

AERATION AND GRAIN CONDITIONING

# FANS AND HEATERS



**PROVEN & DEPENDABLE™**

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# PROVEN & DEPENDABLE

The demands of farming are never-ending. Maintaining consistent grain quality is essential to long-term profitability and viability. GSI manufactures a complete line of aeration and grain-conditioning systems to help maintain grain quality in any operation.

Never satisfied with the status quo, for over 40 years we have been driven to provide top-of-the-line products that will protect, condition and move the grain you work so hard to produce. As the pioneers in grain conditioning, we've set the industry standard with forward-thinking solutions designed to make you more productive.

The quality of our products is only matched by our commitment to stand behind them. Every component we design and produce is pretested before installation to ensure your system is running at optimal performance. We are committed each and every day to provide the best products and service possible. Our industry experts, and our worldwide network of dealers have provided farming operations with unparalleled expertise and support for over 40 decades.

While our commitment to remain at the top runs deep, our commitment to you runs even deeper.

**THAT'S WHY GSI.**





## FANS & HEATERS

### CHOOSING THE RIGHT AERATION SYSTEM

Having the right size of fan and drying system for your specific operation is key. Too much airflow can be as bad – sometimes even worse – than too little airflow.

GSI manufactures a complete line of rugged aeration and grain conditioning systems to help maintain grain quality. Choose from a variety of high efficiency vane axial, centrifugal, and inline centrifugal fans and heaters, all with features designed to reduce costs and boost performance.

No matter the fan size or type, our network of experienced dealers is the most knowledgeable in the field to ensure you equip your bin with the aeration and conditioning system that matches your specific requirements.

FAN TYPE	AXIAL	CENTRIFUGAL	INLINE CENTRIFUGAL	HIGH SPEED CENTRIFUGAL
HORSEPOWER	1 - 15	5 - 50	1.5 - 15	3 - 50
APPLICATION	Aeration, Drying	Aeration, Drying	Aeration	Aeration
NOISE				
COST	\$	\$\$	\$\$\$	\$\$\$
HEATER AVAILABLE	✓	✓	Not Applicable	Not Applicable

BURNER TYPE	VANE AXIAL DOWNSTREAM STANDARD OR DELUXE	DELUXE VANE AXIAL UPSTREAM ON 1750 CENTRIFUGAL FAN	CHI-TOWN UPSTREAM ON 1750 CENTRIFUGAL FAN	CENTRIFUGAL DOWNSTREAM
APPLICATION	MEDIUM TEMP. 20-60 DEGREES  HIGH TEMP. OVER 60 DEGREES	LOW TEMP. OR EQUILIBRIUM 0-10 DEGREES  MEDIUM TEMP. 20-60 DEGREES	LOW TEMP. 0-10 DEGREES  MEDIUM TEMP. 20-60 DEGREES	MEDIUM TEMP. 20-60 DEGREES  HIGH TEMP. OVER 60 DEGREES



# AERATION FANS

## VANE AXIAL FANS

For application requiring high airflow at static pressures below 6" (depending on bin diameter), GSI offers vane axial fans in 12" diameter (1 HP) through 28" diameter (15 HP). Vane axial fans 18" and smaller use cast aluminum blades. Vane axial fans 24" through 28" use durable composite airfoil blades that are lightweight for easy starting and function well in this type of environment.

The 12" through 28" (1-15 HP) units feature a 3450 RPM motor for increased fan performance and energy efficiency. Close fan blade tip clearance and straightening vanes provide maximum air flow and reduced turbulence to ensure smooth and consistent airflow.

All 24" and 28" vane axial fans also include a durable plastic inlet venturi which funnels air more efficiently into the fan.



## INLINE CENTRIFUGAL FANS

Aeration jobs at high static such as with milo, wheat or rape seed require special consideration. Aerating tall hopper tanks presents another challenge. The inline centrifugal fan is designed to handle both of these applications effectively.

Suited for higher static pressures, beyond the performance range of vane axial fans, the inline centrifugal fan offers higher static pressure capabilities than a 1750 RPM centrifugal fan at a lower cost.

Inline centrifugal fans make less noise than vane axial fans at 3500 RPM due to the fan wheel being totally enclosed in the fan housing.

Inline Centrifugals can not be used with heaters due to their design.



## 1750 RPM CENTRIFUGAL FANS

GSI's 1750 RPM centrifugal fans are built with a heavy galvanized steel, scroll-type housing and inverted inlet venturi. A non-overloading backward-inclined airfoil wheel provides high airflow with a long motor life. These fans operate at a very low noise level and are designed to accommodate a variety of heaters for use on drying bins where higher capacities are required. Models are available from 5 - 50 HP with static pressures up to 11".

## 3500 RPM CENTRIFUGAL FANS

GSI also manufactures a 3500 RPM centrifugal fan designed to operate in static pressures up to 22". These fans are used primarily with tall tanks or small grains tanks with high resistance to airflow. 3500 RPM centrifugal fans can not be used with heaters due to their design.





## AERATION FAN AIRFLOW RATINGS

### VANE AXIAL FANS - 3450 RPM

MODEL	H.P.	FAN DIA.	0.0	1.0	2.0	3.0	4.0	5.0	6.0
AF-12	1	12"	2,200	1,450	700	300			
AF-14	1	14"	3,500	2,500	1,350	820			
AF-1.5	1.5	18"	5,500	4,330	2,750	1,500			
AF-3	3	18"	6,900	6,210	4,830	3,150	1,870		
AF-7	7	24"	14,000	12,800	11,500	10,000	7,400	4,800	
AF-10	10	24"	15,300	13,810	12,240	10,540	7,580	3,950	
AF-158	15	28"	21,500	19,800	18,000	16,000	13,600	10,700	7,000

### INLINE CENTRIFUGAL FANS - 3450 RPM

MODEL	H.P.	WHEEL DIA.	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
ILC-1.5	1.5	18"	2,650	2,450	2,300	2,100	1,850	1,500						
ILC-318	3	18"	4,550	4,300	4,000	3,750	3,500	3,100	2,700					
ILC-324	3	24"	5,000	4,725	4,450	4,200	3,950	3,600	3,200	2,900				
ILC-7	7	24"	5,400	5,150	4,900	4,650	4,400	4,100	3,800	3,400				
ILC-10	10	28"	6,150	5,950	5,800	5,600	5,450	5,250	5,050	4,850	4,650	4,400	4,200	3,900
ILC-15	15	28"	7,950	7,700	7,500	7,250	7,000	6,800	6,500	6,250	6,000	5,700	5,400	

### 3500 RPM CENTRIFUGAL FANS

MODEL	H.P.	WHEEL DIA.	0.0	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0	22.0
CHS-3	3	15"	3,350	2,900	2,450	2,150	1,750	950						
CHS-5	5	15"	4,900	4,450	4,000	3,500	2,900	1,500						
CHS-7.5	7.5	18"	5,000	4,700	4,500	4,200	3,900	3,700	3,250	2,300				
CHS-10	10	18"	7,250	6,900	6,300	5,800	5,450	4,900	4,300	3,000				
CHS-15	15	18"	10,100	9,500	9,000	8,400	7,900	7,400	6,600	4,600				
CHS-20	20	22"	10,900	10,400	9,850	9,350	8,800	8,100	7,550	6,800	6,500	5,900	4,000	
CHS-30	30	22"	14,500	13,750	13,100	12,350	11,500	10,900	10,400	9,800	9,100	8,300	6,000	
CHS-40	40	22"	19,000	18,400	17,750	17,125	16,500	15,750	15,000	14,125	13,125	12,000	9,000	
CHS-50	50	24"	22,600	21,100	20,500	19,750	19,000	18,400	17,600	16,800	16,000	15,000	13,500	11,500

### 1750 RPM CENTRIFUGAL FANS

MODEL	H.P.	WHEEL DIA.	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0
CF-3	3	24"	6,000	5,500	5,000	4,500	4,000	2,500						
CF-5	5	24"	9,500	8,950	7,750	6,750	6,100	5,350						
CF-7.5	7.5	24"	12,200	11,600	10,800	10,000	9,100	8,000						
CF-10	10	27"	16,050	15,000	14,150	13,300	12,400	11,350	10,000	7,800	3,400			
CF-15	15	27"	18,200	17,100	16,250	15,300	14,250	12,700	11,750	11,000	8,750			
CF-20	20	30"	23,700	22,850	21,850	20,600	19,550	18,600	17,200	15,850	14,600			
CF-25	25	30"	24,000	23,750	22,750	21,750	21,000	20,000	19,000	17,750	16,000	14,000		
CF-30	30	33"	28,100	26,900	25,600	24,600	23,600	22,500	21,000	20,100	19,700	17,800	16,000	11,500
CF-40	40	33"	32,750	31,750	30,750	29,750	28,750	27,750	26,750	25,750	24,250	22,750	20,250	15,000
CF-50	50	33"	36,680	35,560	34,440	33,320	32,200	31,080	29,960	28,840	27,160	25,480	22,680	16,800
CF-40*	40	33"	47,400	45,700	43,700	41,200	39,100	37,200	34,400	31,700	29,200			
CF-50*	50	33"	48,000	47,500	45,500	43,500	42,000	40,000	38,000	35,500	32,000	28,000		

\* = Double Inlet Fan

GSI fans are engineered for the highest level of performance, durability, and energy efficiency. Each fan is factory tested for optimal operation.

Charts: cfm @ static pressure in inches.



# HEATERS



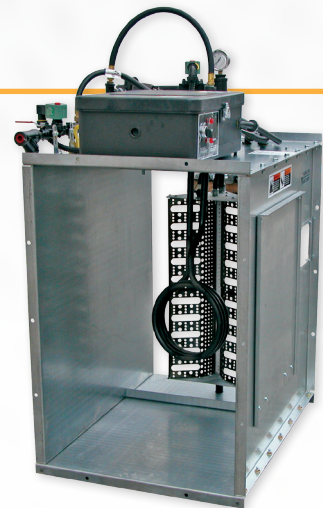
## VANE AXIAL DOWNSTREAM HEATERS

For use as a medium to high temperature downstream on axial fans or with deluxe models as a low temperature, equilibrium or medium temperature burner on 1750 RPM centrifugal fans. With capacities up to 3.0 million BTU/hr., our vane axial fan and heater combination provides the very best in high capacity grain drying. Vane axial heaters are available in 18" to 28" dia., liquid propane, propane vapor or natural gas models.



## CHI-TOWN UPSTREAM HEATERS

GSI's "Chi-Town" heater is a low or medium temperature burner for use only upstream on 1750 RPM centrifugal fans. Capable of .3 to 1.1 million BTU/hr., and available in propane vapor or natural gas, "Chi-town" is perfect for the drying/aeration of rice, corn or other select grains.



## CENTRIFUGAL DOWNSTREAM HEATERS

For use downstream as a medium or high temperature burner on 1750 RPM centrifugal fans. Not for use as a low temperature burner. Specially designed burners are adjustable for uniform heating temperatures with a choice of liquid propane, propane vapor or natural gas. Available for GSI's 1750 RPM (10-40 HP) centrifugal models, the downwind centrifugal burner is capable of capacities up to 4.2 million BTU/hr.



### GSI HEATERS INCLUDE:

- Patented "Blue-Burn" optimizer on propane (LP) models
- Transition high-limit switch
- Liquid filled pressure gauge
- Automatic ignition shutoff after proof of flame for extended ignitor life

### STANDARD HEATER FEATURES:

- Mechanical, normally closed, flame switch with time delay reset which is electronically monitored for greater safety
- Not recommended for use as an upstream burner on 1750 centrifugal fans

### DELUXE HEATER FEATURES:

- Pipe train and burner design allows heater to work HIGH-temp or LOW-temp (down to 10 degree temperature rise)
- Solid-state flame sensing using flame conduction
- Self-diagnosing "Smart" board
- Large, easy-access door with clear view window
- 10 second purge delay
- Approved for use as an upstream burner on 1750 centrifugal fans



## HEATER BTU RATINGS

### VANE AXIAL HEATER BTU RATINGS

MODEL	HEATER DIA.	FUEL	BTU RANGES
VHS-18 LP	18"	Liquid Propane	50,000 to 1,400,000
VHS-18 V*	18"	Propane Vapor	50,000 to 1,400,000
VHS-18 N*	18"	Natural Gas	50,000 to 1,400,000
VHS-24 LP*	24"	Liquid Propane	100,000 to 2,100,000
VHS-24 V*	24"	Propane Vapor	100,000 to 2,100,000
VHS-24 N*	24"	Natural Gas	100,000 to 2,100,000
VHS-24 LP*	26"	Liquid Propane	100,000 to 2,700,000
VHS-26 V*	26"	Propane Vapor	100,000 to 2,700,000
VHS-26 N*	26"	Natural Gas	100,000 to 2,700,000
VHS-28 LP*	28"	Liquid Propane	100,000 to 3,000,000
VHS-28 V*	28"	Propane Vapor	100,000 to 3,000,000
VHS-28 N*	28"	Natural Gas	100,000 to 3,000,000

High Low Fire "H" or Modulating Valve "M" can be added.

Deluxe models may be used as an upstream low temperature, equilibrium or medium temperature burner on 1750 RPM centrifugal fans.

\* = Deluxe model available.

### CHI-TOWN UPSTREAM HEATER BTU RATINGS

MODEL	MATCHING FAN HP	FUEL	BTU RANGES
CRH-26VN	5-40 hp	Propane Vapor	500,000 to 1,100,000
CRH-26VN	5-40 hp	Natural Gas	500,000 to 1,100,000

For low or medium temperature use upstream on 1750 centrifugal fans.

### CENTRIFUGAL DOWNSTREAM HEATER BTU RATINGS

MODEL	MATCHING FAN HP	FUEL	BTU RANGES
CHD-15-LP	10-15 hp	Liquid Propane	800,000 to 2,300,000
CHD-15-V	10-15 hp	Propane Vapor	800,000 to 2,300,000
CHD-15-N	10-15 hp	Natural Gas	800,000 to 2,300,000
CHD-30-LP	20-30 hp	Liquid Propane	1,200,000 to 3,300,000
CHD-30-V	20-30 hp	Propane Vapor	1,200,000 to 3,300,000
CHD-30-N	20-30 hp	Natural Gas	1,200,000 to 3,300,000
CHD-40-LP	40-50 hp	Liquid Propane	1,500,000 to 4,200,000
CHD-40-V	40-50 hp	Propane Vapor	1,500,000 to 4,200,000
CHD-40-N	40-50 hp	Natural Gas	1,500,000 to 4,200,000

Not for use as a low temperature burner.



# COMPLETE YOUR GSI SYSTEM

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## 40-SERIES™ GRAIN BINS

When determining the best system for your operation, we know that what is protected inside the bin is what counts the most. Every product we design, engineer and build is based on this foundation.



## TOPDRY

Grain in the overhead chamber is dried by a large fan and heater then dumped to a holding area below. An aeration fan below captures heat from this previously dried grain, and pushes it upward to help dry the next load. This recycling of heat increases efficiency, which greatly reduces drying costs.



## MATERIAL HANDLING

GSI's material handling line includes bucket elevators, chain conveyors, belt conveyors, bin unloads, and chain loops. Also available are towers, catwalks, and support structures.



## GLOBAL SOLUTIONS. LOCAL SUPPORT.

GSI and GSI Dealers alike share the same passion and commitment to our customers. GSI Dealers understand down time is not an option, construction schedules must be met. From site planning to installation and service, GSI Dealers are the proven partners for your operation. When you buy GSI, you get the quality product of a worldwide leader and the dependable service of your local Dealership.

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