



Discover Why The World's Best
Roastmasters Choose Loring™ Roasters



THE LORING STORY

CREATING A SUSTAINABLE COFFEE ROASTER

In the late 1990's, Mark Loring Ludwig, founder of Loring Smart Roast, set out to create a more efficient coffee roaster that produced great tasting coffee. He recognized that smokeless roasting* that didn't require an afterburner would be a revolutionary design. What he created is a system that uses up to 80% less fuel than other roasters. This reduction in fuel translates to an 80% reduction in the amount of greenhouse gasses produced in every roast. It also translates to enormous savings in the cost of fuel to operate the roaster.

Developing the Flavor-Lock Roast Process™ Technology

While green technology is good, the roasted coffee had to be exceptional as well. Mark developed the Flavor-Lock Roast Process Technology that also enables Roastmasters to coax out the best flavors from every bean. This novel design uses a near-zero oxygen atmosphere in the roaster, along with increased humidity, to help preserve the flavor components of the beans. There are also two heating zones within the cyclone, one zone incinerates the smoke and exhaust gases of the roast while the other, at a lower temperature, provides the air to the roasting chamber to gently roast the beans.

Producing Great Roasts Time After Time

Even with all of these developments, the roaster must still meet high standards of consistency to reproduce the artisanal quality of a great roast time after time. By creating a tightly controlled atmosphere in the roast chamber and using advanced digital controls that can be read on the display, or remotely on iPads and smart phones, Roastmasters now have greatly improved control of every roast, and can capture a roast profile that accurately repeats each time.

Winning Recognition World-Wide

Roastmasters using Loring roasters took 1st place in the espresso and filter coffee categories at the 2012 Nordic Roasters Forum in Stockholm and 1st and 3rd place in 2012 at the World Roasters Cup in Taiwan. Loring roasters are in operation all over the world, using a new technology that delivers great tasting coffee, low emissions, and the lowest operating costs when compared to conventional roasters.



WHY BUY A LORING ROASTER?

The Sustainable Coffee Roaster

Loring roasters reduce fuel costs by up to 80% compared to conventional roasters by eliminating smoke and odor during the roasting process* without an external afterburner or filtration.

- » This reduction in fuel provides an equally dramatic reduction in greenhouse gas emissions.

The Flavor-Lock Roast Process™ Technology

Loring roasters are designed with the Flavor-Lock Roast Process Technology which produces a brighter, cleaner cup.

- » The roasting chamber evacuates oxygen from the roast atmosphere and increases humidity which acts to preserve more of the flavor in each bean.
- » Flavor is further protected from coasting by the high speed cooling feature in the tray.

The Accurate Reproduction of Roast Profiles Every Time

Loring roasters achieve true consistency with agile digital controls and repeatable roast profiles.

- » The atmosphere in the roasting chamber is stabilized so roasts can be accurately repeated regardless of the weather (temperature, humidity, barometric pressure).

The Ease of Local or Remote communication for Control of the the Roast and Reports

Loring Roasters send data and allow real-time control of the roast, locally on the panel or remotely via your iPad, smart phone or computer.

- » The system also sends an email at the conclusion of every roast with all of your roast data gathered at 6 second intervals which includes time, bean temperature, inlet and return air temperature, burner setting and more.

The Minimal and Easy Maintenance, Safety Features and Compact Design

Loring roasters require less time and energy for maintenance than other roasters and conserve space with the smallest footprint in the industry.

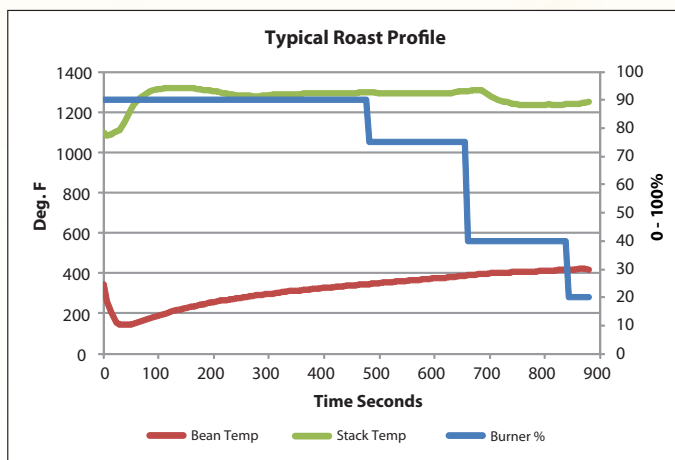
- » All motors are single tasked, removed easily and have quick disconnects for electrical connections and there are no exposed belts or chains.
- » The roast chamber, cyclone and main exhaust stack never need cleaning; the roast process helps prevent the build-up of 'tar' in the exhaust stack and drum, reducing fire hazards. Periodic cleaning is required for the cooling tray vent.

Standard On All Loring™ Roasters:

- » Flavor-Lock Roast Process™ Technology:
 - Very low oxygen roast atmosphere protects natural flavors
 - Smokeless, odorless exhaust during roasting*
 - High-speed cooling tray and air cool system
 - Profile Roasting: Unlimited number of profiles can be captured during roasting or manually created; precise tracking of profile curve
- » Controls: Touch screen and PLC provide precise operation of burner and fan speeds
- » Communications: Download roast data and upload software updates via internet; remote control roasting via laptop, iPad, etc.
- » Fuel: Natural gas or propane
- » Roast Time Range: 10 to 16 minutes (typical)
- » Safety Features: Self-cleaning roast chamber and exhaust stack; water quench into cyclone and chaff bucket
- » Rugged stainless steel construction, superior motors, drives and controls throughout for low maintenance and long life

*Depending on roaster model, batch size, and the darkness of your roast, it is possible that some visible smoke will be emitted from the cooling tray.

Energy Efficient Operation



Loring roasters deliver great tasting coffee, lower emissions, and the lowest operating costs when compared to conventional roasters.



BTUs	MBTU per Day (8 hrs)	MBTU per Year (48 Weeks)	NG 1000 SCFT (1050 BTU/SCFT)	Capacity Coffee Tons per Year (48 Weeks)
S70	2.9	685	653	467
S35	1.4	327	312	233
S15	0.7	164	156	100

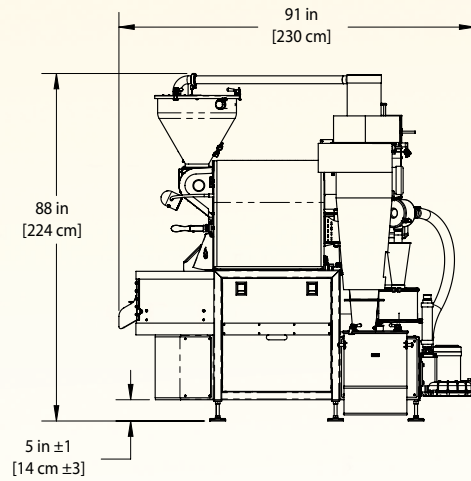
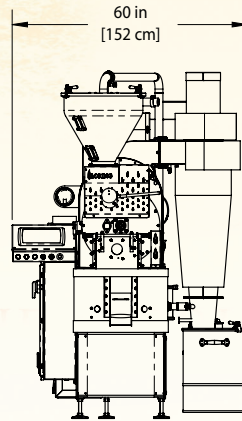
Roast Segment Minutes	1	2	3	4	Idle	Roast Time Minutes	Cycle Time Minutes
Duration	8	3	3	1	4	15	19
Burner %	90	75	20	20	20		
BTUs Used						Total BTUs	BTUs/Lb
S70	74,000	23,000	6,000	2,000	8,000	113,000	741
S35	36,000	11,000	3,000	1,000	3,000	54,000	700
S15	16,000	5,000	2,000	1,000	3,000	27,000	796

Note: Results can vary and are dependent on many individual choices such as the type of green beans roasted, the chosen roast profile and the amount of idle time during production.

"I'M VERY HAPPY WITH THE LORING SMART ROASTER BECAUSE I GET THE EXACT RESULTS I WANT. IT GIVES A MORE CONSISTENT ROAST FROM BATCH TO BATCH AND ROASTS VERY CLEAN, PROVIDING A TRANSPARENT TASTE AND FLAVOR PROFILE. IT IS A QUALITY MACHINE, BUILT TO LAST." GEORGE HOWELL, GEORGE HOWELL COFFEE COMPANY, ACTON, MA

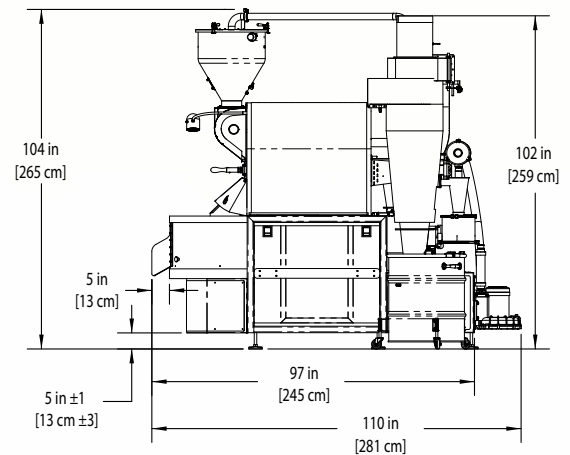
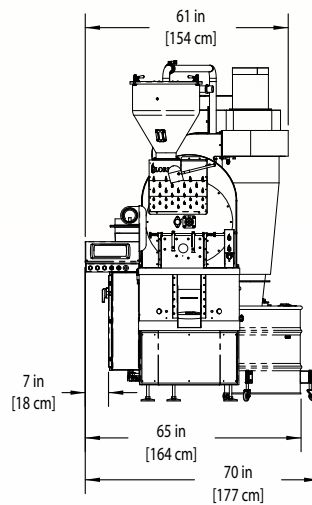
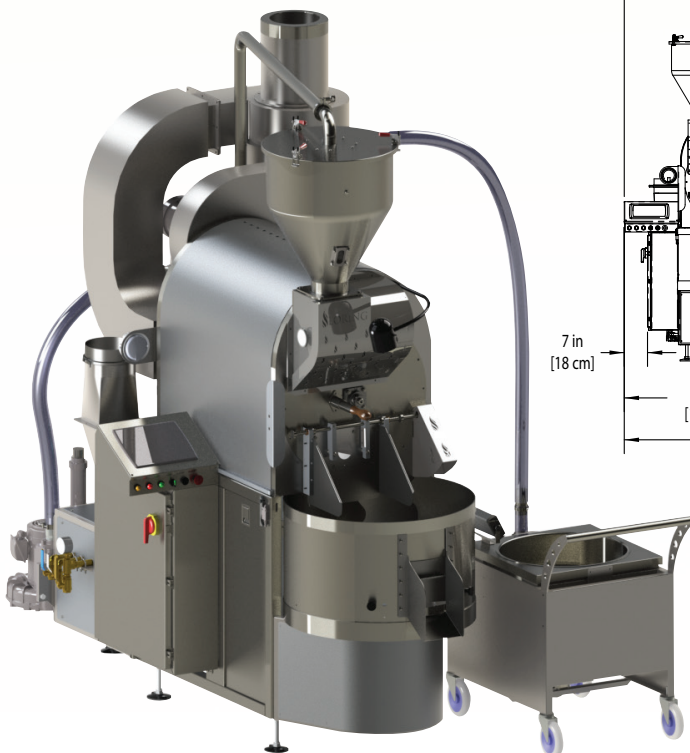


S15 Falcon™ Roaster



- » Convection Roaster with Paddle Stirring; includes Auto-Discharge door and Vacuum Green Bean Lift
- » 15 kg Batch Capacity
- » Footprint of 37.9 ft² (3.5 m²)
- » *Optional:* Green Bean Cart with Scale

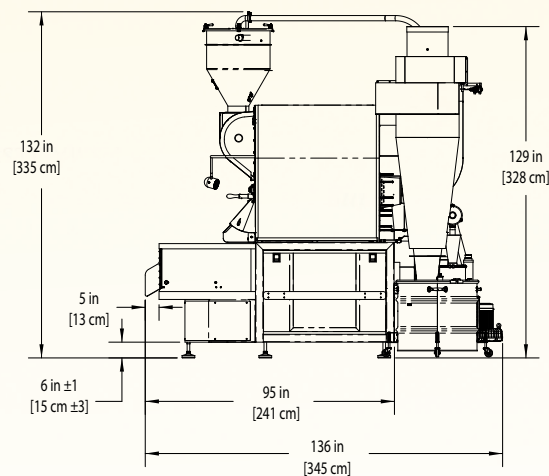
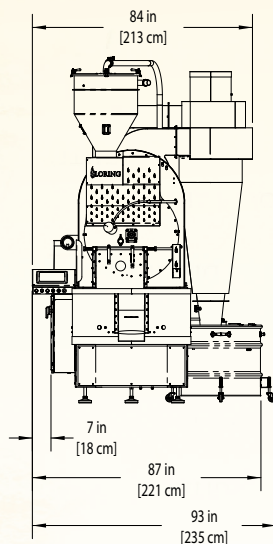
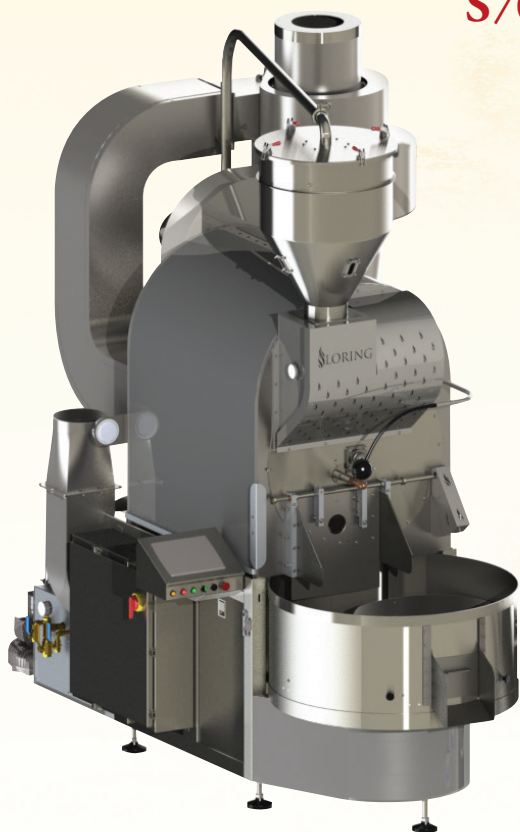
S35 Kestrel™ Roaster



GREEN BEAN CART NOT SHOWN

- » Convection Roaster with Paddle Stirring; includes Auto-Discharge Door, Vacuum Green Bean Lift & Green Bean Cart with Scale
- » 35 kg Batch Capacity
- » Footprint of 49.6 ft² (4.6 m²)

S70 Peregrine™ Roaster



GREEN BEAN CART NOT SHOWN

- » Convection Roaster with Paddle Stirring; includes Auto-Discharge Door, Vacuum Green Bean Lift & Green Bean Cart with Scale
- » 70 kg Batch Capacity
- » Footprint of 87.8 ft² (8.1 m²)

C35 and C70 Green Bean Carts have a built-in scale and vacuum lift attachment for gentle loading of the roaster.



C35 Green Bean Cart

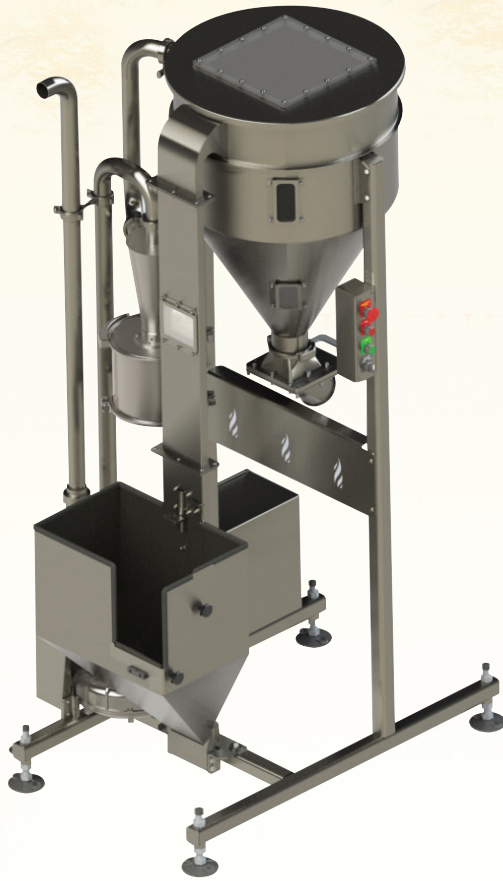


C70 Green Bean Cart

“THE SAVINGS IN ENERGY COSTS ARE REAL. THE REDUCED TIME AND EXPENSE ON MAINTENANCE AND CLEANING REDUCE OUR COSTS. BUT I KEEP COMING BACK TO THE QUALITY OF OUR FINAL PRODUCT. OUR COFFEE IS SIMPLY BETTER WITH THE LORING SMART ROASTER.”

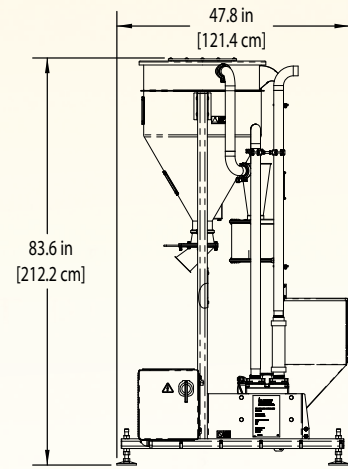
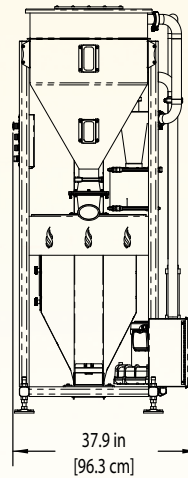
MICHAEL NIXON, WANDERING GOAT COFFEE

D35 and D70 Destoner

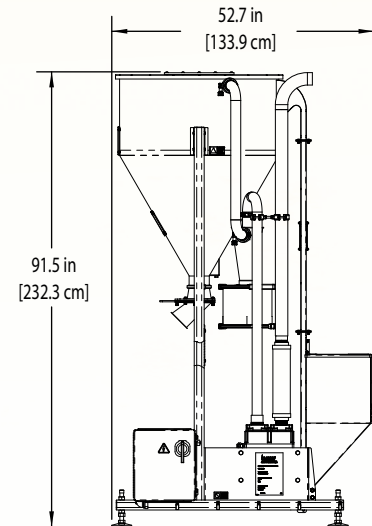
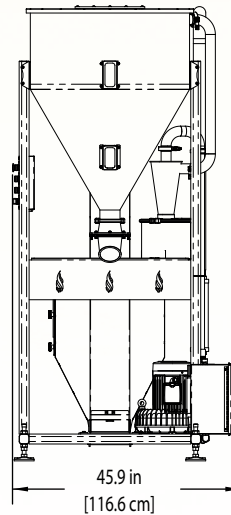


- Rugged stainless steel frame, chute and hopper
- Self-modulated feeding for unattended operation; will not clog or jam
- Fast transfer; rated lift time is typically 2-3 minutes depending on bean size and density
- Built-in cyclone filter dust collection system
- Easy access to stone collection drawer
- Perfect alignment for the transfer of beans from the cooling tray of the matching Loring roaster; roaster cooling tray rotates smoothly to work with the destoner and away for non-destoner operations
- Conveniently located operator panel with variable speed settings to accommodate different bean sizes and densities
- View windows in both chute and hopper

D35



D70



D35 and D70 Destoner Technical Specifications

	Rated Batch	Typical Processing Time	Pairs with Loring Roaster	Width	Depth	Height	Weight	Power Options
D35	35 kg	125 sec	S35 Kestrel	37.9 in 96.3 cm	47.8 in 121.4 cm	83.6 in 212.2 cm	420 lb 190 kg	1 Phase or 3 Phase
D70	70 kg	200 sec	S70 Peregrine	45.9 in 116.6 cm	52.7 in 133.9 cm	91.5 in 232.3 cm	540 lb 245 kg	3 Phase

Specifications

Roaster Specifications	S15	S35	S70
Maximum Batch Size	33 lb (15 kg)	77 lb (35 kg)	154 lb (70 kg)
Minimum Batch Size	6.6 lb (3 kg)	15.4 lb (7 kg)	30.8 lb (14 kg)
Nominal Electrical Power	2.8 kW	3.7 kW	8.6 kW
Peak Electrical Power	5.8 kW	6.6 kW	17.5 kW
Maximum BTU Rating	130,000 BTU/h (33,000 kcal/h)	300,000 BTU/h (76,000 kcal/h)	620,000 BTU/h (156,000 kcal/h)
Stack Rated Temperature	1,400°F (760°C)	1,400°F (760°C)	1,400°F (760°C)
Stack Max Rated Temp (intermittent)	1,500°F (816°C)	1,450°F (788°C)	1,550°F (843°C)
Stack Max Flow	22 dscfm (37 dsm ³ /h)	52 dscfm (88 dsm ³ /h)	107 dscfm (182 dsm ³ /h)
Stack Max Flow (Peak Air Cool)	310 dscfm (527 dsm ³ /h)	450 dscfm (765 dsm ³ /h)	950 dscfm (1,614 dsm ³ /h)
Stack Duct Diameter (Minimum)*	6 in (152 mm)	8 in (203 mm)	10 in (254 mm)
Stack Duct Wall Type	Double or Triple Wall 316 Stainless	Double or Triple Wall 316 Stainless	Double or Triple Wall 316 Stainless
Cooler Vent Max Flow	980 scfm (1,665 sm ³ /h)	1,560 scfm (2,650 sm ³ /h)	2,180 scfm (3,704 sm ³ /h)
Cooler Duct Diameter	6 in (152 mm)	8 in (203 mm)	10 in (254 mm)
Water Supply	1 GPM (4 liter/min)	1 GPM (4 liter/min)	1 GPM (4 liter/min)
Water Pressure	50 psi (345 kPa)	50 psi (345 kPa)	50 psi (345 kPa)
Compressed Air Flow	4 CFM (0.1 m ³ /h)	4 CFM (0.1 m ³ /h)	4 CFM (0.1 m ³ /h)
Compressed Air Pressure	60 psi (414 kPa)	60 psi (414 kPa)	80 psi (552 kPa)
Natural Gas Pressure	4-7 in WC (1.0-1.7 kPa)	4-7 in WC (10669 kPa)	4-7 in WC (10669 kPa)
Propane Gas Pressure	11-13 in WC (2.7-3.2 kPa)	11-13 in WC (10724 kPa)	11-13 in WC (10724 kPa)
Weight	1,500 lb (680 kg)	2,100 lb (953 kg)	3,800 lb (1,724 kg)

*Larger stack diameters may be required based upon stack geometry



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