housing
- Available in 20-40 HP galvanized housing
- Totally enclosed, fan-cooled, electric motors (TEFC)
- Precision-balanced airfoil blade wheel ensures maximum airflow and efficiency
- Adjustable feet on larger horsepower units allow the fan to be leveled on a concrete pad or support stand
- Aerodynamically designed inlet cone
- Weatherproof electrical controls



3 HP-15 HP
Painted fans



20 HP - 40 HP
Galvanized fans

HIGH SPEED (3550 RPM) AIR DELIVERIES (CFM)

MODEL	HP	INCHES IN STATIC PRESSURE										
		0	2	4	6	8	10	12	14	16	18	20
GGF-803**	3	3,710	3,430	3,120	2,740	2,260	—	—	—	—	—	—
GGF-805**	5	4,930	4,800	4,100	3,530	3,140	1,980	—	—	—	—	—
GGF-807**	7.5	5,750	5,500	5,140	4,560	4,140	3,480	2,410	—	—	—	—
GGF-810**	10	7,320	6,950	6,260	5,840	5,500	5,150	4,750	4,240	—	—	—
GGF-8153*	15	9,280	8,920	8,450	7,950	7,380	6,630	6,050	5,200	—	—	—
GGF-8203*	20	9,300	9,060	8,670	8,130	7,780	7,340	6,840	6,240	5,570	4,720	3,700
GGF-8253*	25	10,850	10,520	9,930	9,380	8,710	8,070	7,410	6,570	5,560	4,230	3,200
GGF-8303*	30	13,950	13,540	12,990	12,310	11,630	10,560	9,870	9,030	8,080	7,130	6,000
GGF-8403*	40	16,850	16,240	15,500	14,820	14,090	13,240	11,490	10,670	9,650	9,010	7,800

Fan Performance: Airflow (CFM) at Static Pressure (In. Water Gauge)

** Phase and Voltage of fan

Centrifugal fans

LOW SPEED | HIGH SPEED | **IN-LINE**

In-Line centrifugal fans

AGI Grain Guard in-line centrifugal fans are designed to maximize airflow at low to medium static pressure.

- Available in 3-15 HP sizes
- 18", 24", and 28" powder coated housing
- Precision-balanced steel fan wheel ensures maximum airflow and efficiency
- Aerodynamically designed inlet cone
- Weatherproof electrical controls
- Air-over cooled motor (ODP)



IN-LINE CENTRIFUGAL FAN AIR DELIVERIES (CFM)

MODEL	HP	INCHES IN STATIC PRESSURE							
		0	2	4	6	8	10	12	14
GGI-803**	3	4,100	3,690	3,020	2,130	—	—	—	—
GGI-805**	5	5,750	5,430	4,790	4,050	1,600	—	—	—
GGI-807**	7.5	6,980	6,550	5,950	5,220	4,340	1,560	—	—
GGI-810**	10	8,020	7,750	7,220	6,550	5,850	4,960	3,640	1,000
GGI-815**	15	9,390	8,900	8,340	7,710	6,940	6,300	5,340	1,390

Fan Performance: Airflow (CFM) at Static Pressure (In. Water Gauge)

** Phase and Voltage of fan

Supplemental Heaters

Low temperature downstream heaters

AGI Grain Guard low temperature downstream heaters allow for 24 hour grain drying when high humidity conditions prevail. The heater is easily installed between the fan and bin.

- Lowers humidity up to 50%
- 60,000 and 100,000 BTU models raise air temperature approximately 10-12 °C
- 200,000 BTU models raise air temperature approximately 25-30 °C
- Propane or natural gas (operate on lbs. pressure only)
- Available for in-line and high speed centrifugal fans
- Electronic ignition
- High heat limit safety switches
- Airflow and pressure sensing safety devices included
- 60,000 BTU available in 9"x14" or 18" round (3 HP fan)
- 100,000 BTU available in 9"x14" or 24" round (5 HP & 7 HP fans)
- 200,000 BTU available in 12"x17" or 28" round (15 HP fans)



High temperature downstream heaters

AGI high temperature downstream heaters are designed to increase temperature while decreasing humidity. Recommended to be used with a stirrator system, allows for crops to be efficiently and effectively dried inside of your grain bin.

- Two sizes available in both natural gas and liquid propane
 - To fit 5 HP to 15 HP low speed fans
 - LP 200,000 to 2.45 million BTU
 - Natural gas 240,000 to 2.35 million BTU
 - To fit 20 HP to 40 HP low speed fans
 - LP 603,000 to 4.48 million BTU
 - Natural gas 704,000 to 4.23 million BTU
- Adjustable vaporizer on liquid propane models
- Built-in safety and troubleshooting features allow for safe operation and easy problem diagnosis
- Y-Strainers keep fuel impurities out of valves
- Transitions and adaptor plates available to match the appropriate fan/heater combination



Low temperature upstream heaters

AGI's low temperature upstream heaters are your solution when a slight rise in temperature is required to help reduce humidity in your bin. Low temp heaters are designed to provide a consistent amount of heat which results in less cycling and increases the life of components.

- Available in vapor propane or natural gas models to fit 10 HP to 40 HP Low speed fans
 - Propane 37,500-346,000 BTU
 - Natural gas 59,000 to 335,000 BTU
- Perfect solution for low temperature grain drying when less than 20 °F (11 °C) temperature rise is required
- Built-in adjustable brackets fit a variety of centrifugal fans
- Built-in safety and troubleshooting features allow for safe operation and easy problem diagnosis
- Adjustable airflow baffles allow for successful ignition at low burner pressures
- Remotely mounted control box
- Industrial-grade ignitor and flame probe provide consistent lighting and long service life

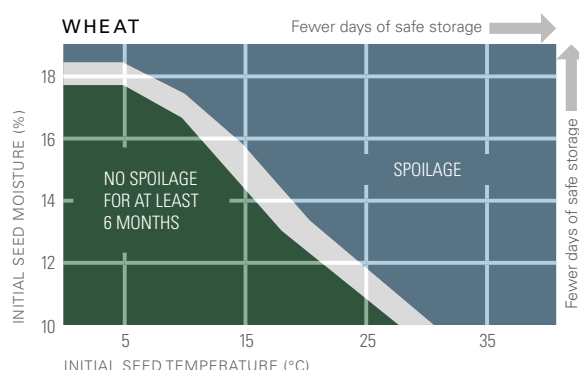
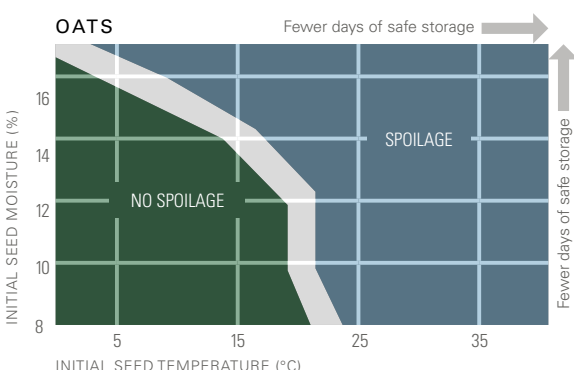
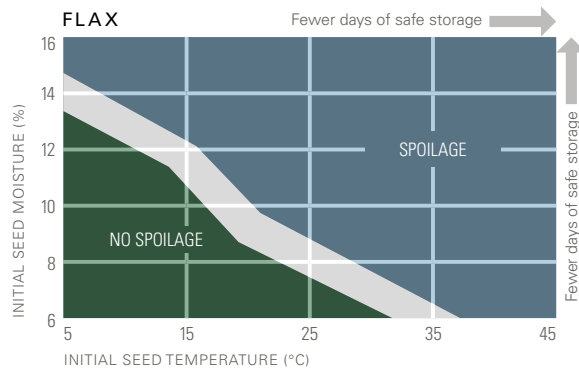
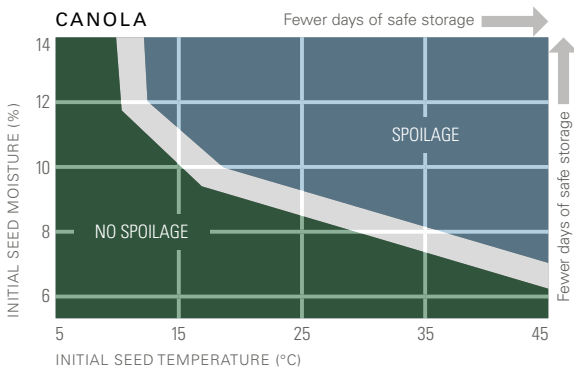
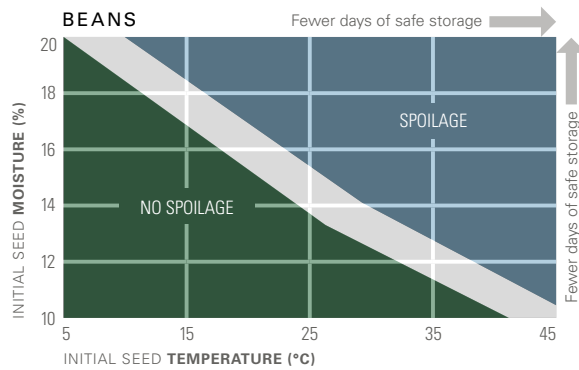
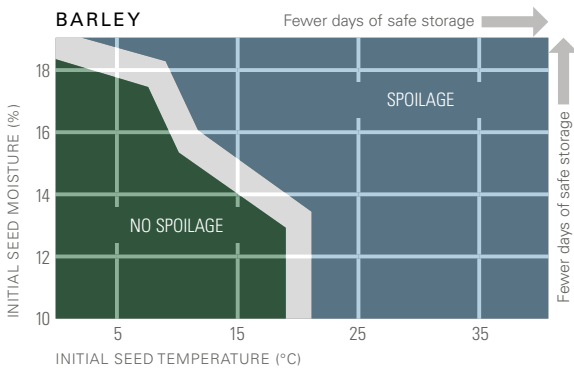


Equilibrium Moisture Content (EMC)

EMC reflects moisture levels in grain when exposed to certain humidity levels and temperatures for a period of time.

RELATIVE AIR HUMIDITY	CORN		RELATIVE AIR HUMIDITY	WHEAT		RELATIVE AIR HUMIDITY	CANOLA	
	10 °C (50 °F)	25 °C (77 °F)		10 °C (50 °F)	25 °C (77 °F)		10 °C (50 °F)	25 °C (77 °F)
50%	12.50%	11.00%	58%	13%	12%	58%	8.60%	7.50%
60%	13.80%	12.40%	64%	14%	13%	64%	9.40%	8.20%
70%	15.40%	14.00%	70%	15%	14%	70%	10.30%	9.00%
80%	17.30%	16.00%	75%	16%	15%	75%	11.10%	9.80%
90%	20.20%	19.00%	79%	17%	16%	79%	12.00%	10.80%
—	—	—	83%	18%	17%	83%	13.20%	12.00%
—	—	—	86%	19%	18%	86%	14.50%	13.40%

SAFE STORAGE CHARTS



Charts provided by <http://www.grainscanada.gc.ca/storage-entrepose/esp-de-eng.htm#barley>



GRAIN GUARD is an AGI Brand.

AGI is a leading provider of equipment solutions for agriculture bulk commodities including seed, fertilizer, grain, and feed systems with a growing platform in providing equipment and solutions for food processing facilities. AGI has manufacturing facilities in Canada, the United States, the United Kingdom, Brazil, India and Italy and distributes its products globally.

AGI **GRAINGUARD**

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