



TO: All Sales & Marketing Associates

FROM: Toby Hobson; Product Engineer; Fans & Heaters; Grain Group

RE: 2004 model Centrifugal Downwind Heaters

The 2004 model Downstream Heaters for Domestic sales have been released to production. These heaters have the best features of both the former GSI and FFI product lines. There are some specific changes to these units that everyone needs to know about.

New Part Numbers

The "VN" model has been replaced by a "V" and "N" model. Material costs and component size required the two model numbers. Each model is in the computer and ready for sale. The customer now needs to specify which gas type he needs when ordering.

Liquid Propane (top seller) model numbers have not changed.

A few Vapor/NG numbers are in stock, and these numbers will remain active until the stock is gone. Try to sell them first!

Increased Length

These new heaters are now 33" long from front to back. The older GSI heaters were 24" and FFI were 33". The change is a benefit to the design; however, the fan now needs to be set back from the bin an additional 9" to accommodate the extra length.

Specification Changes

Btu ratings have changed. This change is a result of the fan requirements and the burner capabilities.

Conversion Kits

HILO and MOD kits are not required for these heaters as each option will be available from the factory. If a field conversion is required, engineering will release new part numbers as needed. Conversions are simple. All that is needed is a valve addition with some necessary plumbing parts.

50 hp Version

The CHD-40 has been designed to adapt to the CF-50 fan. A new addition to the product line.

CENTRIFUGAL GAS HEATERS - 2004 PRICE LIST

PROPANE VAPOR

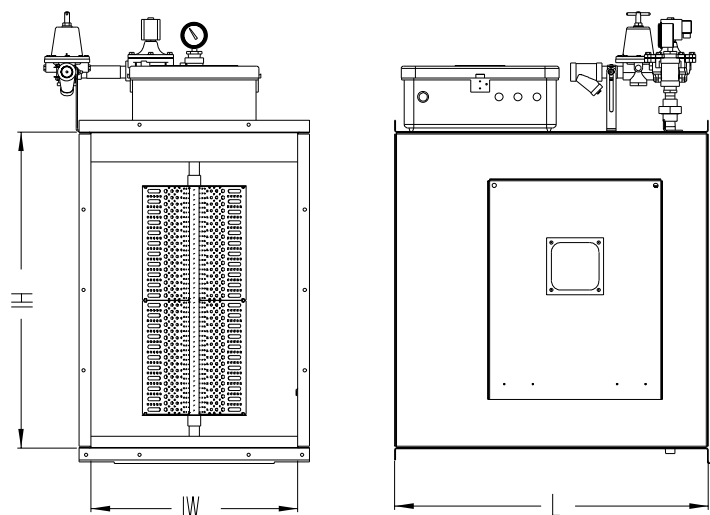
HP	Type	BTU Range	Model	LBS	KG	Price
10-15	Cycling	800,000 - 2,300,000	CHD-15-V	147	66	\$1,445.00
10-15	High-Low	800,000 - 2,300,000	CHD-15-VH	148	67	\$1,816.00
10-15	Modulating	800,000 - 2,300,000	CHD-15-VM	154	70	\$1,910.00
20-30	Cycling	1,200,000 - 3,300,000	CHD-30-V	159	72	\$1,517.00
20-30	High-Low	1,200,000 - 3,300,000	CHD-30-VH	160	73	\$1,888.00
20-30	Modulating	1,200,000 - 3,300,000	CHD-30-VM	166	75	\$2,383.00
40-50	Cycling	1,500,000 - 4,200,000	CHD-40-V	165	75	\$1,803.00
40-50	High-Low	1,500,000 - 4,200,000	CHD-40-VH	166	75	\$2,173.00
40-50	Modulating	1,500,000 - 4,200,000	CHD-40-VM	172	78	\$2,669.00

LIQUID PROPANE

HP	Type	BTU Range	Model	LBS	KG	Price
10-15	Cycling	800,000 - 2,300,000	CHD-15-LP	164	75	\$1,784.00
10-15	High-Low	800,000 - 2,300,000	CHD-15-LPH	166	75	\$2,155.00
10-15	Modulating	800,000 - 2,300,000	CHD-15-LPM	172	78	\$2,248.00
20-30	Cycling	1,200,000 - 3,300,000	CHD-30-LP	177	80	\$1,913.00
20-30	High-Low	1,200,000 - 3,300,000	CHD-30-LPH	178	81	\$2,284.00
20-30	Modulating	1,200,000 - 3,300,000	CHD-30-LPM	184	83	\$2,779.00
40-50	Cycling	1,500,000 - 4,200,000	CHD-40-LP	163	74	\$2,215.00
40-50	High-Low	1,500,000 - 4,200,000	CHD-40-LPH	167	76	\$2,585.00
40-50	Modulating	1,500,000 - 4,200,000	CHD-40-LPM	171	77	\$3,081.00

NATURAL GAS

HP	Type	BTU Range	Model	LBS	KG	Price
10-15	Cycling	800,000 - 2,300,000	CHD-15-N	150	68	\$1,445.00
10-15	High-Low	800,000 - 2,300,000	CHD-15-NH	151	68	\$1,816.00
10-15	Modulating	800,000 - 2,300,000	CHD-15-NM	156	71	\$1,910.00
20-30	Cycling	1,200,000 - 3,300,000	CHD-30-N	159	72	\$1,517.00
20-30	High-Low	1,200,000 - 3,300,000	CHD-30-NH	160	73	\$1,888.00
20-30	Modulating	1,200,000 - 3,300,000	CHD-30-NM	167	76	\$2,383.00
40-50	Cycling	1,500,000 - 4,200,000	CHD-40-N	164	75	\$1,803.00
40-50	High-Low	1,500,000 - 4,200,000	CHD-40-NH	165	75	\$2,173.00
40-50	Modulating	1,500,000 - 4,200,000	CHD-40-NM	172	78	\$2,669.00



Heater Dimensions (inches)			
	IH	IW	L
CHD-15	30.25	19.50	33.00
CHD-30	33.25	21.75	33.00
CHD-40	33.25	23.69	33.00

Fuel Specifications and Recommendations				
Model Number		CHD-15	CHD-30	CHD-40
BTU Rating		2,300,000	3,300,000	4,200,000
Liquid Propane Models (LP)	Orifice Size	7/32"	17/64"	5/16"
	Operating Pressure Range, Heater Gauge Pressure (psi) **	1-15	1-15	1-15
	Typical Max Fuel Flow (GPH) *	25	36	46
	Minimum Liquid Line Size	1/2"	1/2"	1/2"
Propane Vapor Models (VN)	Orifice Size	7/32"	17/64"	5/16"
	Operating Pressure Range, Heater Gauge Pressure (psi) **	1-15	1-15	1-15
	Typical Max Fuel Flow (CFH) *	961	1379	1755
	Minimum Line Size, 100' Run	1.0"	1.0"	1.25"
	Minimum Pressure to Heater at Connection (psi)	20	20	20
Natural Gas Models (VN)	Orifice Size	21/64"	25/64"	7/16"
	Operating Pressure Range, Heater Gauge Pressure (psi) **	1-7	1-7	1-7
	Typical Max Fuel Flow (CFH) *	2212	3173	4038
	Minimum Line Size, 100' Run	1.0"	1.0"	1.25"
	Minimum Pressure to Heater at Connection (psi)	10	10	10

* Maximum fuel flow rates listed assume full heat output for gas line sizing purposes. In normal operation, the fuel flow rates would be substantially lower than indicated, due to actual pressure setting used and cycling of the burner.

** The gas pressures listed show the operating limits for each model heater and are not necessarily the recommended operating pressure. The actual gas operating pressure should be within these limits, but will vary depending on the type of grain and the drying system. The maximum setting assumes ideal conditions of relatively low static pressure conditions with high fan airflow and good quality combustion. High static pressure conditions will require lower maximum gas pressure setting than specified.