MRV3015, MRV3615, MRV36-ER, MRV48, MRV48-ER, MRV3015-ERS, HRV46S

dacor LET THE SHOW BEGIN

Modernist® Slim Chassis Downdraft Vents

PLANNING GUIDE

DIMENSIONS - MODELS MRV3015, MRV3615

WARNING

- Observe all governing codes and ordinances during planning and installation. Contact your local building department for further information.
- This appliance must be installed in accordance with the accompanying installation instructions.

Model no.	A	B	Circuit requirement**
MRV3015	30" (76.2 cm)	27 3/8" (69.5 cm)	Three prong electrical outlet connected to 120 Vac, 60 Hz., 15 Amp. grounded, dedicated, circuit
MRV3615	36" (91.4 cm)	33 3/8" 84.8 cm)	

NOTES:

1. **Maximum installed height must not exceed the maximum specified countertop height of cooking appliance.**
2. **Install these downdraft vents only with approved Dacor appliances. See the planning guide for the particular appliance for proper applications and cutout information.**
3. **This appliance must be install in conjunction with a single, Dacor approved blower. See page 4/7 for approved blowers.**
4. **Local building codes may require the use of makeup air systems. Consult a qualified HVAC specialist when designing the system for the requirements in your area and to assure optimal performance.**

DIMENSIONS - MODELS MRV48, HRV46S

WARNING

- Observe all governing codes and ordinances during planning and installation. Contact your local building department for further information.
- This appliance must be installed in accordance with the accompanying installation instructions.

All tolerances: ±1/16" (±1.6 mm) unless otherwise stated

SIDE VIEW **FRONT VIEW**

Model no.	A	B	Circuit requirement**
MRV48	48" (121.9 cm)	43 3/8" (110.2 cm)	Three prong electrical outlet connected to 120 Vac, 60 Hz, 15 Amp. grounded, dedicated, circuit
HRV46S	46" (116.8 cm)	43 3/8" (110.2 cm)	

** Includes power supply requirements for external blower

NOTES:

1. **Maximum installed height must not exceed the maximum specified countertop height of cooking appliance.**
2. **Install these downdraft vents only with approved Dacor appliances. See the planning guide for the particular appliance for proper applications and cutout information.**
3. **This appliance must be installed in conjunction with a single Dacor approved blower. See page 4/7 for approved blowers.**
4. **Local building codes may require the use of makeup air systems. Consult a qualified HVAC specialist when designing the system for the requirements in your area and to assure optimal performance.**

MRV3015, MRV3615, MRV36-ER, MRV48, MRV48-ER, MRV3015-ERS, HRV46S

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Modernist Slim Chassis Downdraft Vents

PLANNING GUIDE

DIMENSIONS - MODELS MRV36-ER, MRV48-ER, MRV-3015-ERS

WARNING

- Observe all governing codes and ordinances during planning and installation. Contact your local building department for further information.
- This appliance must be installed in accordance with the accompanying installation instructions.

All tolerances: +/- 1/16" (+/- 1.6 mm) unless otherwise stated

Model number	A	B	C
MRV36-ER	36" (91.4 cm)	33 3/8" (84.8 cm)	10" (25.4 cm)
MRV48-ER	48" (121.9 cm)	43 3/8" (110.2 cm)	10" (25.4 cm)
MRV3015-ERS	48" (121.9 cm)	43 3/8" (110.2 cm)	15" (38.1 cm)

NOTE: See the appliance planning guide page for cutout dimensions

NOTES:

1. **Maximum installed height must not exceed the maximum specified countertop height of cooking appliance.**
2. **Install these downdraft vents only with approved Dacor appliances. See the planning guide for the particular appliance for proper applications and cutout information.**
3. **This appliance must be install in conjunction with a single Dacor approved blower. See page 4/7 for approved blowers.**
4. **Local building codes may require the use of makeup air systems. Consult a qualified HVAC specialist when designing the system for the requirements in your area and to assure optimal performance.**

Circuit requirement (all models)*
Three prong electrical outlet connected to 120 Vac, 60 Hz, 15 Amp. grounded, dedicated, circuit

* Includes power supply requirements for external blower.

Duct System Layouts and Approved Blowers

IMPORTANT: Do not install more than one blower with this appliance.

APPROVED DACOR BLOWERS		
Blower Model	**Blower rating**	**Compatible with**
CABP3[1]	600 CFM[2]	MRV3015[3], MRV3615[3]
ILHSF8	600 CFM[2]	All Dacor MRV Series Models
ILHSF10	1100 CFM[2]	All Dacor MRV Series Models
REMP3	600 CFM[2]	All Dacor MRV Series Models
REMP16	1000 CFM[2]	All Dacor MRV Series Models

[1] **IMPORTANT:** Due to a lack of clearance, do not use a CABP3 blower if a range or wall oven is to be installed in front of the downdraft vent.
[2] Nominal rating at zero inches static pressure, see the blower panning guide page for actual blower ratings.
[3] Revision B and later units only. Installation of blower model CABP3 requires Dacor adapter kit # AERVCAB.

- The CABP3 blower assembly is mounted to the front of the downdraft vent with the exhaust pointing in the desired direction.
- With ILHSF and REMP blowers, the downdraft vent can be configured to exhaust through the back, the bottom or either side by removing the appropriate exhaust knock-out.
- See the following pages for duct layout requirements and maximum duct length.

EXAMPLE OF LAYOUT WITH CABINET BLOWER CONFIGURATION, EXHAUST THROUGH WALL

EXAMPLE OF LAYOUT WITH COOKTOP AND REAR EXHAUST

EXAMPLE OF LAYOUT WITH RANGE AND BOTTOM EXHAUST

ELECTRICAL LAYOUT

- There are 7/8" access holes in the bottom and side of the downdraft vent for connecting the blower wiring and strain relief. The blower must be wired to turn on when the downdraft vent is turned on. When installing a remote or in-line blower, run the blower wiring/conduit parallel to the duct work, connecting it to the downdraft vent on one end and the blower on the other.
- Access from the front of the cabinet to the chassis and the electrical/ gas supplies of both appliances must be provided for inspection and service. Any drawers or shelves must be easy to remove for access to the cooktop, downdraft vent and utilities.

All tolerances: ±1/16" (±1.6 mm) unless otherwise stated

EXHAUST OUTLET LOCATION OPTIONS

SIDE VIEW **FRONT VIEW**

① Rear Exhaust Knock Out (3 ¼" X 10")

② Vertical center line of rear exhaust knock out lines up with vertical center line of chassis

③ Bottom Exhaust Knock Out (1 ⅝" X 16")

④ The vertical center line of bottom knock out is offset 3"

⑤ Side Exhaust Knock Outs (1 ⅝" X 16")

2" x 16" to 3 1/4" x 10" TRANSITION (INCLUDED)

CABP3 Blower Layout (option MRV3015 and MRV3615 only)

EXHAUST LOCATIONS AND SIDE DIMENSIONS FOR CABP3 CABINET BLOWER

Model	A	B	C
MRV3015	12 1/8" (30.7 cm)	5 5/8" (14.4 cm)	1 3/4" (4.4 cm)
MRV3615	9 3/4" (24.8 cm)	8" (20.3 cm)	4 1/4" (10.8 cm)

FRONT EXHAUST DIMENSIONS CABP3 BLOWER - LEFT EXHAUST

FRONT EXHAUST DIMENSIONS CABP3 BLOWER - RIGHT EXHAUST

FRONT EXHAUST DIMENSIONS CABP3 BLOWER - BOTTOM EXHAUST

Duct work Design Considerations

- For optimal performance, consult a qualified HVAC specialist when designing the duct system.
- All duct work materials (including screws and duct tape) must be purchased separately by the customer.
- Cross-drafts or air currents from adjacent open windows or doors, heating/air conditioning outlets, ceiling fans and recessed ceiling lights reduce vent efficiency.
- When planning the cabinet layout, allow room for the exhaust duct coming out of the unit. Always look for the shortest, most direct route to the outside.
- Do not use flexible metal duct.
- Wherever possible, reduce the number of transitions and turns to as few sharp angles as possible. Two staggered 45° angles are better than one 90°. Keep turns as far away from the hood exhaust as possible, with as much space between each bend as possible.
- For best performance, use round duct instead of rectangular when possible, especially when elbows are required.
- If multiple elbows are used, try to keep a minimum of 24" of straight duct between them. Avoid "S" or "back to back" configurations of adjacent elbows.
- You can increase the duct size over the duct run if desired. To prevent a back draft, never decrease the duct size over the run.
- To prevent back-drafts, a damper at the duct outlet may also be required.
- Make sure duct work does not interfere with floor joists or wall studs.
- System exhaust location must take into account accumulated snowfall, where applicable.

Calculating the Maximum Duct run Length

- Do not use duct work that is smaller in cross-sectional area than the required duct sizes in the ***Blower Maximum Duct Straight Length*** table below. For best performance, keep the duct run as short as possible and never exceed the maximums stated.
- The maximum straight duct length for the downdraft vent system depends on the model of remote or in-line blower used with the vent system and the number of elbows and transitions used. The ***Equivalent Number of Feet*** for each elbow and transition must be subtracted from the maximum straight length to compensate for wind resistance. To determine the maximum allowable length of the duct work, subtract all of the equivalent lengths of the elbows and transitions from the ***Blower Maximum Duct Straight Length***.

For example, for a downdraft vent system using 3 ¼" X 10" rectangular duct, two (2) 3 ¼" X 10" 90° elbows, a 3 ¼" X 10" rectangular to 10" round transition, and a rEMP16 remote blower:

- From the ***Blower Maximum Duct Straight Length*** table, the maximum length without transitions and elbows is 60 feet.
- The equivalent length of each 90° elbow is 15 feet.
- The equivalent length of 45° elbow is 2 feet.
- The equivalent length of the transition is 4 feet.
- The total equivalent length of the above components is: 15 feet + 15 feet + 4 feet + 2 feet = 36 feet.
- The maximum amount of straight duct that can be used with a REMP16 and the above components is: 60 feet - 34 feet = 24 feet.

Equivalent number of Feet - Duct Elbows and Transitions			
45° elbow, 8 inch	3 feet	3 ¼" X 10", 45° elbow	7 feet
45° elbow, 10 inch	2 feet	3 ¼" X 10", 90° elbow	15 feet
90° elbow, 8 inch	7 feet	3 ¼" X 10", 90° flat elbow	20 feet
90° elbow, 10 inch	5 feet	3 ¼" X 10" to 8" round transition	4 feet
90° 3 ¼" X 10" to 8" round transition	25 feet	3 ¼" X 10" to 10" round transition	4 feet
Roof cap	*	Wall cap**	*

* The equivalent lengths of roof and wall caps vary with model and configuration. For equivalent length, contact the manufacturer or a qualified HVAC specialist.

** Not applicable for REMP series blowers.

Duct Size Used	Blower Maximum Duct Straight Length				
	rEMP3 remote Blower	rEMP16 remote Blower	iLHSF8 in-line Blower	iLHSF10 in-line Blower	CaBP3 Cabinet Blower
8 Inch	50 feet (15.2 meters)	60 feet (18.3 meters)	50 feet (15.2 meters)	60 feet (18.3 meters)	40 feet (12.2 meters)
10 Inch	40 feet (12.2 meters)	70 feet (21.3 meters)	40 feet (12.2 meters)	70 feet (21.3 meters)	30 feet (9.2 meters)
3 ¼" X 10"	40 feet (12.2 meters)	60 feet (18.3 meters)	40 feet (12.2 meters)	60 feet (18.3 meters)	30 feet (9.2 meters)