

Airtec

Air Diffusion Catalog 2010



MV RETRO	POLYMER AIR DIFFUSERS
MV CLASSIC	POLYMER AIR DIFFUSERS
MH TUFFBOX	REGISTER BOXES





HVAC air diffusion.
Evolution
style
& form
function.



HVAC Diffusers and accessories from Airtec

Reinventing HVAC ceiling diffusion.

With a patented one piece grille, box, damper combination and a lightning quick 73 second installation time, the MV Series of diffusers by Airtec is designed specifically for the job-site and the contractor. Compare the performance, fit, finish and the 80% reduction in installation time of our MV Classic to understand why they are quickly becoming the new industry standard.

For your premium installations and discriminating homeowners, MV Retro combines contemporary polymer construction with the appearance and feel of true antique cast iron styled diffusers, without the cost and weight.

Today, our evolution continues. Smart, strong MH TuffBox polymer register boxes and limited clearance polymer diffuser choices are proven to deliver quicker installation time and more job site options than their cumbersome metal counterparts.

We don't waste your time. We save you time and keep you ahead of your competitors. Go with Airtec, the leader in high-tech quick install polymer diffusers and accessories.

Our patented 73 second

MV Classic

GRILLE • DAMPER • BOX



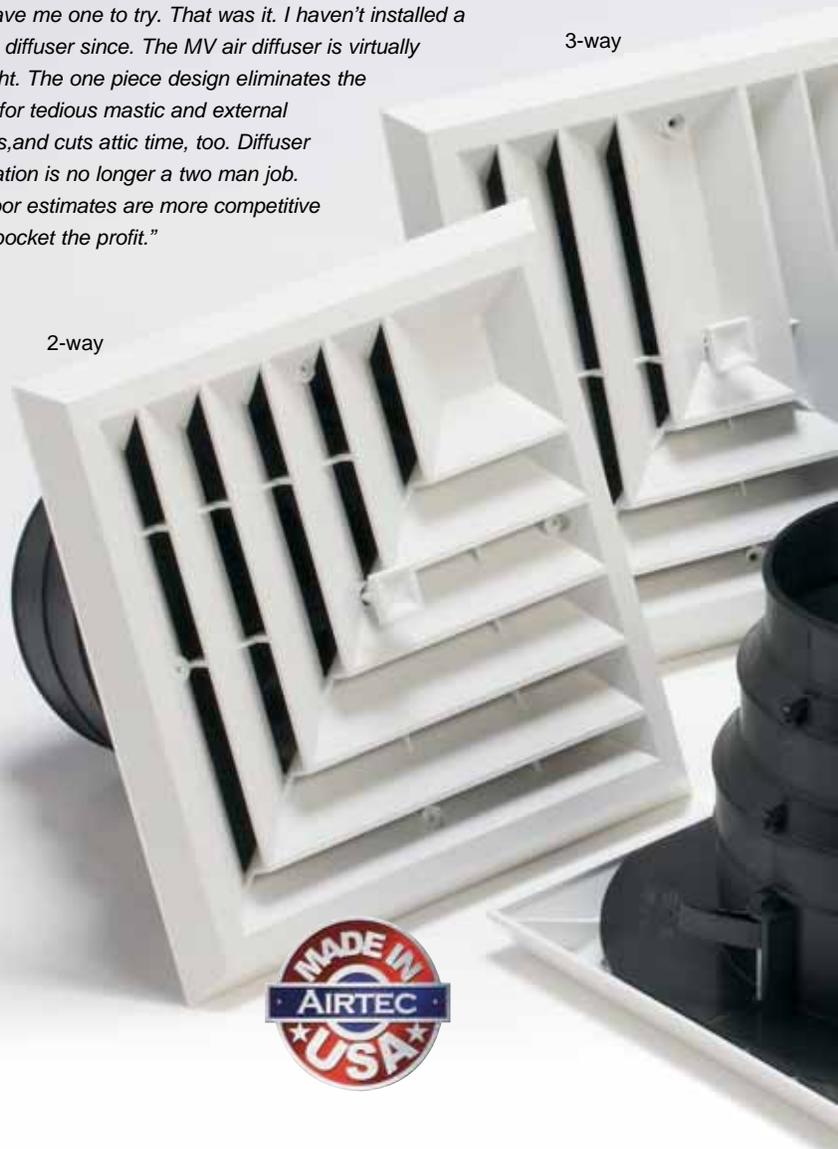
Think fast.

Work smart.

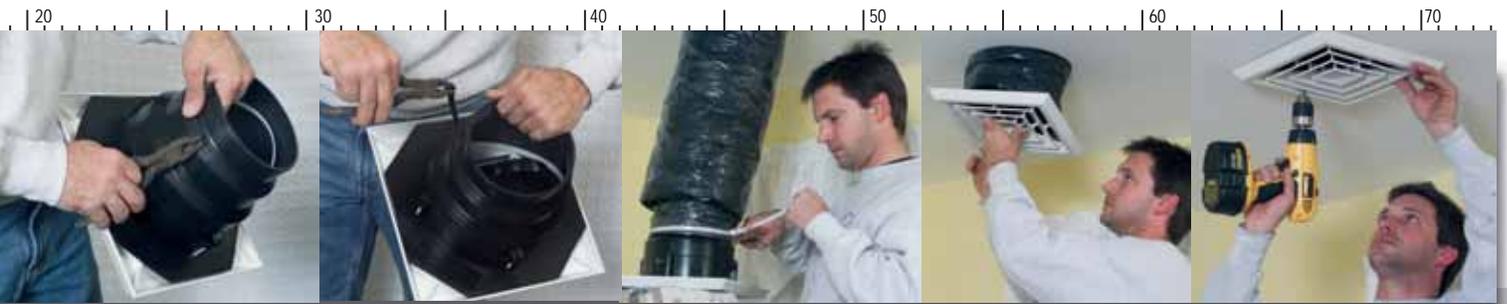
"My distributor told me about the MV 73 second diffuser install. He gave me one to try. That was it. I haven't installed a metal diffuser since. The MV air diffuser is virtually air tight. The one piece design eliminates the need for tedious mastic and external sealers, and cuts attic time, too. Diffuser installation is no longer a two man job. My labor estimates are more competitive and I pocket the profit."

3-way

2-way



diffuser install is the quickest in the trade.



Round

Strong, Versatile, Quiet. MV Classic is molded with professional grade polymers for long lasting durability. Choose from five grille styles to deliver the optimum air flow and movement pattern for any room.

Stepped collar tears off easily to enlarge duct size to maximize job site flexibility. Virtually air tight construction insures efficient and quiet air delivery.

4-way

Return
Exhaust
1-way

6"

7"

8"

4"

5"

6"

Tear away collar tabs

The anatomy of the **MV** air diffuser.

Stepped Collar easily fits multiple duct sizes



One piece. Virtually air tight. Quicker installation.



Zip off bands
tear away unneeded
sections



Damper Handle
allows smooth, easy
turning adjustment from
below for fully open to
tightly closed position.



Virtually airtight
butterfly damper
Rubber gasket delivers
superior seal when
closed.

Mounting Clips are
designed to accommodate
ceiling thickness to 1 1/4".
Screw heads are powder
coated.

High Grade Polymer Grille
resists breakage, scratching,
yellowing or fading.

Something unexpectedly

MV *Retro*

GRILLE • DAMPER • BOX



Retro style.

Same innovative design.

"When our builder offered us the MV Retro upgrade. We knew it would fit beautifully into our new home. There's an added sense of warmth missing with contemporary diffusers."



beautiful for your discriminating customer.

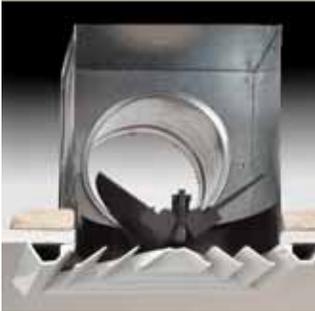


For Premium Installations. Distinguish yourself from your competition with MV Retro reproduction antique styled air diffusers. Your discerning customer can have the look and feel of a reproduction cast iron grille without the high cost and weight. Simulated cast iron texturing is scratch and rust resistant. Authentic handle turns easily for full range of air flow adjustment. MV Retro offers the same advanced technology and labor saving installation time as the standard Airtec diffuser line. Available in white and black. Stepped boot design, 2 sizes accommodate from 4" to 8" diameter ductwork.



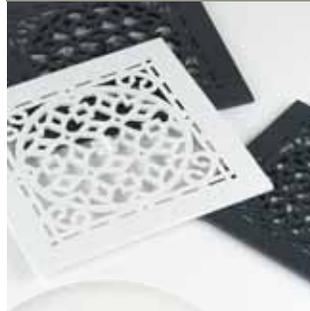
Limited clearance diffusers

GRILLE WITH DAMPER



Model GRD grille/damper combination for low clearance side or top entry applications. Same construction as MV diffusers but with no boot. Standard 8" size only. Available in all five grille styles.

GRILLE ONLY



Model GR grille only. All styles and sizes of both MV Classic and MV Retro grilles are available. Does not include boot or damper.



Ceiling support Flanges

ROUGH IN FLANGES



Model RCF Designed for new construction. Our RCF flashing can be fastened to rough framing. It has a 3/8" lip that drops below the ceiling, requiring dry wall installers to cut the hole for you. RCF flanges are available for both 16" and 24" on center framing.



DROP CEILING FLANGES



Model DCF The DCF will increase strength and performance for lay in type ceiling applications by transferring weight onto the T-bars. This prevents tiles from sagging over time.

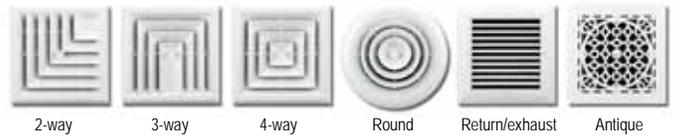


MODEL	DESCRIPTION	L	W	H	CTN QTY	CTN WT
RCF16	16"O/C - 9 1/4"hole	16"	12"	3/8"	50	37 lbs.
RCF24	24"O/C - 9 1/4"hole	23 5/8"	12"	3/8"	25	38 lbs.
RCF16S	16"O/C - 7"hole	16"	12"	3/8"	50	48 lbs.
RCF24S	24"O/C - 7"hole	23 5/8"	12"	3/8"	25	39 lbs.

MODEL	DESCRIPTION	L	W	H	CTN QTY	CTN WT
DCF	24"O/C - 9 1/4"hole	23 5/8"	12"	2"	25	45 lbs.
DCFS	24"O/C - 7"hole	23 5/8"	12"	2"	25	48 lbs.

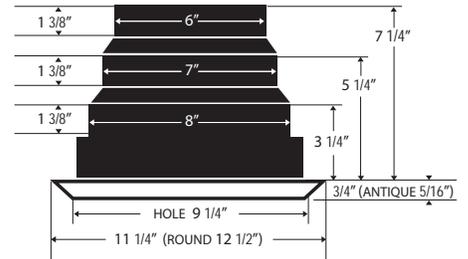
Diffuser ordering information

GRILLE PATTERNS



MV Classic standard 8x8" diffuser assembly

MODEL	DESCRIPTION	CTN QTY	CTN WT
MV2	2-way grille/damper/box	4	9 lbs
MV3	3-way grille/damper/box	4	9 lbs
MV4	4-way grille/damper/box	4	9 lbs
MV360	Round grille/damper/box	4	9 lbs
MVE	Return/exhaust grille/damper/box	4	9 lbs
MXE	Return/exhaust grille/box (no damper)	4	9 lbs

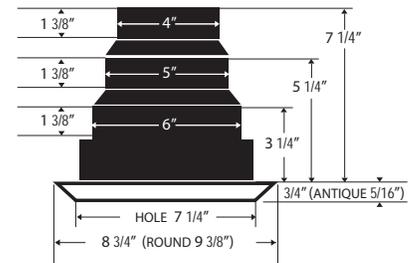


MV Retro standard 8x8" diffuser assembly

MODEL	DESCRIPTION	CTN QTY	CTN WT
MVAW	Retro White grille/damper/box	4	9 lbs
MVAB	Retro Black grille/damper/box	4	9 lbs

MV Classic small 6x6" diffuser assembly

MODEL	DESCRIPTION	CTN QTY	CTN WT
MV2S	2-way grille/damper/box	8	10.5 lbs
MV3S	3-way grille/damper/box	8	10.5 lbs
MV4S	4-way grille/damper/box	8	10.5 lbs
MV360S	Round grille/damper/box	6	7.5 lbs
MVES	Return/exhaust grille/damper/box	8	10.5 lbs
MXES	Return/exhaust grille/box (no damper)	8	10.5 lbs

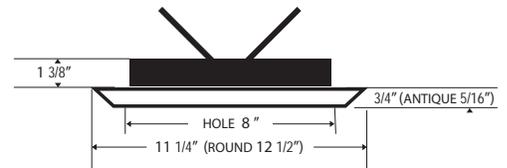


MV Retro small 6x6" diffuser assembly

MODEL	DESCRIPTION	CTN QTY	CTN WT
MVASW	Retro White grille/damper/box	8	10.5 lbs
MVASB	Retro Black grille/damper/box	8	10.5 lbs

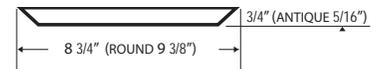
Limited clearance grille/damper

MODEL	DESCRIPTION	CTN QTY	CTN WT
GRD2	2-way grille/damper	12	15.8 lbs
GRD3	3-way grille/damper	12	15.8 lbs
GRD4	4-way grille/damper	12	15.8 lbs
GRD360	Round grille/damper	6	7.7 lbs
GRDE	Return/exhaust grille/damper	12	15.8 lbs
GRDAW	Retro grille/damper (white)	12	15.8 lbs
GRDAB	Retro grille/damper (black)	12	15.8 lbs



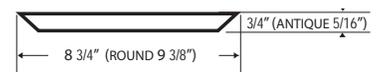
Standard Limited clearance grille only

MODEL	DESCRIPTION	CTN QTY	CTN WT
GR2	2-way grille	25	15.5 lbs
GR3	3-way grille	25	15.5 lbs
GR4	4-way grille	25	15.5 lbs
GR360	Round grille	15	9.0 lbs
GRE	Return/exhaust grille	25	15.5 lbs
GRAW	Retro grille (white)	25	11.5 lbs
GRAB	Retro grille (black)	25	11.5 lbs



Small limited clearance grille only

MODEL	DESCRIPTION	CTN QTY	CTN WT
GR2S	2-way grille small	25	10.5 lbs
GR3S	3-way grille small	25	10.5 lbs
GR4S	4-way grille small	25	10.5 lbs
GR360S	Round grille small	15	6.5 lbs
GRES	Return/exhaust grille small	25	9.0 lbs
GRASW	Retro grille small (white)	25	9.0 lbs
GRASB	Retro grille small (black)	25	9.0 lbs



Diffuser air flow specifications

MV2 (8x8") Ak=.33

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.006 WG	4.9 ft	164 ft/min
75	.009 WG	6.7 ft	229 ft/min
90	.014 WG	8.0 ft	264 ft/min
110	.021 WG	9.8 ft	330 ft/min
125	.027 WG	11.1 ft	375 ft/min
150	.039 WG	13.4 ft	451 ft/min
175	.053 WG.	15.6 ft	533 ft/min
200	.069 WG	17.8 ft	604 ft/min
250	.108 WG	22.3 ft	757 ft/min
300	.156 WG	26.7 ft	909 ft/min
350	.212 WG	31.2 ft	1060 ft/min

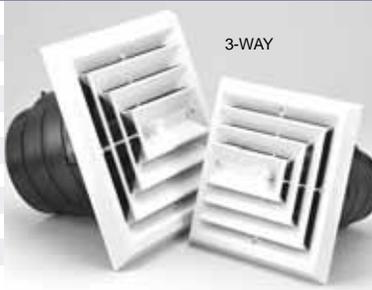


MV2S (6x6") Ak=.17

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.028 WG	4.5 ft	308 ft/min
75	.054 WG	6.0 ft	421 ft/min
90	.102 WG	7.1 ft	592 ft/min
110	.145 WG	8.9 ft	663 ft/min
125	.181 WG	10.3 ft	785 ft/min
150	.245 WG	11.5 ft	903 ft/min
175	.325 WG.	12.6 ft	1045 ft/min
200	.430 WG	14.0 ft	1155 ft/min

MV3 (8x8") Ak=.29

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.008 WG	5.0 ft	188 ft/min
75	.014 WG	6.8 ft	255 ft/min
90	.020 WG	8.1 ft	310 ft/min
110	.030 WG	9.9 ft	370 ft/min
125	.038 WG	11.3 ft	445 ft/min
150	.054 WG	13.5 ft	517 ft/min
175	.073 WG.	15.8 ft	602 ft/min
200	.095 WG	18.0 ft	689 ft/min
250	.148 WG	22.5 ft	862 ft/min
300	.213 WG	27.0 ft	1034 ft/min
350	.289 WG	31.5 ft	1206 ft/min



Throw measurements are equal in all three directions +/-5%

MV3S (6x6") Ak=.17

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.056 WG	5.3 ft	344 ft/min
75	.075 WG	7.2 ft	426 ft/min
90	.130 WG	8.8 ft	570 ft/min
110	.171 WG	10.2 ft	661 ft/min
125	.230 WG	11.1 ft	785 ft/min
150	.290 WG	11.5 ft	880 ft/min
175	.445 WG.	12.1 ft	994 ft/min
200	.545 WG	12.8 ft	1182 ft/min

MV4 (8x8") Ak=.30

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.007 WG	3.9 ft	183 ft/min
75	.011 WG	5.3 ft	247 ft/min
90	.017 WG	6.4 ft	293 ft/min
110	.024 WG	7.8 ft	359 ft/min
125	.030 WG	8.9 ft	410 ft/min
150	.043 WG	10.6 ft	505 ft/min
175	.057 WG.	12.4 ft	562 ft/min
200	.073 WG	14.2 ft	640 ft/min
250	.114 WG	17.7 ft	833 ft/min
300	.164 WG	21.3 ft	1000 ft/min
350	.223 WG	24.8 ft	1166 ft/min



MV4S (6x6") Ak=.20

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.050 WG	4.5 ft	330 ft/min
75	.085 WG	6.3 ft	361 ft/min
90	.117 WG	7.1 ft	440 ft/min
110	.160 WG	8.2 ft	527 ft/min
125	.200 WG	9.1 ft	605 ft/min
150	.290 WG	10.2 ft	750 ft/min
175	.395 WG.	10.9 ft	875 ft/min
200	.490 WG	11.5 ft	962 ft/min

MV360 (8x8") Ak=.33

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.002 WG	3.0 ft	161 ft/min
75	.003 WG	3.6 ft	223 ft/min
90	.004 WG	3.8 ft	269 ft/min
110	.005 WG	4.0 ft	328 ft/min
125	.006 WG	5.0 ft	381 ft/min
150	.010 WG	5.5 ft	449 ft/min
175	.015 WG.	6.5 ft	527 ft/min
200	.021 WG	7.0 ft	612 ft/min
250	.029 WG	8.0 ft	755 ft/min
300	.038 WG	9.0 ft	904 ft/min
350	.045 WG	10.0 ft	1055 ft/min



MV360S (6x6") Ak=.17

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.006 WG	0.8 ft	214 ft/min
75	.009 WG	1.5 ft	284 ft/min
90	.014 WG	2.2 ft	347 ft/min
110	.018 WG	2.3 ft	415 ft/min
125	.025 WG	3.2 ft	437 ft/min
150	.036 WG	4.4 ft	544 ft/min
175	.045 WG.	5.5 ft	614 ft/min
200	.060 WG	6.4 ft	699 ft/min

*All throw measurements are made from the center of the grille to a terminal velocity of 50 feet per minute. Direction determined by grille profile. .

**Noise level of any diffuser is directly related to face velocity. As a general rule face velocity should be under 800 FPM for residential applications. The MV diffuser with its one piece molded design, outperforms comparable diffusers causing less turbulence and noise.

MVE (8x8") Ak=.37

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.0005 WG	0.8 ft	92 ft/min
75	.0008 WG	2.1 ft	151 ft/min
90	.0014 WG	3.4 ft	207 ft/min
110	.0017 WG	5.6 ft	255 ft/min
125	.0020 WG	7.8 ft	350 ft/min
150	.0030 WG	9.7 ft	445 ft/min
175	.0050 WG.	11.4 ft	545 ft/min
200	.0080 WG	12.8 ft	700 ft/min
250	.0200 WG	14.1 ft	910 ft/min
300	.0250 WG	14.8 ft	1044 ft/min
350	.0300 WG	15.4 ft	1187 ft/min



MVES (6x6") Ak=.31

55	.0008 WG	1.2 ft	146 ft/min
75	.0018 WG	4.2 ft	230 ft/min
90	.0035 WG	6.2 ft	285 ft/min
110	.0043 WG	7.3 ft	338 ft/min
125	.0054 WG	8.7 ft	434 ft/min
150	.0085 WG	9.8 ft	545 ft/min
175	.0100 WG.	11.0 ft	645 ft/min
200	.0110 WG	12.4 ft	685 ft/min

MXE (8x8") Ak=.37

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.0005 WG	0.8 ft	92 ft/min
75	.0008 WG	2.1 ft	151 ft/min
90	.0014 WG	3.4 ft	207 ft/min
110	.0017 WG	5.6 ft	255 ft/min
125	.0020 WG	7.8 ft	350 ft/min
150	.0030 WG	9.7 ft	445 ft/min
175	.0050 WG.	11.4 ft	545 ft/min
200	.0080 WG	12.8 ft	700 ft/min
250	.0200 WG	14.1 ft	910 ft/min
300	.0250 WG	14.8 ft	1044 ft/min
350	.0300 WG	15.4 ft	1187 ft/min



MXES (6x6") Ak=.31

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.0008 WG	1.2 ft	146 ft/min
75	.0018 WG	4.2 ft	230 ft/min
90	.0035 WG	6.2 ft	285 ft/min
110	.0043 WG	7.3 ft	338 ft/min
125	.0054 WG	8.7 ft	434 ft/min
150	.0085 WG	9.8 ft	545 ft/min
175	.0100 WG.	11.0 ft	645 ft/min
200	.0110 WG	12.4 ft	685 ft/min

MVAW (8x8") Ak=.26

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.0007 WG	4.0 ft	175 ft/min
75	.0009 WG	6.8 ft	269 ft/min
90	.0021 WG	8.2 ft	383 ft/min
110	.0055 WG	9.9 ft	436 ft/min
125	.0064 WG	11.3 ft	472 ft/min
150	.0085 WG	12.9 ft	593 ft/min
175	.0105 WG.	14.3 ft	693 ft/min
200	.0160 WG	15.3 ft	841 ft/min
250	.0230 WG	16.0 ft	1031 ft/min
300	.0391 WG	17.2 ft	1201 ft/min
350	.0552 WG	17.9 ft	1315 ft/min

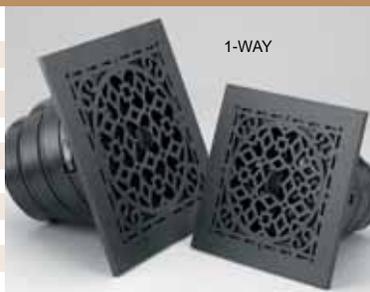


MVASW (6x6") Ak=.20

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.0085 WG	2.1 ft	277 ft/min
75	.0185 WG	5.0 ft	373 ft/min
90	.0240 WG	7.9 ft	445 ft/min
110	.0375 WG	10.9 ft	550 ft/min
125	.0520 WG	13.3 ft	650 ft/min
150	.0730 WG	14.9 ft	771 ft/min
175	.1010 WG.	16.3 ft	899 ft/min
200	.1200 WG	17.5 ft	988 ft/min

MVAB (8x8") Ak=.26

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.0007 WG	4.0 ft	175 ft/min
75	.0009 WG	6.8 ft	269 ft/min
90	.0021 WG	8.2 ft	383 ft/min
110	.0055 WG	9.9 ft	436 ft/min
125	.0064 WG	11.3 ft	472 ft/min
150	.0085 WG	12.9 ft	593 ft/min
175	.0105 WG.	14.3 ft	693 ft/min
200	.0160 WG	15.3 ft	841 ft/min
250	.0230 WG	16.0 ft	1031 ft/min
300	.0391 WG	17.2 ft	1201 ft/min
350	.0552 WG	17.9 ft	1315 ft/min



MVASB (6x6") Ak=.20

CFM	PRESSURE LOSS	THROW*	FACE VELOCITY**
55	.0085 WG	2.1 ft	277 ft/min
75	.0185 WG	5.0 ft	373 ft/min
90	.0240 WG	7.9 ft	445 ft/min
110	.0375 WG	10.9 ft	550 ft/min
125	.0520 WG	13.3 ft	650 ft/min
150	.0730 WG	14.9 ft	771 ft/min
175	.1010 WG.	16.3 ft	899 ft/min
200	.1200 WG	17.5 ft	988 ft/min

Note: Supply diameter has no appreciable effect on characteristics or airflow specifications, but should be consistent with the desired airflow of the particular outlet and application. Instruments used in testing: • Shortridge Instruments Flowhood Series 8400 • Shortridge Instruments Air data Multimeter • Davis LCA-6000 Rotating Vane Anemometer

Quick rough-in poly

MH TuffBox REGISTER BOX

Insert screwdriver

Strong and Silent.
Our TuffBox is a heavy,
one piece durable
polymer shell. Molded
design is virtually air
tight to deliver 100%
of the air flow passing
through it.

MHL

8"

9"

10"

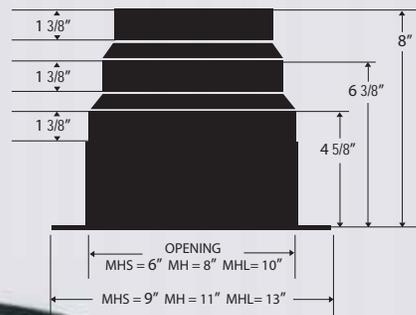
No measuring.
No guesswork.
5/8" standoffs provide correct depth to
accommodate strapping or furring used
with drywall. Secure using screw holes
provided or simply screw anywhere
through the inside into framing.
The TuffBox tough polymer
construction can take it!

mer register box for HVAC systems.



ORDERING INFORMATION

MODEL	DESCRIPTION	CTN QTY	CTN WT
MHS	6x6" Register Box 4,5,6" collars	16	15 lbs.
MH	8x8" Register Box 6,7,8" collars	10	12.2 lbs.
MHL	10x10" Register Box 8,9,10" collars	8	12 lbs.



Adaptable. Each TuffBox utilizes innovative stepped design to accommodate three duct sizes.

Quick breakaway collars allow on-site adjustment, and labor savings. Each collar is 1 3/8" and beaded to hold flexible duct in place while strap is secured.



Air tight construction. Flange is flexible to conform to drywall backing virtually eliminating leakage between grille and box.



Air Diffusion Catalog #BRAIR

- MV CLASSIC | POLYMER AIR DIFFUSERS
- MV RETRO | POLYMER AIR DIFFUSERS
- MH TUFFBOX | REGISTER BOXES



Lineset Protection Catalog #BRLPF

- FORTRESS | LINESET DUCTING SYSTEM
- NOVENT | LOCKING REFRIGERANT CAPS



Condensate Management Catalog #BRCON

- ASPEN | CONDENSATE PUMPS
- EZ TRAP | TRAPS & OVERFLOW SWITCHES
- AIRTEC | DRAIN HOSES & FITTINGS



Equipment Mounting Catalog #BREQM

- AIRTEC | CONDENSER BRACKETS & RISERS
- BIG FOOT | FLAT ROOF SYSTEMS



Minisplit Accessories Catalog #BRMSC

- FORTRESS | LINESET DUCTING SYSTEM
- NOVENT | LOCKING REFRIGERANT CAPS
- ASPEN | CONDENSATE PUMPS
- AIRTEC | DRAIN HOSES & FITTINGS
- AIRTEC | CONDENSER BRACKETS & RISERS
- BIG FOOT | FLAT ROOF SYSTEMS