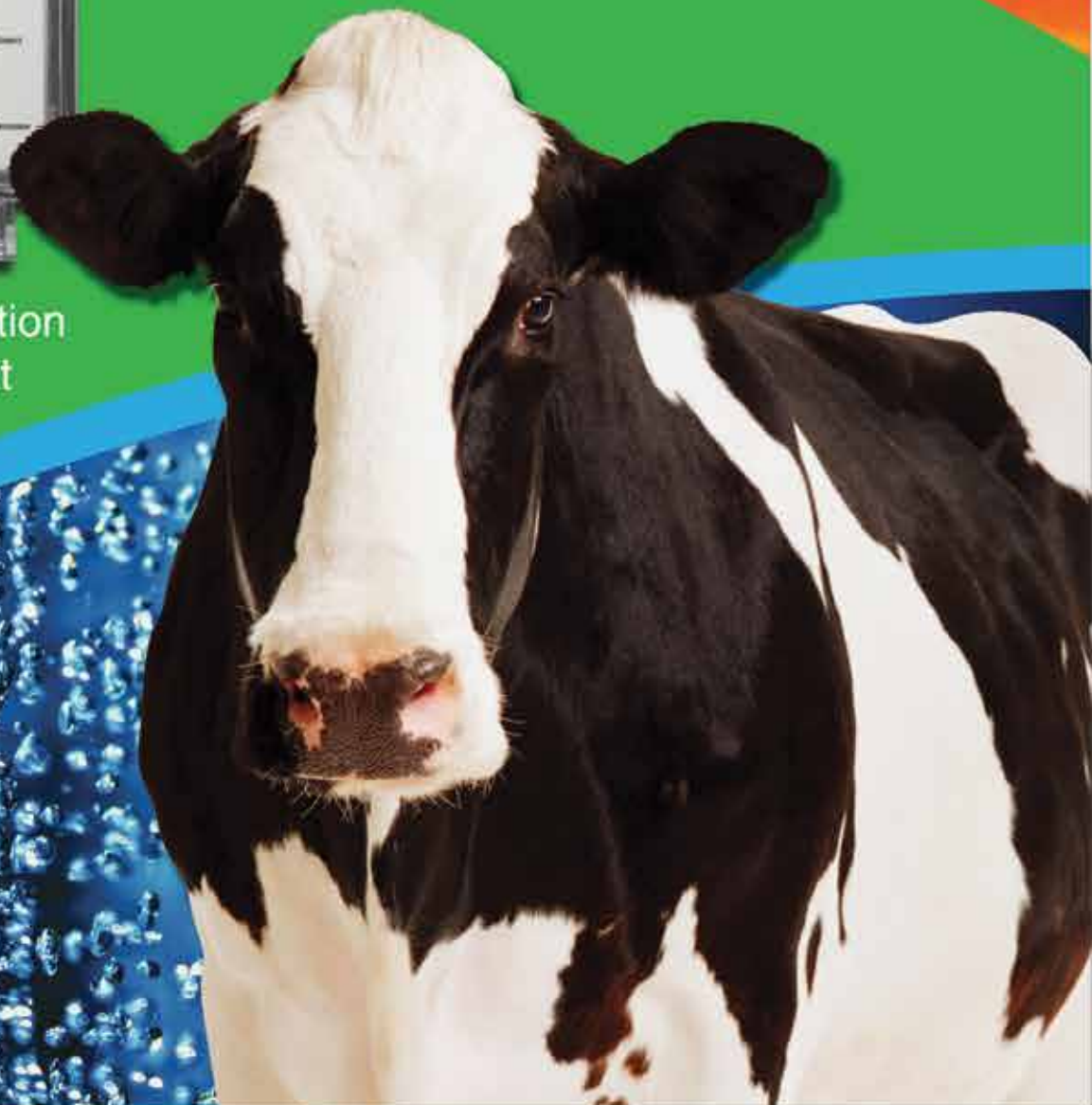


# Edstrom

## Cooling Systems For Dairy Cattle



The Complete Solution  
To Beat The Heat







**Holding Pen Soaking**



**Feed Line Soaking**



**Exit Lane Soaking**

# The Heart of Intermittent Shower Cooling Systems

The Edstrom Controllers monitor the temperature and regulate the shower cycles in livestock production facilities. The controller is the heart of the system and makes the best use of your resources to help keep livestock comfortable, healthy and productive.

## C-110S Controller Single-Zone Cooling

The C-110S controller offers easy to use controls and dual mode settings for use in freestall barns and holding pens.

The C-110S controller is easily mounted to an inside wall. The controller can be utilized throughout the year to serve as a convenient temperature gauge. The unit will plug into a standard 120 VAC outlet via an included transformer.



**C-110S Controller**

### Step 1

## Holding Pen Soaking

Soaking the cows in the holding pen is one of the most cost effective things you can do on your dairy. High producing dairy cows create a lot of body heat that must be eliminated. When the cows are crowded together in the holding pen the problem escalates quickly.

A fully automated system provides relief any time the temperature warrants it, and eliminates the guess work of manually-operated systems.

### Step 2

## Feed Line Soaking

Soaking the cows at the feed line allows them to have access to cooling throughout the day and encourages maximum dry matter intake. Cows stay healthy, productive and profitable!

The C-440S Controller allows you to cool 4 zones in sequence to reduce demands on your water supply system. Smart Mode technology automatically adjusts the cooling cycles as the conditions change throughout the day or season.



# the System



C-440S Controller

## C-440S Controller Multi-Zone Cooling

The C-440S controller manages up to four electronic solenoid valves activated in sequence. This helps reduce the amount of water consumption used at one time by splitting a barn into multiple zones. The Smart Mode setting automatically adjusts the duration of shower cycles to accommodate changes in temperature, reducing waste and optimizing performance.

The C-440S allows for the choice of how many solenoid valves are operated, and the number of temperature sensors to be monitored. Once the settings are entered, they are saved automatically and will remain in the controller's memory even if power is lost or interrupted.



## Edstrom Course Droplet Soaker Nozzles

High-capacity Edstrom soaker nozzles produce a coarse droplet spray which penetrates the hair and wets the cow to the hide. Edstrom soaker nozzles operate at reduced water pressure of 10 to 20 psi. The water is then allowed to evaporate, pulling heat from the animal, just like sweating. Air movement across the wet hide, provided by fans, makes this system most efficient.

### Step 3

## Exit Lane Soaking

Soaking the cows as they exit the parlor or as they travel between barns keeps them cool and comfortable at all times and sends them back to the feed and water refreshed and ready to eat.

Cool Sense™ by Edstrom is a fully automated system that utilizes dual motion sensors to determine when a cow is walking beneath it. Eliminate wasted water while still soaking each cow at the most opportune time!



## Cool Sense™ Motion Cooling System

The Cool Sense motion cooling system is an effective and efficient way of keeping dairy cattle cool when temperatures rise. Cooling is achieved by automatically showering dairy cattle with a coarse droplet shower. Showering cattle immediately after milking helps reduce heat stress, which in turn increases their feed and water consumption - driving milk production.

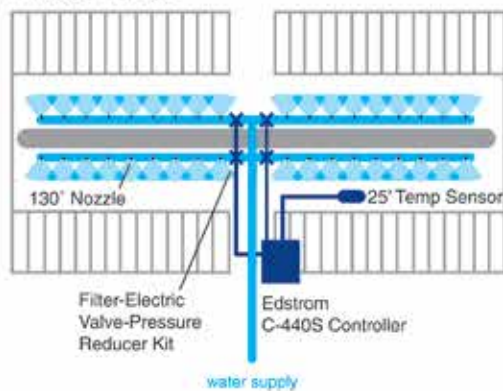
The Cool Sense controller activates a shower when the temperature probe detects a temperature above the set point, and the dual motion sensors detect that a cow is passing through the lane. The cow is then refreshed as water evaporates from the hide and draws heat from the animal, providing relief.

- Easy, economical installation and operation - quick return on investment
- Control the amount of water used by adjusting the shower time
- Adapts to various lane widths and barn configurations
- Unidirectional or bidirectional options

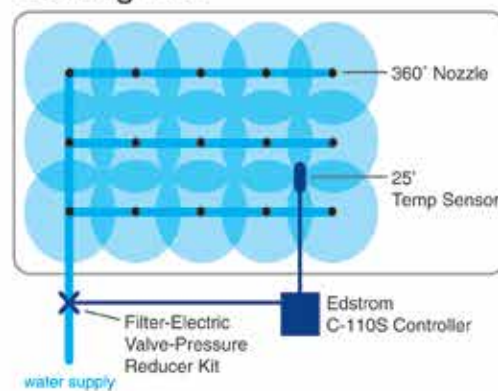
## Two-year factory warranty on all controllers!



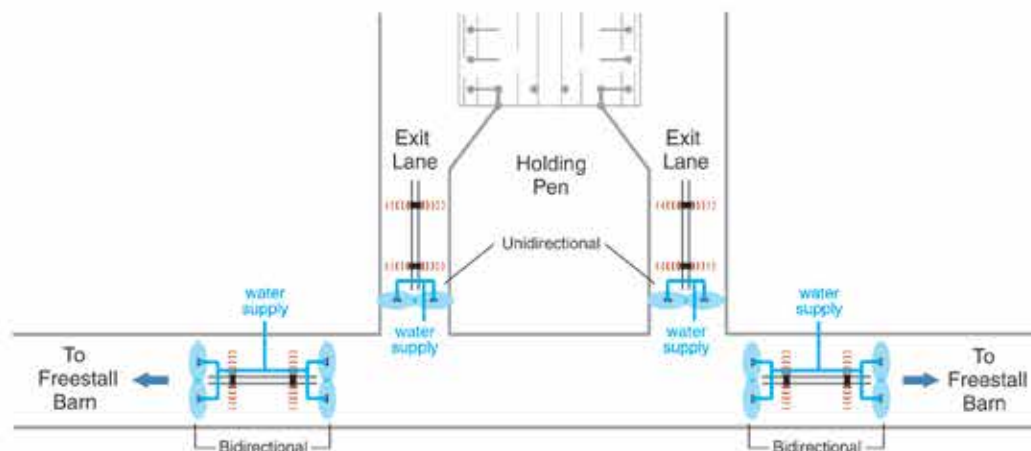
## Feed Line



## Holding Pen



## Cool Sense™ – Motion Cooling System



Pipe (in. dia.)	Flow Rate (gpm)	10	20	30	40	50	100
0.50							
0.75	60						
1.00	180	40					
1.25	700	200	100	60			
1.50	1500	400	200	120	80		
2.00	5000	1400	660	400	240	80	
2.50	12000	3300	1600	900	600	160	
3.00	43000	12000	5600	3300	2200	600	

**Table 1**

Recommended maximum distance in feet from well/water meter connection for PVC with limiting pressure drop to 5 psi.

Total Length	Distance from solenoid valve to last sprinkler nozzle (ft.)*			
	0 – 100	100 – 200	200 – 300	300 – 400
100	¾ in.**			
200	1½ in.	1 in.		
300	1½ in.	1½ in.	1 in.	
400	2 in.	1½ in.	1½ in.	1 in.
500	2 in.	2 in.	1½ in.	1½ in.

\* Based on water application rate of 0.06 gpm per foot length (0.03 gallons per square foot, wetted distance 6 feet, 3 minute sprinkler on-cycle)

\*\* Minimum recommended PVC pipe diameter for this section

**Table 2**

Recommended minimum PVC pipe diameter with limiting pressure drop to 5 psi.

# Edstrom

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