

ENGINEERING DATA



Model RC Barometric Draft Control Damper

Model Number: 4" - 9" RC/RCBT



RC Draft Control Damper



RCBT Draft Control Damper with Tee

ITEMS INCLUDED IN KIT

- Barometric Draft Control

WHEN SHIPPED WITH A COLLAR ADDITIONAL ITEMS:

- Mounting Straps
- Collar
- Mounting Hardware

DESCRIPTION

OIL OR COAL - RESIDENTIAL AND COMMERCIAL

The Field Controls RC Barometric Draft Control Damper is designed to maintain a constant draft by counteracting the negative forces caused by changes in temperature and barometric pressure, as well as effects of wind on an oil, gas and/or coal-fired heating appliance. Proper operation of an heating appliance requires the draft to remain constant. When it is, combustion is more complete, fuels are utilized efficiently, and money is saved. The Field Controls RC Barometric Draft Control Damper is furnished as standard equipment on many leading brands of oil or coal-fired heating equipment. It is calibrated to allow for easy adjustment to the furnace or boiler manufacturer's specifications. Designed for settings from .02" to .08", this control is so sensitive that instrumentation should be used when adjusting the unit during installation.

HOW A DRAFT CONTROL WORKS

Static pressure of the cool air (1) Illustration A exerts pressure on the outside of the furnace or boiler, the breaching, and stack. The pressure difference between the room air and heated gas (air) causes products of combustion (2) to flow (draft) through the unit and rise through the breaching and chimney.

Room temperature air (3) enters through the barometric draft control (4) in the precise amount needed to overcome the excess drafts caused by temperature variations, wind fluctuations, and barometric pressure changes.

Combustion of fuel is complete and the process is stabilized. The velocity of combustion gases through the heat exchanger is slowed so more heat is extracted. The unit operates more efficiently, reliably, and requires less maintenance.

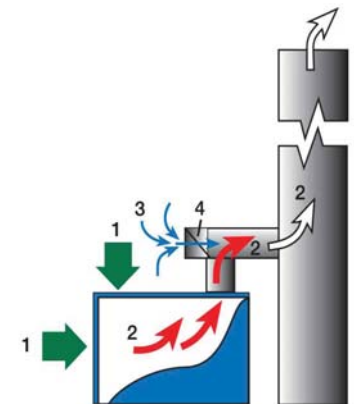


ILLUSTRATION A

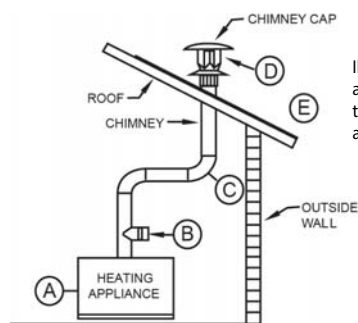


Illustration B demonstrates how pressure changes as air/gases flow through the appliance (A), past the draft control (B), through the vent pipe (C) and outside the building (D/E)

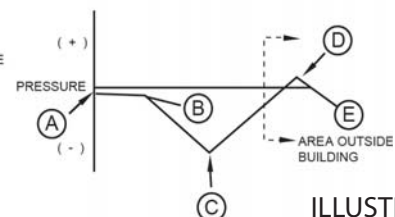


ILLUSTRATION B



Field Controls
2630 Airport Road
Kinston, NC 28504

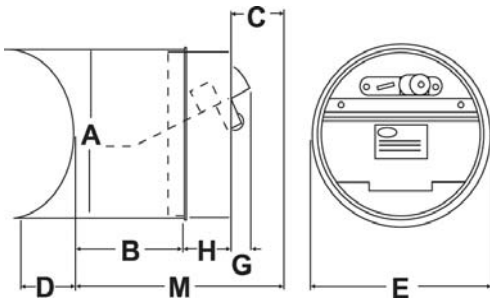
Customer Service: 252 522-3031
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Visit us at: www.fieldcontrols.com

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ENGINEERING DATA RC

DIMENSIONS



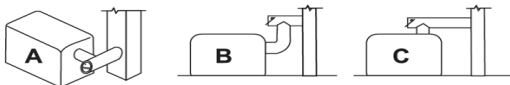
Model	Control Size	Nominal Capacity Sq. In.	Recommended Pipe Sizes (in.)		Dimensions (inches)							
			Dia.	Circum.	A	B	C	D	E	G	H	M
4" RC/RCBT	4	12.6	3-4-5	9 ½ to 15 ¾	4	2 ½	2	2 ¾	4 ¾	1	2 ½	7
5" RC/RCBT	5	19.6	4-5-6	12 ½ to 19	5	2 ½	2	2 ¾	5 ¾	1	2 ½	7
6" RC/RCBT	6	28.3	5-6-7	15 ¾ to 22	6	1 ¾	3	2	6 ¾	1	2 ¾	7 ¾
7" RC/RCBT	7	38.5	6-7-8	19 to 25 ¼	7	2 ¾	3 ½	2 ½	7 ¾	1	2 ¾	8 ¾
8" RC/RCBT	8	50.3	7-8-9	22 to 28 ½	8	4 ¾	4	3 ¾	8 ¾	1 ½	2 ¾	11
9" RC/RCBT	9	63.6	8-9-10	25 ¼ to 31 ½	9	5 ¾	4 ½	3 ¾	9 ¾	1 ½	2 ¾	12 ¼

RCBT is recommended for wood and coal burning applications or anytime black pipe is preferred.

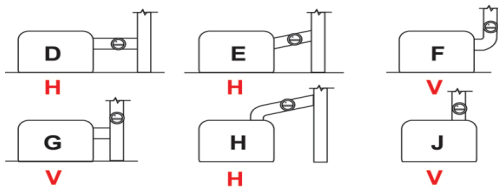
MATERIAL GAUGES

SIZE	4"	5"	6"	7"	8"	9"
RING	22	24	24	22	20	20
GATE	24	24	24	24	20	20
COLLAR	26	26	26	26	26	26

Gas-Fired Systems



Oil or Solid Fuel Systems



V=Vertical H=Horizontal

FIGURE 1

INSTALLATION OPTIONS

RECOMMENDED LOCATIONS FOR FIELD DRAFT CONTROLS

For gas-fired equipment, the preferred location of the control is on the bull head tee. This location provides maximum relief of downdrafts with minimum positive pressure. (See Fig. 1, Dia. A-C)

With oil or solid fuels, the bull head tee is not recommended, so locate the control as shown. (See Fig. 1, Dia. D-J) These locations are acceptable for gas units as well. Except on forced draft systems, locate the control as close as possible to the furnace or boiler, at least 12" beyond a stack switch on oil-fired units, and at least 18" from a combustible ceiling or wall.

MULTIPLE APPLIANCE LOCATION RECOMMENDATIONS

Commercial and industrial furnaces and boilers are frequently installed in multiples. (See Fig. 2) Use a draft control for each boiler located on the uptake between the smoke outlet and the breaching (location A). When this uptake is too short to permit the installation of a control, locate a separate control for each boiler on the main breaching (location B). If neither of these locations is possible, use a single large control in the breaching between the chimney and the nearest boiler (location C).

Where several units are vented into a common breaching, the most draft-critical should vent highest in, or be placed closest to the chimney. Incinerators should generally be placed farthest from, or vented lowest in the chimney.

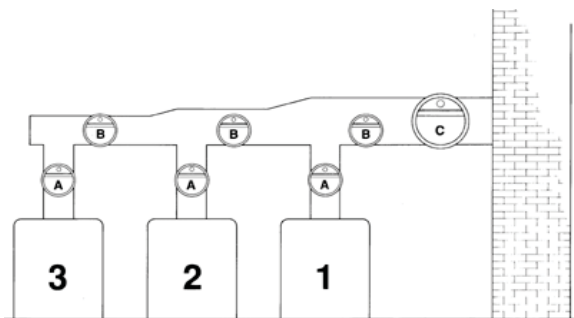


FIGURE 2



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PROJECT INFORMATION

Quoted by:	Date:
Project:	Remarks:
Quantity:	
Model:	
Site:	
Architect:	
Engineer:	
Contractor:	