Reading Like a Content Insider

CTE/TECH ED

Economizer Options

Economizer systems essentially come in one of two configurations. The first uses a traditional supply-fan-and-return-fan design, with an outdoor-air intake damper, a return-air damper, and an exhaust-air damper (Figure 1). This type of system, sometimes called "push-pull," depends on the return fan to handle return-air-system losses and the supply fan to handle supply-air-system losses. Economizers should be integrated (sequenced) with cooling-coil operation for best system efficiency and performance in constant-air-volume applications.

LEGEND:

AI = analog input
AO = analog output
BDD = Backdraft damper
cfm = cubic feet per minute
DP = differential pressure (inch water column or pounds per square inch differential)
EA = exhaust air
F = flow
M = motorized (actuator)
OA = outdoor air
RA = return air
SA = supply air
Vel = velocity (feet per minute)
VSD = variable-speed drive

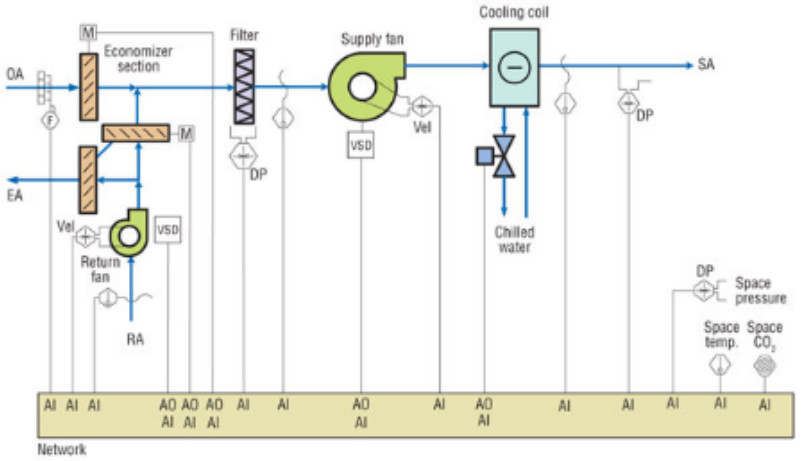

FIGURE 1. Digitally controlled variable-air-volume air-handling unit with return/exhaust economizer.

Identify the reading behaviors used with this text.

SOCIAL STUDIES

"Thumbs up, you enhance your reputation for compassion. Thumbs down, you satisfy your base."

Identify the reading behaviors used with this text.

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Science

Enzyme Concentration

In order to study the effect of increasing the enzyme concentration upon the reaction rate, the substrate must be present in an excess amount; i.e., the reaction must be independent of the substrate concentration. Any change in the amount of product formed over a specified period of time will be dependent upon the level of enzyme present. Graphically this can be represented as:

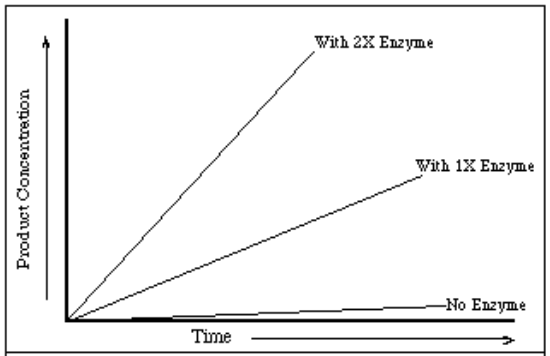

FIGURE 4
"Zero order" reaction rate is independent of substrate concentration.

These reactions are said to be "zero order" because the rates are independent of substrate concentration, and are equal to some constant k. The formation of product proceeds at a rate which is linear with time. The addition of more substrate does not serve to increase the rate. In zero order kinetics, allowing the assay to run for double time results in double the amount of product.

Identify the reading behaviors used with this text.

Literature

Bradbury, Ray. *Fahrenheit 451.* New York: Ballantine, 1987. (1953)
From Part 1: "The Hearth and the Salamander"

It was a pleasure to burn. It was a special pleasure to see things eaten, to see things blackened and changed. With the brass nozzle in his fists, with this great python spitting its venomous kerosene upon the world, the blood pounded in his head, and his hands were the hands of some amazing conductor playing all the symphonies of blazing and burning to bring down
the tatters and charcoal ruins of history. With his symbolic helmet numbered 451 on his stolid head, and his eyes all orange flame with the thought of what came next, he flicked the igniter and the house jumped up in a gorging fire that burned the evening sky red and yellow and black. He strode in a swarm of fireflies. He wanted above all, like the old joke, to shove a marshmallow on a stick in the furnace, while the flapping pigeon-winged books died on the porch and lawn of the house. While the books went up in sparkling whirls and blew away on a wind turned dark with burning. Montag grinned the fierce grin of all men singed and driven back by flame. He knew that when he returned to the firehouse, he might wink at himself, a minstrel man, burnt-corked, in the mirror. Later, going to sleep, he would feel the fiery smile still gripped by his face muscles, in the dark. It never went away, that smile, it never ever went away, as long as he remembered.

Identify the reading behaviors used with this text.