Residential air leakage measurement system comparison:
Retrotec door fan & Minneapolis blower door

Use this guide to compare features of the two top US manufacturers.

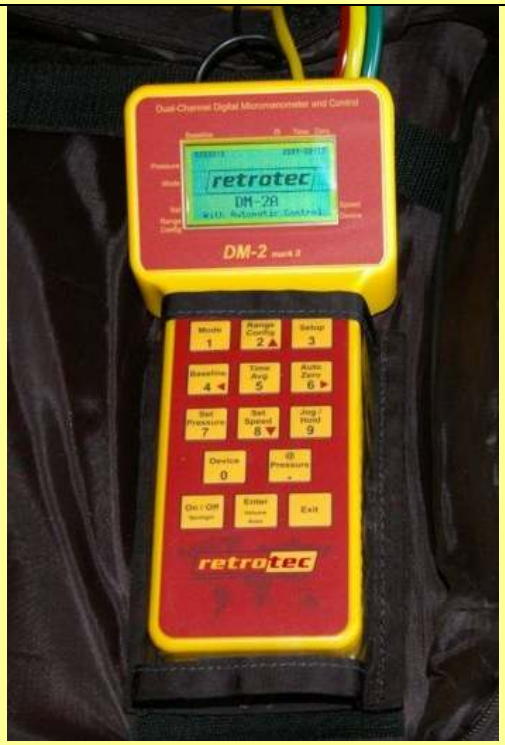
Retrotec Model Q46 door fan

Minneapolis Model 3 blower door

The Companies		
	Retrotec	The Energy Conservatory
Company founded :	1980	1981
CEO:	Colin Genge	Gary Nelson
Manufactured in:	Everson, WA, USA	Minneapolis, MN, USA
Primary applications:	• Residential • Residential marketing • Commercial • Industrial • Fire-suppressant containment • Smoke containment	• Residential
Large notable customers:	• Industrial such as Siemens & Tyco • Community Action Programs	• Community Action Programs • Low Income weatherization agencies in most States.
Warranty	Two years	Two years

The Door Panels		
Both have: * extruded aluminum frame * nylon cloth * Velcro tabs * rubber gaskets	  • Numbered frame pieces • Red anodized	  • Black anodized
Frame Width: w/ Extensions:	29.5 – 41.5 in (75 – 105.4 cm) 37 – 48 in (76 – 122 cm)	24 in. to 40 in. (61 cm to 101 cm)
Cam lever and knobs:	 • Molded plastic cam lever • Rubber knob	 • Molded plastic cam lever and knob

The Digital Gauges

	Retrotec DM-2 digital gauge	Minneapolis DG-700 digital gauge
The Retrotec DM-2A design has been around since 2006. Its firmware can be easily updated to take on new improvements. The Minneapolis DG-700 gauge has been around since 2000 and is widely used. Its screen display is fixed.		 Courtesy of the Energy Conservatory, Minneapolis, MN
Gauge to distance:	20 feet standard. Unlimited using Ethernet cable or umbilical extensions.	1 foot
Accuracy:	1% of pressure reading or 0.15 Pa, whichever is greater.	1% of pressure reading or 0.15 Pa, whichever is greater.
Result modes:	Channel A: • Pressure in Pascals, inches H_2O, lb/ft^2 Channel B: • Pressure in Pascals, inches H_2O, lb/ft^2 • Flow in cfm, l/s, m^3/s, m^3/h • Flow @ (any pressure) calculates flow at ANY desired pressure configured in Setup menu. • Leakage Area – EqLA (Canadian) EfLA (US) in cm^2, in^2, ft^2 • Leakage Area @ (any pressure) calculates EqLA at ANY desired pressure configured in Setup menu	Channel A: • Pressure in Pascals, inches H_2O Channel B: • Pressure in Pascals, inches H_2O • Flow in cfm, l/s, m^3/h • Flow @ (25 and 50 Pa) calculates flow at two pressures. • Leakage Area – EqLA (Canadian) in cm^2, in^2 • Leakage Area @ (25 and 50 Pa) calculates EqLA at two pressures.

Result modes (continued):	• Air-changes per hour according to volume entered on keypad • Permeability, flow per unit area in CFM/ft^2, liters/s/m^2, CFM/100 ft^2, m^3/h/m^2 according to area entered on keypad • EqLA and EfLA per unit area in, in^2/100ft^2, cm^2/m^2 according to area entered on keypad • Velocity in m/s, km/h, ft/s, ft/min, mph • Velocity-Flow in cfm, l/s, m^3/s, m^3/h according to cross-sectional area entered on keypad.	• Velocity in m/s, ft/s
Compatible Devices:	• Retrotec: DU-100 & DU-200 Duc-Tester fans • Retrotec: 600, 700, 800, 900, 2000, 3000 & 3000 SR fans • Minneapolis: Duct-Blaster • Minneapolis: Model 3(120V), Model 3(240V) and Model 4(240V) fans • Infiltec: Model E3 • Pitot tube	• Minneapolis: Duct-Blaster • Minneapolis: Model 3(120V), Model 3(240V) and Model 4(240V) fans • Minneapolis: Tru-Flow Grid • Pitot tube
Remembers settings:	Yes, goes back to last settings.	No, goes to default settings
Display:		
Batteries:	• 4-NiMH AA rechargeable batteries, supplied • AC power adapter included • Batteries rates for two years battery life. Rechargeable from the fan while in use	• 6 - AA alkaline batteries, supplied • AC power adapter optional • Batteries rates for over 100 hours continuous use
Time averaging:	Off, 1, 2, 4, 8, 10, 20, 60, 120 seconds.	1, 5, 10 seconds, and Long-Term (continuous update)

Auto zero:	Every 8 seconds	every 10 seconds
Backlight:	On with key press or continuous on	Manual on
Auto shut down:	Adjustable from menu	Two hours
Connections:	• Color coded pressure ports on top • Mini USB to computer 	• Brass connections on front • Serial port to computer 
Speed control:	• Manual with knob  • Control by computer • Set to % • TV remote style jog keys 	• Manual with knob  • Control by computer
Cruise control:	• Set to 0 or any pressure • Set to zero control, automatic	• Set to 0, 25 or 50 • set to zero control, one way
Extrapolation pressure:	• Adjustable to any pressure for any result • To any Set Pressure • Adjustable slope (*n*)	• 25 and 50 Pa • Fixed Slope, *n*=0.65
Laptop stand:	 • Included case can be used as laptop stand.	 • Optional laptop stand

The Fans		
	Model 2200	Model 3
Fan shell:		
Flow at 50Hz, Europe:	• 4800 CFM at 50Pa	• 4600 CFM at 50Pa
Flow at 60Hz, USA	• 5600 CFM at 50Pa Actual flows can vary	• 5300 CFM at 50Pa Actual flows can vary
Weight:	• 34 lb with 11 flow ranges	• 33 lb with three flow ranges
Fan blades:	• 8	• 6
GE Motor:	• 3/4hp, 1625 RPM @60Hz	• 3/4hp, 1625 RPM @60Hz
Motor mount:	• 8 bolts	• 4 bolts
Flow ranges:	• 11 flow ranges, included 	• 3 flow ranges included • 3 additional ranges optional 

Fan cross-section:		
	Double layer, foam filled	Single layer
Fan top:	 Status light confirms power and DM-2 connection.	 Reversing switch.
Flow connections:	Color coded to match tubes	Brass
Fan control:	Power (120 or 240V) using computer style power plug. Ethernet cable supplies speed signal to on-board speed controller.	Variable power (120 or 240V) using computer style power plug from remote speed controller attached to gauge.
Gauge to fan distance:	Unlimited. Use Ethernet style connections or optional umbilical extensions.	Limited by (120 or 240V) extension cord from gauge to fan.
	 Regulated triac circuit for steady speed control	 Triac circuit for speed control.