# Sequence **Draft Control**®





# IMPROVING EFFICIENCY AND PERFORMANCE

FULLY ENGINEERED VENTING SYSTEMS FOR MULTIPLE BOILERS

## **ENGINEERED FOR PEAK PERFORMANCE**



### Building owners pay a premium for high-efficiency boilers and water heaters to save energy and money.

Unfortunately, just starting up the equipment doesn't ensure they'll perform at their ideal Category IV performance rating. A complete, engineered venting system is a critical part of the equation — and Schebler's Sequence Draft Control<sup>®</sup> (SDC) design service is the answer.

SDC maintains the desired condensing dew point of combustion, preventing excess draft, which impacts efficiency and fuel/air ratios — especially with high turndown modulating burners.

### VERSATILE DRAFT CONTROL Hybrid systems utilizing condensing and non-condensing boilers are an ideal match for Sequence Draft Control<sup>®</sup>.

Each appliance outlet pressure is individually monitored and controlled to obtain the highest level of overall performance. Each damper has a dedicated circuit, so only one appliance would be affected should a failure occur, ensuring full operation of other appliances.

The versatile SDC design is well suited for all venting categories, including I, II, III and IV.



## **ACHIEVE COMBUSTION EFFICIENCY**

Five to ten percent excess air is required to reach peak efficiency for natural gas -burning boilers and hot water heaters. SDC controls excess air to achieve the desired increased efficiencies.



This graph illustrates when fuel and oxygen from the air are in perfect balance.

Source: Engineering Toolbox



This drawing illustrates a common

## **ACCOUNT FOR OUTSIDE CONDITIONS**

Schebler eVent® Series modulating dampers with pressure transducers are located at the outlet of each appliance to always maintain factoryrecommended firebox positive pressure or negative draft condition.



#### The Damper Accounts For:

Appliance firing rate — anywhere between high fire and low fire

#### Stack temperature

Outside air temperature

#### Other operational anomalies, such as summer/ winter operation and appliance proximity to the common stack

Sequence Draft Control<sup>®</sup> also improves system start-up by reducing draft conditions during ignition. The damper is placed in a pre-purge position to allow easy ignition and eliminate flame failure conditions which are typical in common vented systems.



## **STABILIZE EXHAUST FLOW**

### Systems with inadequate natural drafts must stabilize the flow.

They may do this by utilizing Schebler's WingFan draft inducer to ensure stable exhaust flow regardless of the number of appliances operating or firing rates. A breeching-mounted pressure sensor monitors and maintains stack pressure while a VFD controls draft inducer speed.



DESIGNED TO MEET TODAY'S HIGH-EFFICIENCY BOILER AND HOT WATER HEATER EXHAUST VENTING REQUIREMENTS, SEQUENCE DRAFT CONTROL<sup>®</sup> PROVIDES MAXIMUM EFFICIENCY WHILE ALSO MAKING INSTALLATION MORE EFFICIENT, LOWERING ENERGY CONSUMPTION AND INCREASING BOILER LIFE.

CONTACT SCHEBLER FOR MORE INFORMATION, INCLUDING HELP WITH CUSTOM ENGINEERING AND DESIGN SOLUTIONS.

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