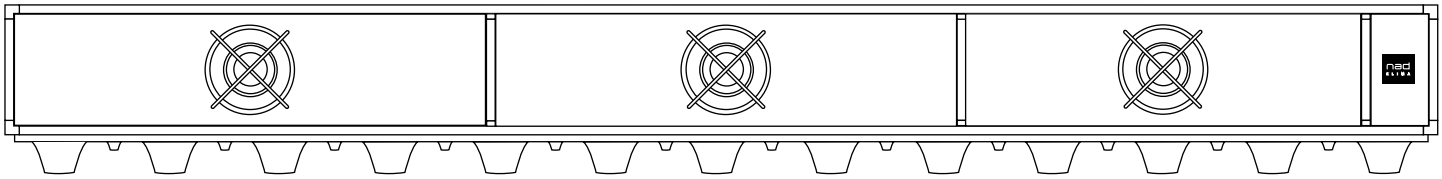
NAD KLIMA
144, rue Léger, Sherbrooke QC J1L 1L9
819 780-0111 • 1 866 531-1739
info@nadklima.com

DATE	
PROJECT	
ENGINEER	
CONTRACTOR	

Shop drawing



NAC H
NAC V



NAC S

Air curtain features

- Made of satin-finished steel and aluminum
- Nozzles angled toward the door and adapted to door dimensions
- **NAC H and V** – Fans available in 115 or 230 volts single-phase and 230 or 575 volts three-phase
- **NAC S** – 3 fans of 115 volts single-phase
- Polyester-based TGIC-free powder-coated finish
- Color chosen by the client according to the RAL chart only
- Vertical or horizontal installation
- Protective grille for fans
- Easy maintenance
- Fans easily accessible for servicing
- Fans equipped with thermal protection
- Overload protection
- Automatic trigger system
- Operated by a control panel
- Selector switch: OFF, MANUAL, or AUTOMATIC
- Approved according to CSA C22.2 No113 Fans and Ventilators or ANSI/UL UL 507 Standard for Safety Electric Fans
- Certification: ANSI/UL Std. 507 CAN/CSA Std. C22.2 No. 113

Certification
ANSI/UL Std. 507
CAN/CSA Std. C22.2 No. 113

Operation

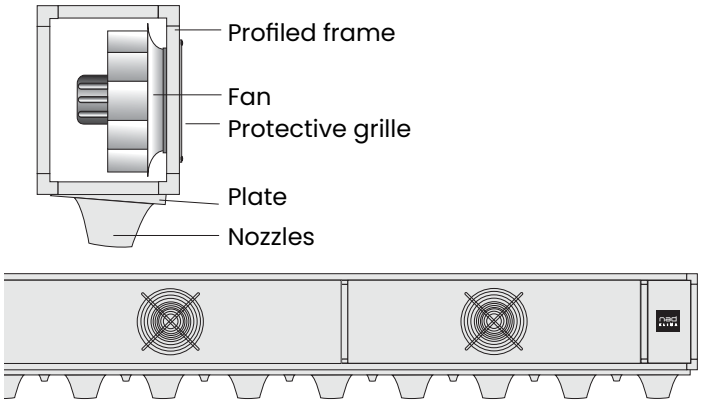
NAC H / V

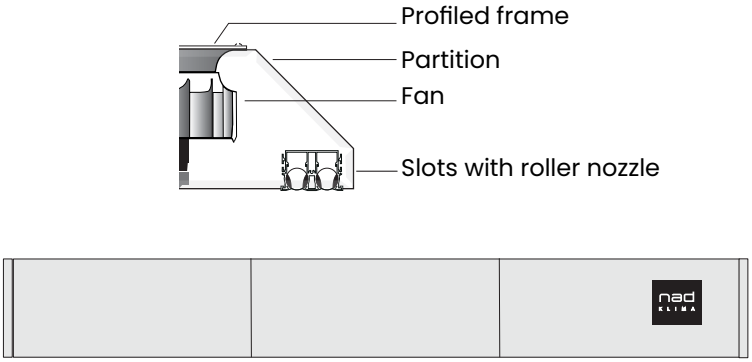
Locally, NAC-H and NAC-V air curtains are available for doors ranging from 2.5 m to 7.3 m (8 ft to 24 ft) in width and from 2.5 m to 9.1 m (8 ft to 30 ft) in height.

NAC S

Specifically designed for loading dock doors, the NAC-S air curtain is built for doors 2.5 m (8 ft) wide and 2.5 to 2.75 m (8 ft to 9 ft) high.

The NAC-S air curtain is manufactured in three sections. Each section, equipped with a fan, that can be removed The NAC-S air curtain is factory-assembled.

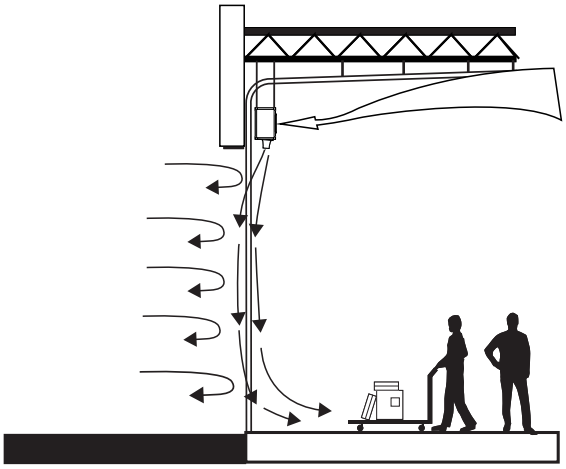




OPERATION

Powerful fans allow the recirculation of ambient air and propel it through large and small nozzles. The air jets form a thermal barrier covering the entire door surface.

Low-noise fans are integrated into steel panels. They allow the recirculation of ambient air and propel it through nozzle rollers. The air jets form a thermal barrier covering the entire door surface.



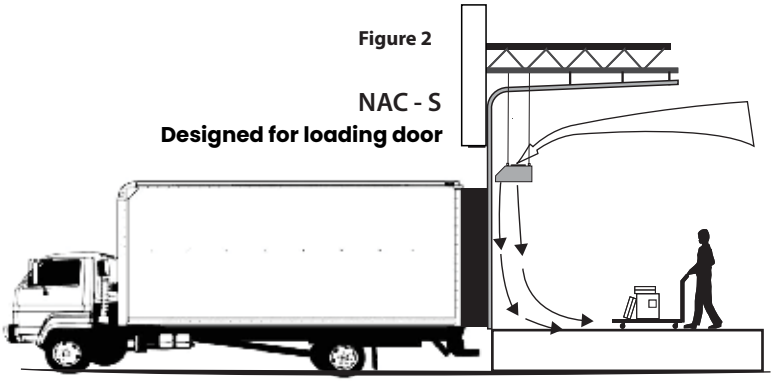


Figure 2

NAC - S

Designed for loading door

Selection Table nac H

NAC H – Horizontal Air Curtain with Vertical Jet

Door Width – ft (m)		10 (3.05)			12 (3.66)			Height ft (m)
Airflow	(cfm)	3600			5200			**8' to 10' (2.4 - 3.0)**
Speeds: nozzle / floor outlets	(ppm)	6500 / 610			7700 / 770			
Number of fans	(-)		3			4		
Motor voltage	(V)	115	230	575	115	230	575	
Number of phases	(~)	1	1	3	1	1	3	
Power per motor	(kW)	1.1	1.1	1.1	1.1	1.1	1.1	
Current per motor	(A)	9.4	4.7	1.28	9.4	4.7	1.28	
Total current	(A)	28.2	14.1	3.84	37.6	18.8	5.12	
Weight	(kg/lb)	130 / 290			140 / 310			

Door Width – ft (m)		12 (3.66)		14 (4.3)		16 (4.9)		18 (5.5)		20 (6.1)*		22 (6.7)*		24 (7.3)*		Height ft (m)
Airflow	(cfm)	5200		6300		6700		7000		7400		7900		8900		**12 (3.7)**
Speeds: nozzle / floor outlets	(ppm)	7700 / 680		8200 / 750		8800 / 790		8600 / 760		8600 / 760		8500 / 750		9300 / 750		
Number of fans	(-)	4		5		6		6		7		8		10		
Motor voltage	(V)	230	575	230	575	230	575	230	575	230	575	230	575	230	575	
Number of phases	(~)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
Power per motor	(kW)	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	
Current per motor	(A)	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	
Total current	(A)	11.2	5.12	14	6.4	16.8	7.68	16.8	7.68	19.6	8.96	22.4	10.24	28	12.8	
Weight	(kg/lb)	140 / 310		165 / 370		190 / 430		240 / 535		270 / 600		300 / 670		400 / 800		

Door Width – ft (m)		12 (3.66)		14 (4.3)		16 (4.9)		18 (5.5)		20 (6.1)*		22 (6.7)*		24 (7.3)*		Height ft (m)
Airflow	(cfm)	5200		6300		6700		7000		7400		7900		8900		**14 (4.3)**
Speeds: nozzle / floor outlets	(ppm)	7700 / 590		8200 / 630		8800 / 630		8600 / 630		8600 / 630		8500 / 650		9300 / 650		
Number of fans	(-)	4		5		6		6		7		8		10		
Motor voltage	(V)	230	575	230	575	230	575	230	575	230	575	230	575	230	575	
Number of phases	(~)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
Power per motor	(kW)	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	
Current per motor	(A)	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	
Total current	(A)	11.2	5.1	14	6.4	16.8	7.7	16.8	7.68	19.6	8.96	22.4	10.24	28	12.8	
Weight	(kg/lb)	140 / 310		165 / 370		190 / 430		240 / 535		270 / 600		300 / 670		400 / 890		

Door Width – ft (m)		12 (3.66)		14 (4.3)		16 (4.9)		18 (5.5)		20 (6.1)		22 (6.7)		24 (7.3)		Height ft (m)
Airflow	(cfm)	5800		6300		6700		7900		8200		8500		8900		**16 (4.9)**
Speeds: nozzle / floor outlets	(ppm)	8200 / 650		8200 / 530		8800 / 530		9000 / 660		9100 / 670		9300 / 580		9300 / 530		
Number of fans	(-)	5		5		6		8		8		9		10		
Motor voltage	(V)	230	575	230	575	230	575	230	575	230	575	230	575	230	575	
Number of phases	(~)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
Power per motor	(kW)	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	
Current per motor	(A)	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	
Total current	(A)	14	6.4	14	6.4	16.8	7.68	22.4	10.24	22.4	10.2	25.2	11.52	28	12.8	
Weight	(kg/lb)	155 / 345		165 / 370		190 / 430		270 / 600		285 / 635		330 / 735		360 / 800		

Door Width – ft (m)		12 (3.66)		14 (4.3)		16 (4.9)		18 (5.5)		20 (6.1)*		22 (6.7)*		24 (7.3)		Height ft (m)
Airflow	(cfm)	6200		6800		7500		7900		8200		9000		10500		**18 (5.5)**
Speeds: nozzle / floor outlets	(ppm)	9300 / 630		9000 / 620		9200 / 600		9000 / 530		9100 / 550		9600 / 600		11000 / 670		
Number of fans	(-)	6		6		8		8		8		10		12		
Motor voltage	(V)	230	575	230	575	230	575	230	575	230	575	230	575	230	575	
Number of phases	(~)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
Power per motor	(kW)	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	
Current per motor	(A)	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	
Total current	(A)	16.8	7.68	16.8	7.68	22.4	10.24	22.4	10.24	22.4	10.24	28	12.8	33.6	15.36	
Weight	(kg/lb)	170 / 380		185 / 410		250 / 555		270 / 600		285 / 635		350 / 780		400 / 900		

Door Width – ft (m)		12 (3.66)		14 (4.3)		16 (4.9)		18 (5.5)		20 (6.1)*		22 (6.7)*		24 (7.3)		Height ft (m)
Airflow	(cfm)	6200		7300		7500		8300		9200		9700		10500		**20 (6.1)**
Speeds: nozzle / floor outlets	(ppm)	9300 / 510		9400 / 500		9200 / 500		9400 / 500		11000 / 520		10800 / 500		11000 / 510		
Number of fans	(-)	6		7		8		9		10		11		12		
Motor voltage	(V)	230	575	230	575	230	575	230	575	230	575	230	575	230	575	
Number of phases	(~)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
Power per motor	(kW)	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	
Current per motor	(A)	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	2.8	1.28	
Total current	(A)	16.8	7.68	19.6	8.96	22.4	10.24	25.2	11.52	28	12.8	30.8	14.08	33.6	15.36	
Weight	(kg/lb)	170 / 380		200 / 450		250 / 555		300 / 670		330 / 735		370 / 825		400 / 900		

Results obtained in the laboratory and through CFD simulations under normal operating conditions.

For door widths greater than 7.3 m (24 ft), the air curtain is supplied in two NAC-H modules and requires assembly by the installer. Please refer to the installation guide.

NAC V : Installation of the Vertical Air Curtain with Horizontal Jet

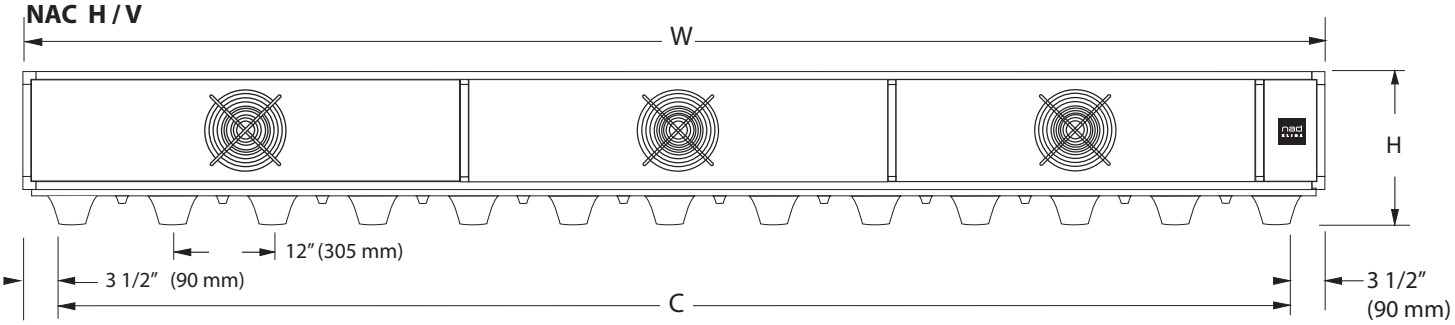
For a vertical air curtain with a horizontal jet, data will be provided upon request only.

nac S Selection Table

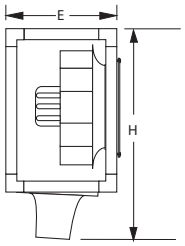
Door Width – ft (m)	8 (2.4)		Height ft (m)
Airflow	2700	2700	**8 to 9 (2.4 to 2.8)**
Speeds: nozzle / floor outlets	5400	450	
Number of fans	3	3	
Motor voltage	115	230	
Number of phases	1	1	
Power per motor	0.51	0.43	
Current per motor	4.3	1.88	
Total current	12.9	5.64	
Weight	63 / 140	63 / 140	

Dimension

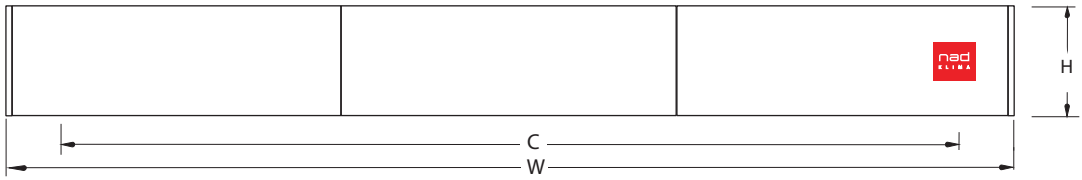
NAC H / V

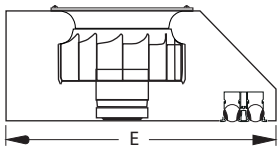


Door Width (C) – ft (m)	10 (3)	12 (3.7)	14 (4.3)	16 (5)	18 (5.5)	20 (6.1)	22 (6.7)	24 (7.3)	H	21 3/4" (553 mm)
Curtain Width (W) – ft (m)	10'-7" (3.23)	12'-7" (3.84)	14'-7" (4.45)	16'-7" (5.05)	18'-7" (5.66)	20'-9.7" (6.35)	22'-8.3" (6.92)	24'-6.9" (7.49)	E	11 7/8" (301 mm)



NAC - S

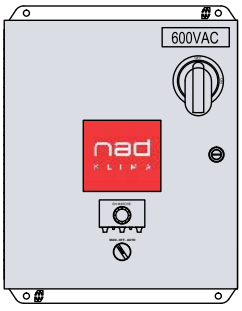


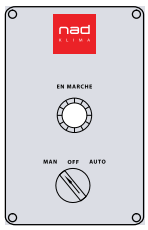


Door Width (C) – ft (m)	8 (2.4)	H	8" 7/32 po (208 mm)
Curtain Width (W) – ft (m)	8.6 (2.62)	E	20" 7/16po (5/8mm)

Control System

NAC H / V **NAC S**





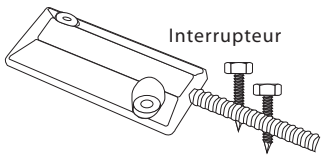
Control System

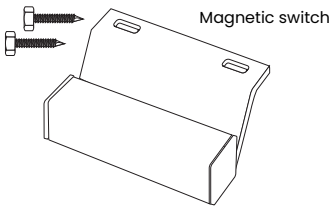
The NAC air curtain is operated by a control panel provided by NAD Klima:

Selector switch: MAN - OFF - AUTO
Manual mode: Curtain runs until switched OFF
Auto mode: Curtain activates via a magnetic switch when the door opens and stops when the door closes

Automatic Control System:
Composed of two parts: the switch and the magnetic trigger
Designed for near-universal installation on most door types

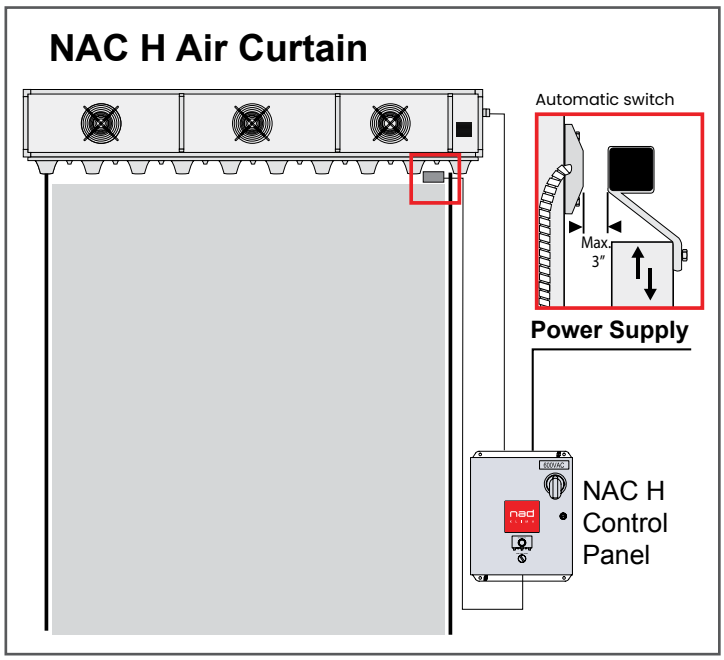
Electrical Notes:
Control panel and magnetic switch supplied by manufacturer
Power wiring between control panel, air curtain, and magnetic switch supplied by electrician

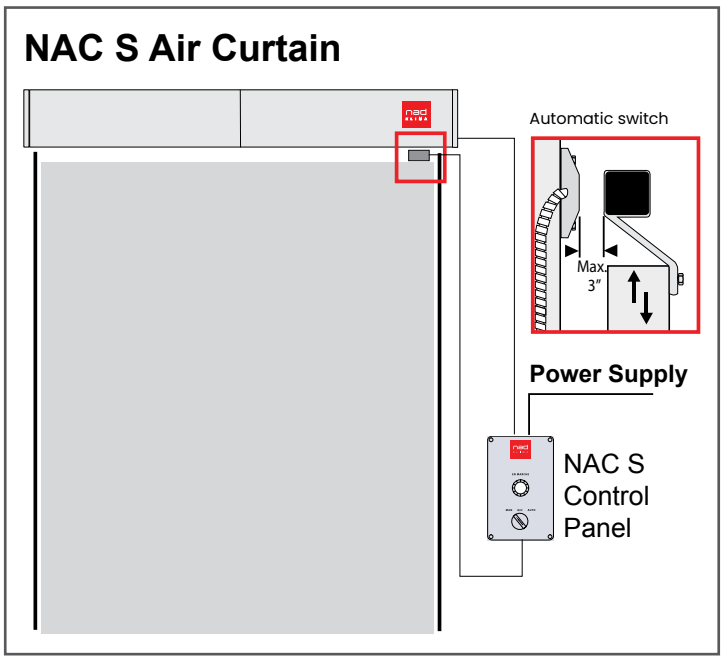


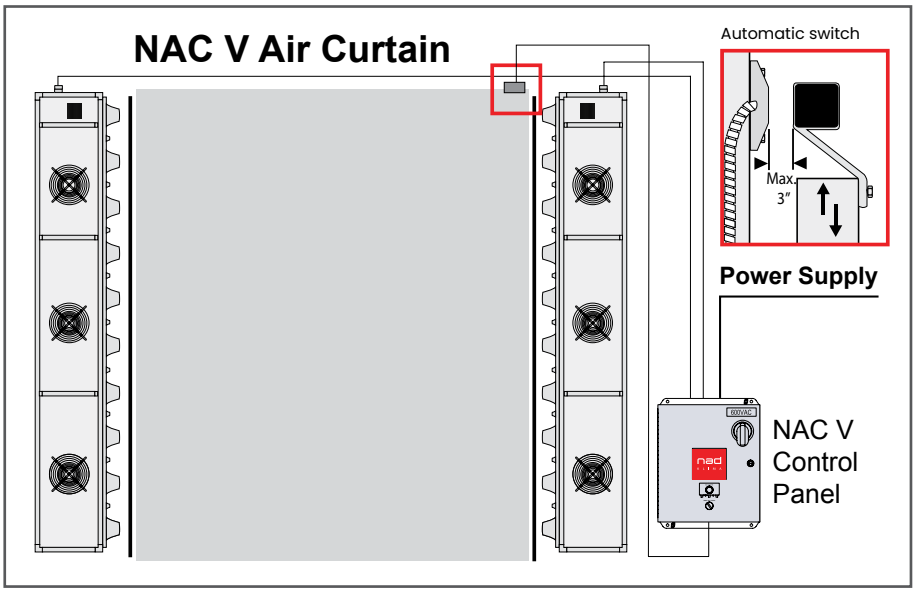


Electrical connections must comply with current standards and be performed by a qualified professional

Wiring diagram from control panels to nac units







****- Unless otherwise specified, the control panel is installed to the right of the door.**

For NAC-H units, the length of the supplied electrical wire is equivalent to the door height (e.g., door height 12 ft, wire length 12 ft).**

Note : Electrical connections between the electrical panel and the control panel, as well as between the control panel and the NAC unit, must be carried out in accordance with current standards by a qualified professional.

DATE	
PROJECT	
ENGINEER	
CONTRACTOR	

Codification nac ^{H} / nac ^{V} / nac ^{S}

*Complete the next two pages of this document for each air curtain

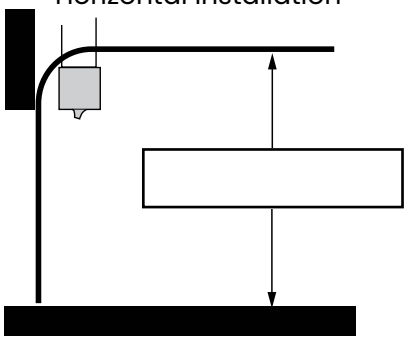
	Produit		Installation		Installation Width		Door Height		Motor Voltage		Airflow Control		Color		Vertical Installation
MODEL NUMBER : (SEE CODIFICATION BELOW)	NAC	-		-		-		-		-		-		-	

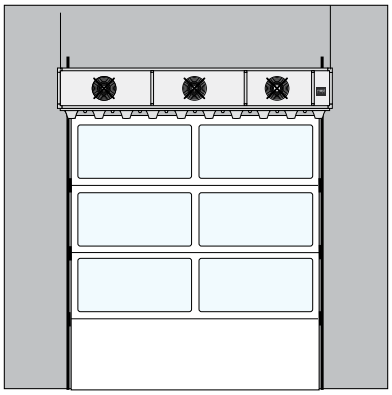
NAC	**Product**
H = Horizontal air curtain with vertical air jet for doors 10 ft (3 m) and high V = Vertical air curtain with horizontal air jet for doors 10 ft (3 m) and higher S = Horizontal air curtain for 8 ft wide doors (loading doors)	**Installation**
08 (2.4), 09 (2.75), 10 (3), 12 (3.66), 14 (4.3), 16 (5), 18 (5.5), 20 (6), 22(6.7), 24 (7.3)	**Installation Width, ft (m)**
08 (2.4), 09 (2.75), 10 (3), 12 (3.66), 14 (4.3), 16 (5), 18 (5.5), 20 (6), 22 (6.7), 24 (7.3), 26* (7.9), 28* (8.5), 30* (9.1) ***two or more modules required in vertical installation**	**Door Height, ft (m)**
1151 = 115/120 1~ 2301 = 208/230 1~ (special order for 8 ft wide doors) 2303 = 208/230 3~ (not available for 8 ft wide doors) 6003 = 575/600 3~ (not available for 8 ft wide doors)	**Motor Voltage**
X = Without variable speed control D = With variable speed control and rheostat	**Airflow Control**
9003 = White ____ = RAL color (specify RAL number)	**Color**
X = Without support S = With support (for vertical air curtain installation)	**Vertical Installation**
NAC - S - 08 - 08 - 1151 - X - 9003 - X	**Example**

DATE	
PROJECT	
ENGINEER	
CONTRACTOR	

☐ **NAC-H**

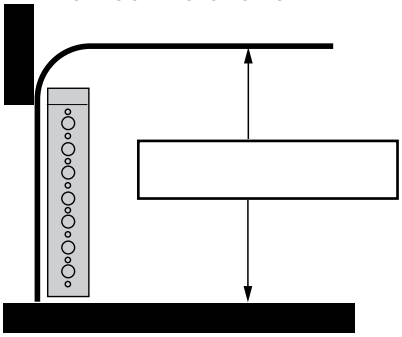
Horizontal installation

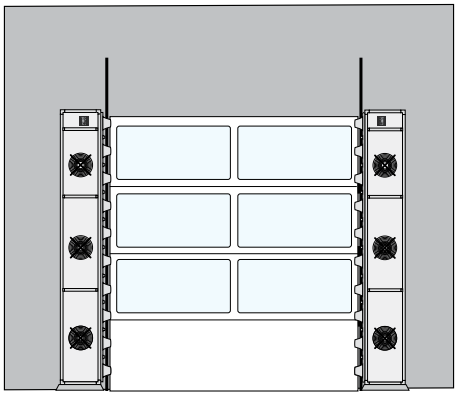




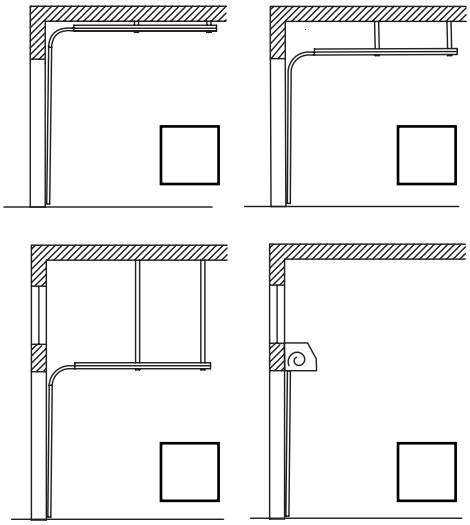
☐ **NAC-V**

Vertical installation





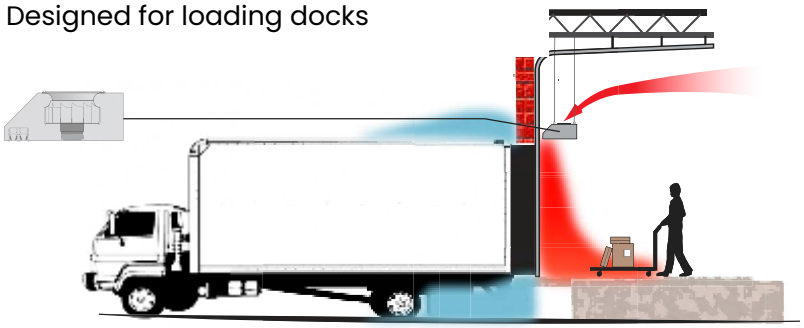
Rail Type

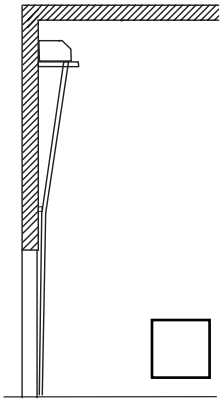


☐ **NAC-S**

Horizontal installation

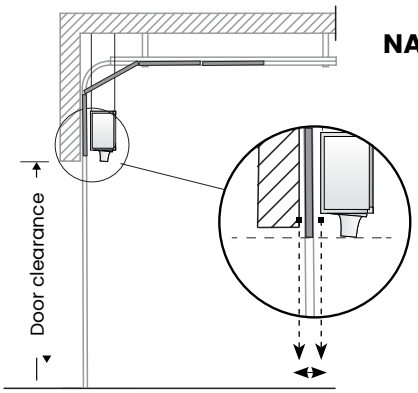
Designed for loading docks





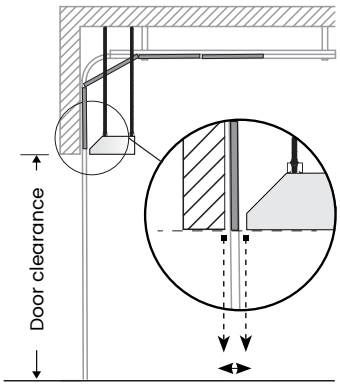
Control panel location (installation): ☐ **Left of the door** ☐ **Right of the door**

NAC-H



The default distance from the wall is 12 inches

NAC-S



The default distance from the wall is 12 inches

If this value differs, fill in this box with the measured value.