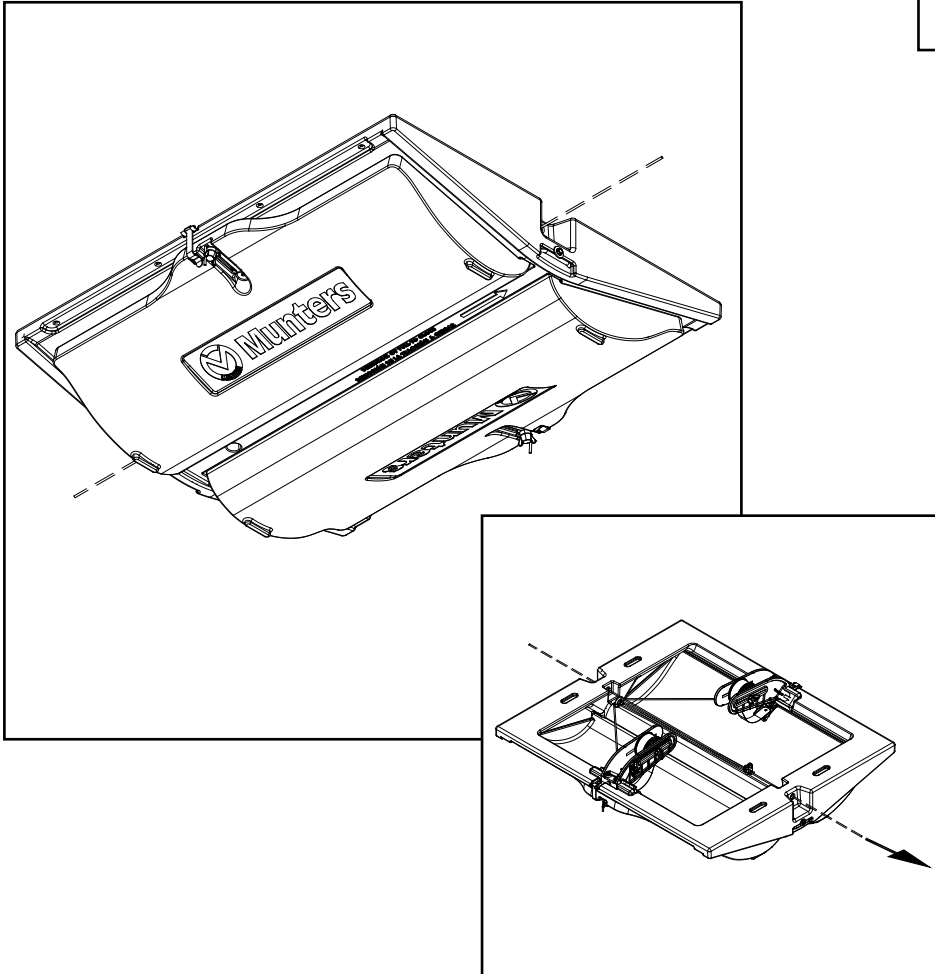


# BI28SPM Ceiling Inlet

## Instruction Manual



## BI28SPM Ceiling Inlet

Bi-Flow, Spring/Mechanical

Models: BI28SPM • BI28SPM-01



# BI28SPM Inlet

## Instructions for Use and Maintenance

### Thank You:

Thank you for purchasing a Munters inlet. Munters equipment is designed to be the highest performing, highest quality equipment you can buy. With the proper installation and maintenance it will provide many years of service.

### Please Note:

To achieve maximum performance and insure long life from your Munters product it is essential that it be installed and maintained properly. Please read all instructions carefully before beginning installation.

### Warranty:

For Warranty claims information see the "Warranty Claims and Return Policy" form QM1021 available from the [Munters Corporation office at 1-800-227-2376 or by e-mail at aghort.info@munters.com](mailto:aghort.info@munters.com).

### Conditions and Limitations:

- Products and Systems involved in a warranty claim under the "Warranty Claims and Return Policy" shall have been properly installed, maintained and operated under competent supervision, according to the instructions provided by Munters Corporation.
- Malfunction or failure resulting from misuse, abuse, negligence, alteration, accident or lack of proper installation or maintenance shall not be considered a defect under the Warranty.

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# Unpacking the Equipment

# 1.

## 1.1 Parts List

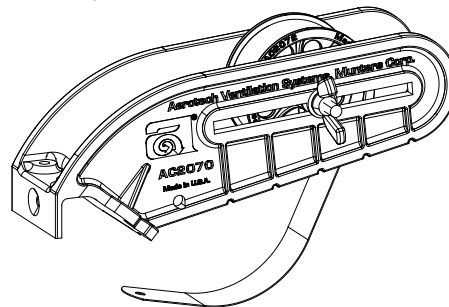
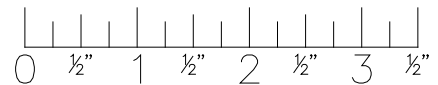
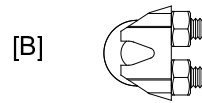
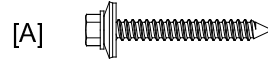
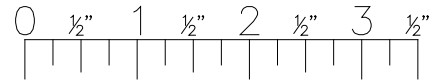
Before beginning installation, check the overall condition of the equipment. Remove packing materials, and examine all components for signs of shipping damage. Any shipping damage is the customer's responsibility and should be reported immediately to your freight carrier.

*Each BI28SPM Inlet includes:*

- 1 - Plastic Frame with 2 doors attached
- 1 - Insulation Stop, 12" tall
- 2 - Spring Counterweight Assembly
- 1 - Hardware Package as follows

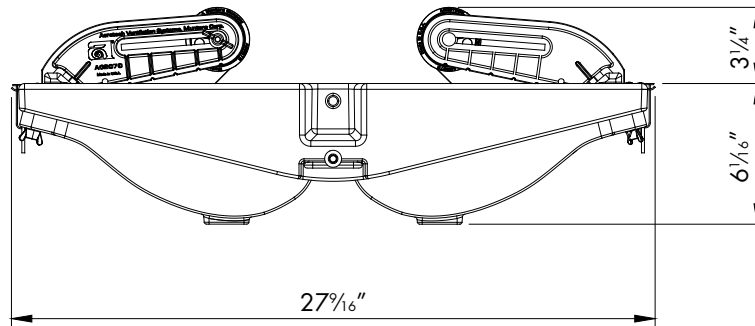
*HP1239 for BI28SP/BI28SPM Inlets*

ID	Qty.	Cat. No.	Description
[A]	8	KS1402	#9-15 x 1.5" Hex Head Screw
[B]	1	AC1381	1/8" Dia. Cable Clamp, ZP

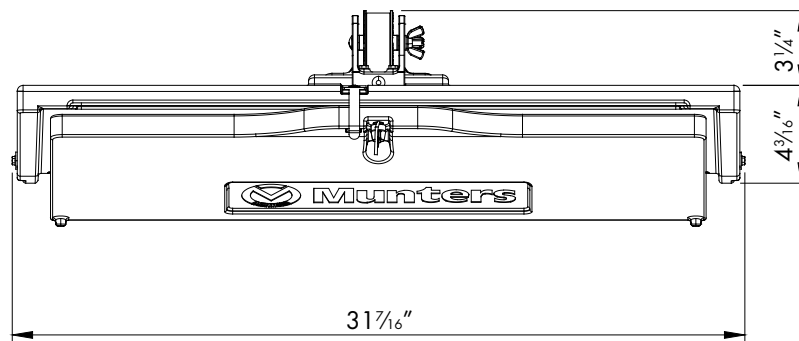


Spring Counterweight Assembly

## 1.2 Inlet Dimensions



End View



Side View

# Installation Instructions

# 2.

## 2.1 FRAMING

### Step 1

Construct a framed opening in ceiling that is 25½"W. x 25½"L. and fasten to trusses or bracing between trusses. Trim out framing with 'J'-trim if a metal ceiling is used. See [Figure 1A](#) and [1B](#). If inlet is being installed in a house with a Tri-Ply ceiling, construct frame as shown in [Figure 1C](#).

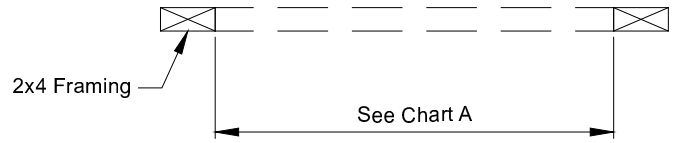


Figure 1A

**⚠ IMPORTANT**  
If installing inlets near heaters, it is recommended to install the BI28/BI48 inlet at a location far enough from heaters that will give a maximum temperature of 150°F. This should be approximately 2-3 ft. from the heater.

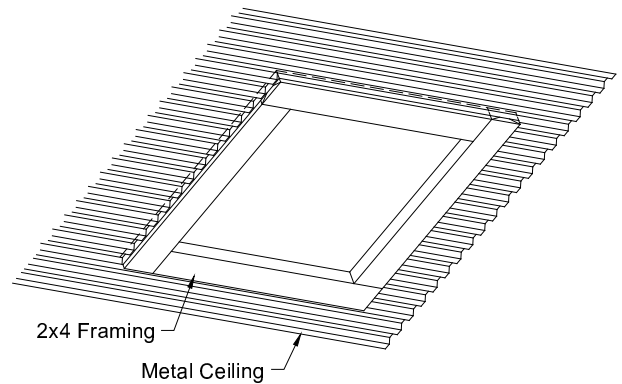


Figure 1B

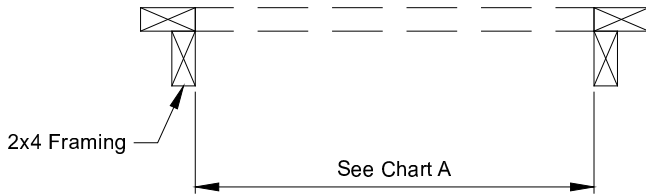
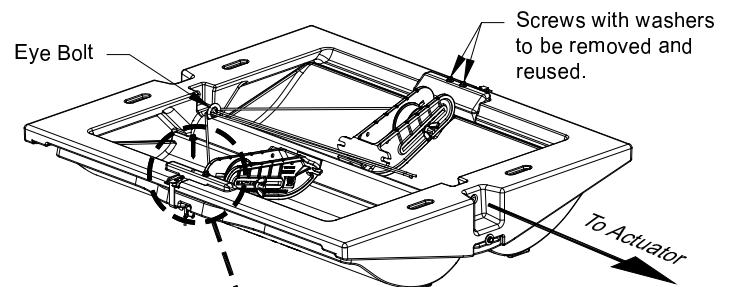


Figure 1C

### Step 2A

The Spring Counterweight Assemblies and other hardware will already be assembled as shown in [Figure 2](#). The Lift Line should be turned towards actuator and Eye Bolt will be away from actuator.



### Step 2B

The doors will be held closed with the latch. Keep doors latched and remove the (4) screws shown. While removing these screws make sure the washer comes off the inlet and stays with the screw. These screws will be used in Step 3. See [Figure 2](#).

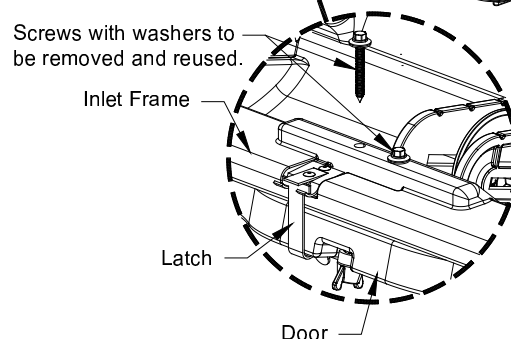


Figure 2

## 2.2 Inlet Mounting

### Step 3

Turn Spring Counterweight Assembly over and set on frame of inlet and secure assembly with (2) of the screws and washers removed in **Step 2B**. See **Figure 3**. Repeat for other Spring Assembly.

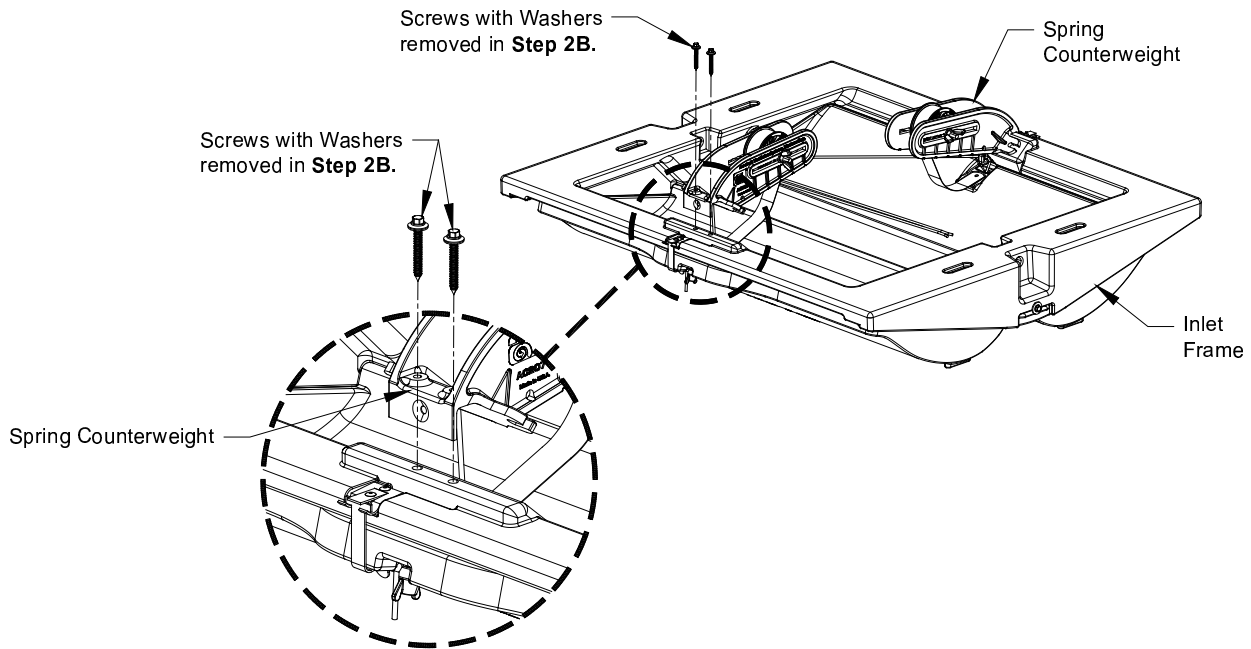


Figure 3

### Step 4

Install provided Insulation Stop into framed opening as shown using screws or staples (not provided). See **Figure 4**.

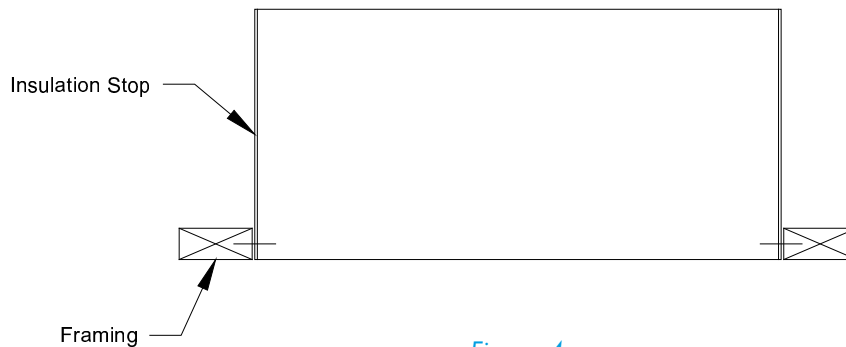


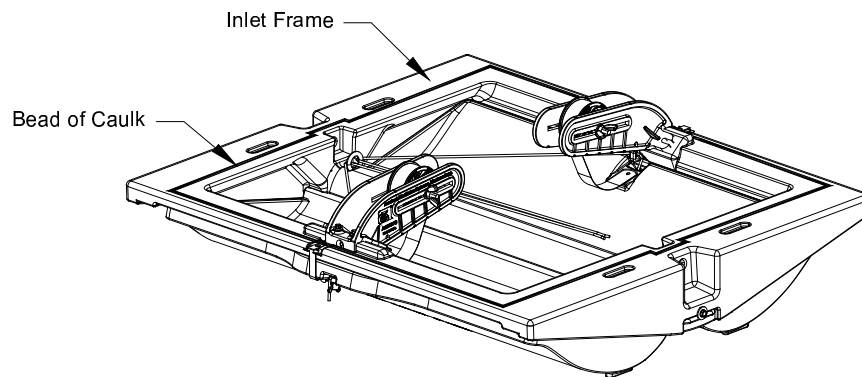
Figure 4

**Step 5**

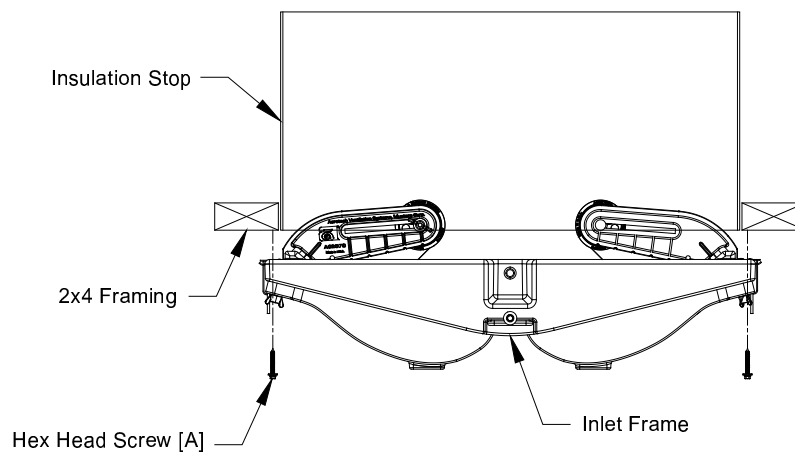
Apply bead of caulk around top of inlet as shown in [Figure 5A](#). Position inlet into framed opening and attach inlet using (8) Hex Head Screws [A] provided. [See Figure 5B](#). Be careful not to over tighten as this may pull the Inlet Frame out of shape.

**Step 6**

To ensure an airtight fit, caulk around outside of 2x4 Framing and Inlet Frame.



[Figure 5A](#)



[Figure 5B](#)

Step 7

Proceed to routing main actuator cable or rod through holes in Inlet Frame. It is required to utilize a spring or weight on actuator cable end opposite actuator. Once the cable is routed and the actuator is in the open position, begin connecting the Lift Lines from each inlet door to the actuator cable using Cable Clamp [B] provided. See Figure 6A and 6B.

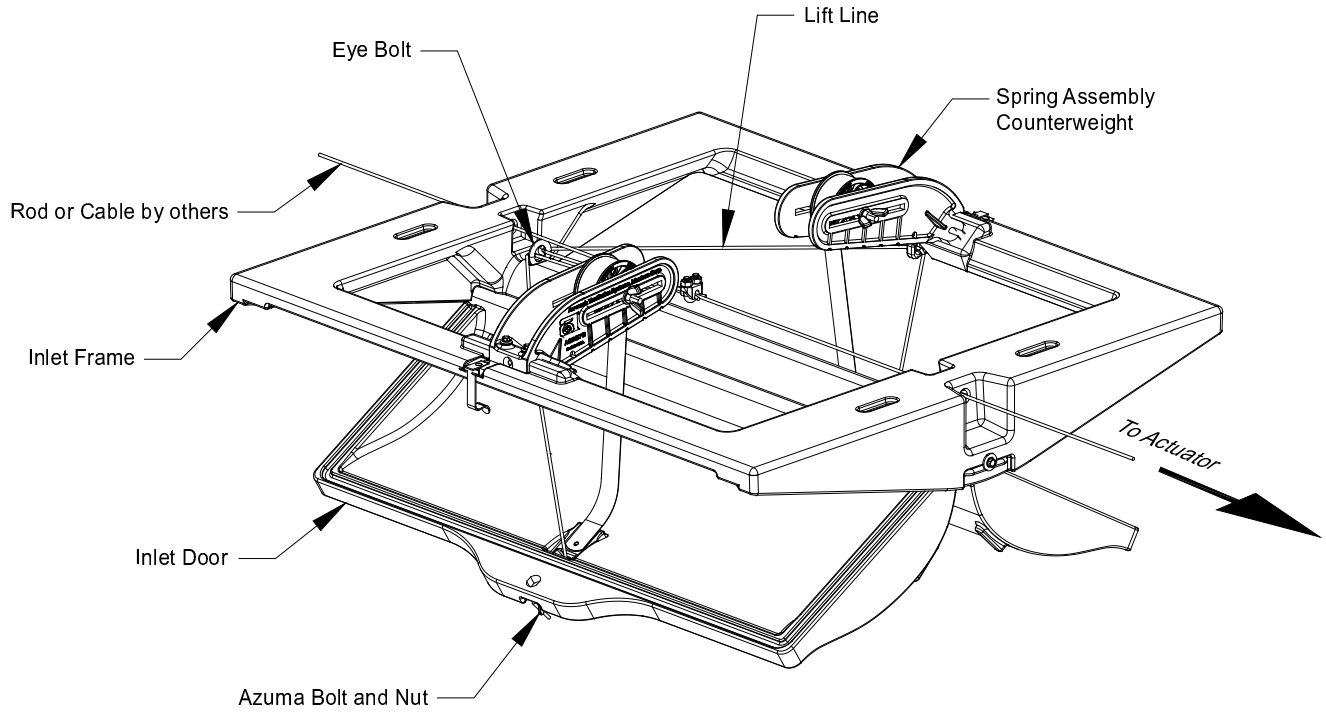


Figure 6A

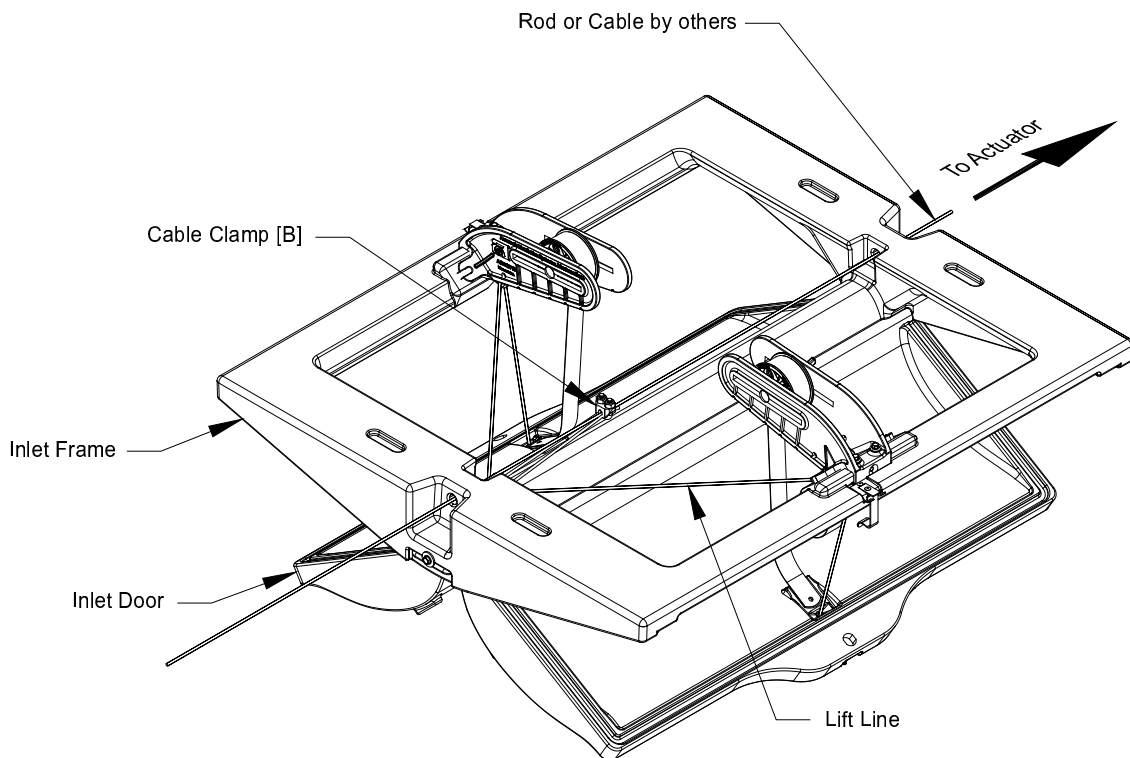


Figure 6B



# Latch Operation

# 3.

## Step 8

Latch is pre-installed near center of door. Rotate latch upward to unlock and downward to lock. When inlet is in normal operation, be sure latch is in up position so it does not interfere with door closing. See Figure 7A and 7B.

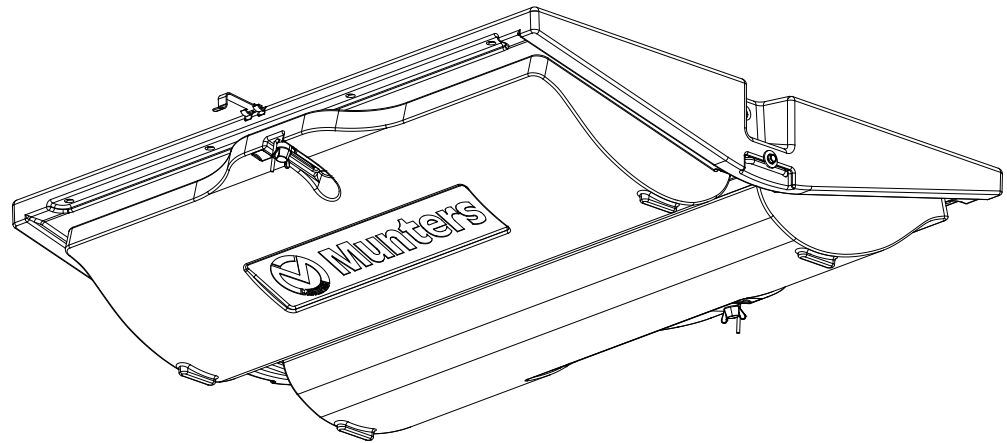


Figure 7A  
Latch Shown in Open Position

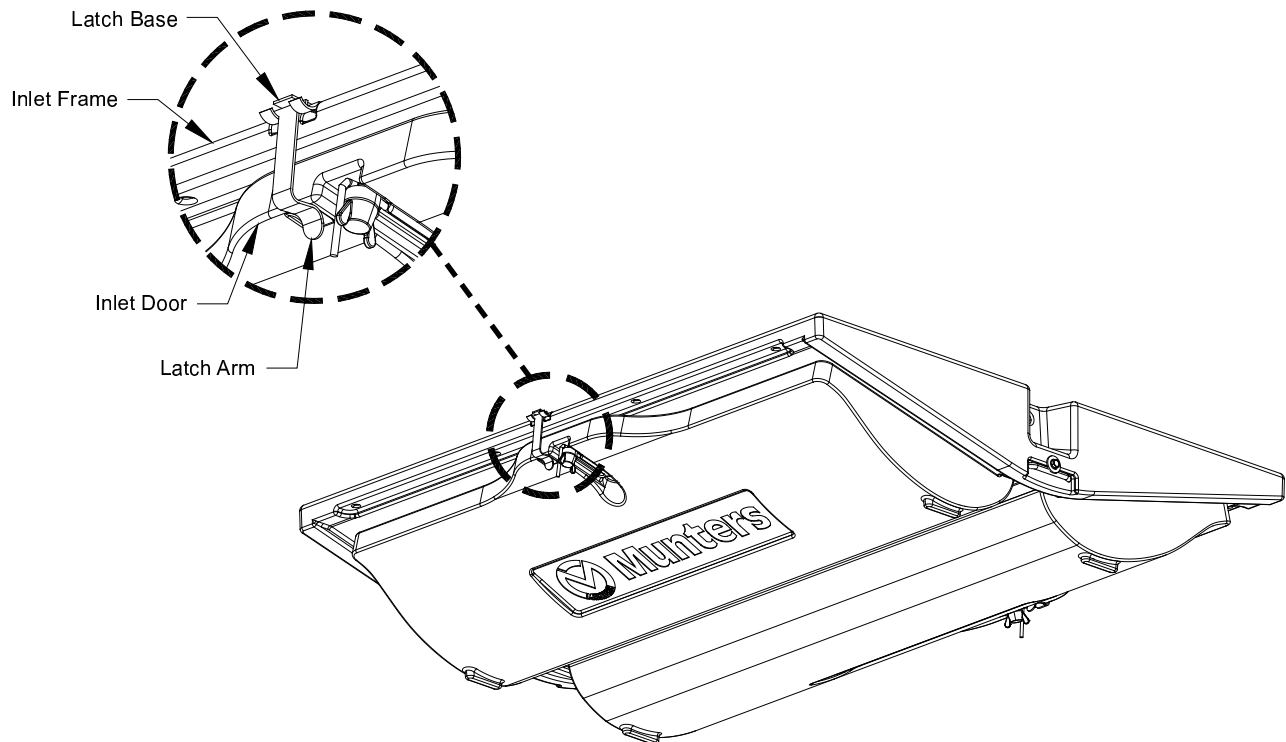


Figure 7B  
Latch Shown in Closed Position

## Step 9

Attach pulleys in line with the main rod or cable running through each BI28/BI48. See Figure 8A and 8B.

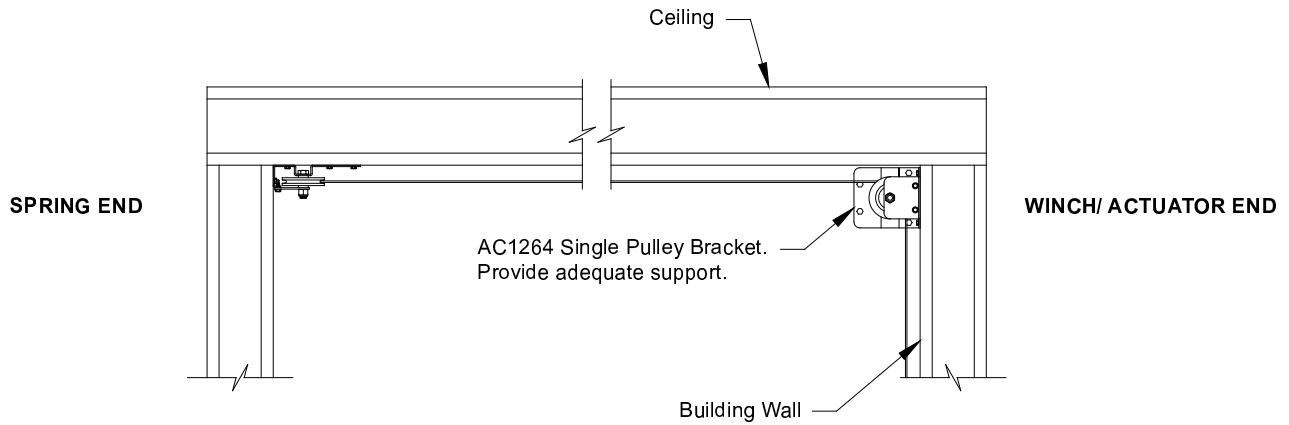


Figure 8A

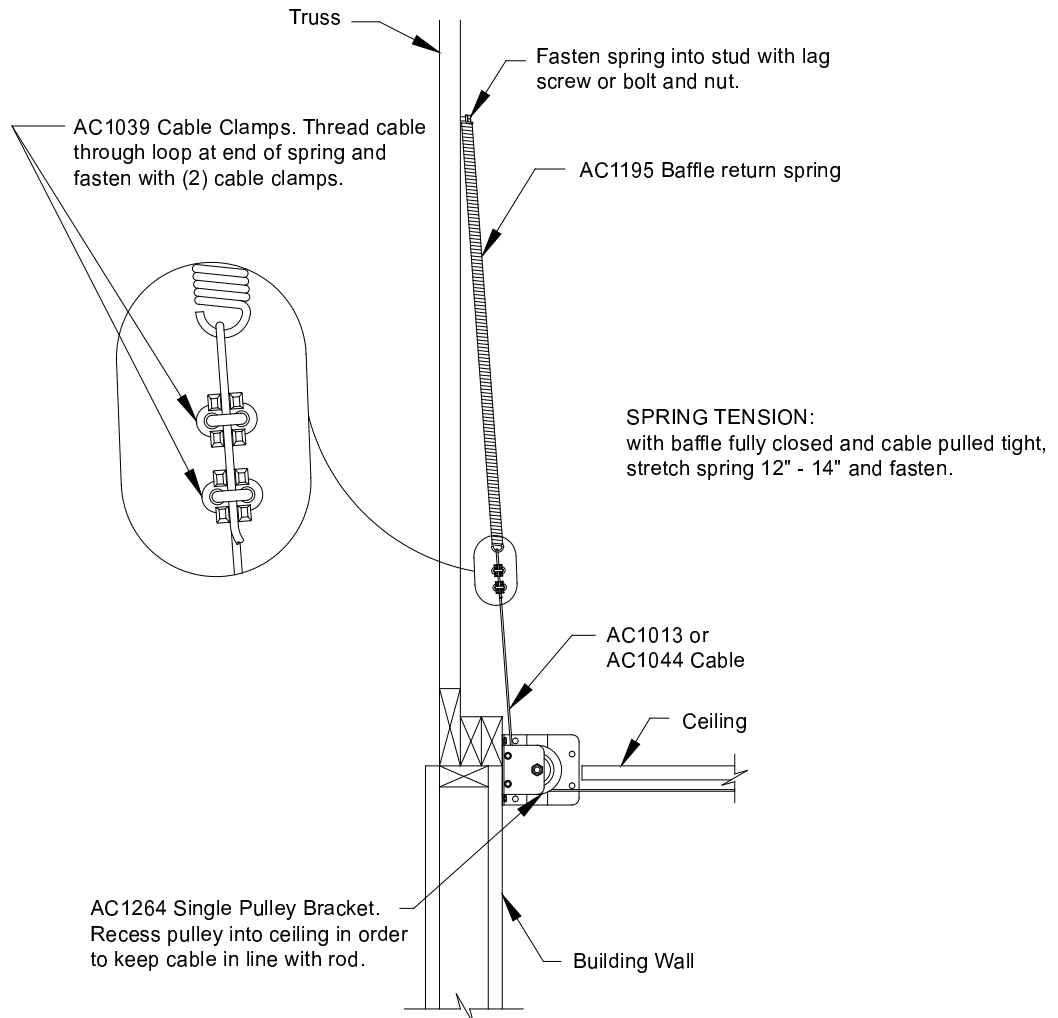


Figure 8B

**Step 10**

On each end of the run of BI28/BI48 inlets run a cable through pulleys to winch or actuator on one end and to weights or return spring on other end.

See Figure 8A, 8B and 9.

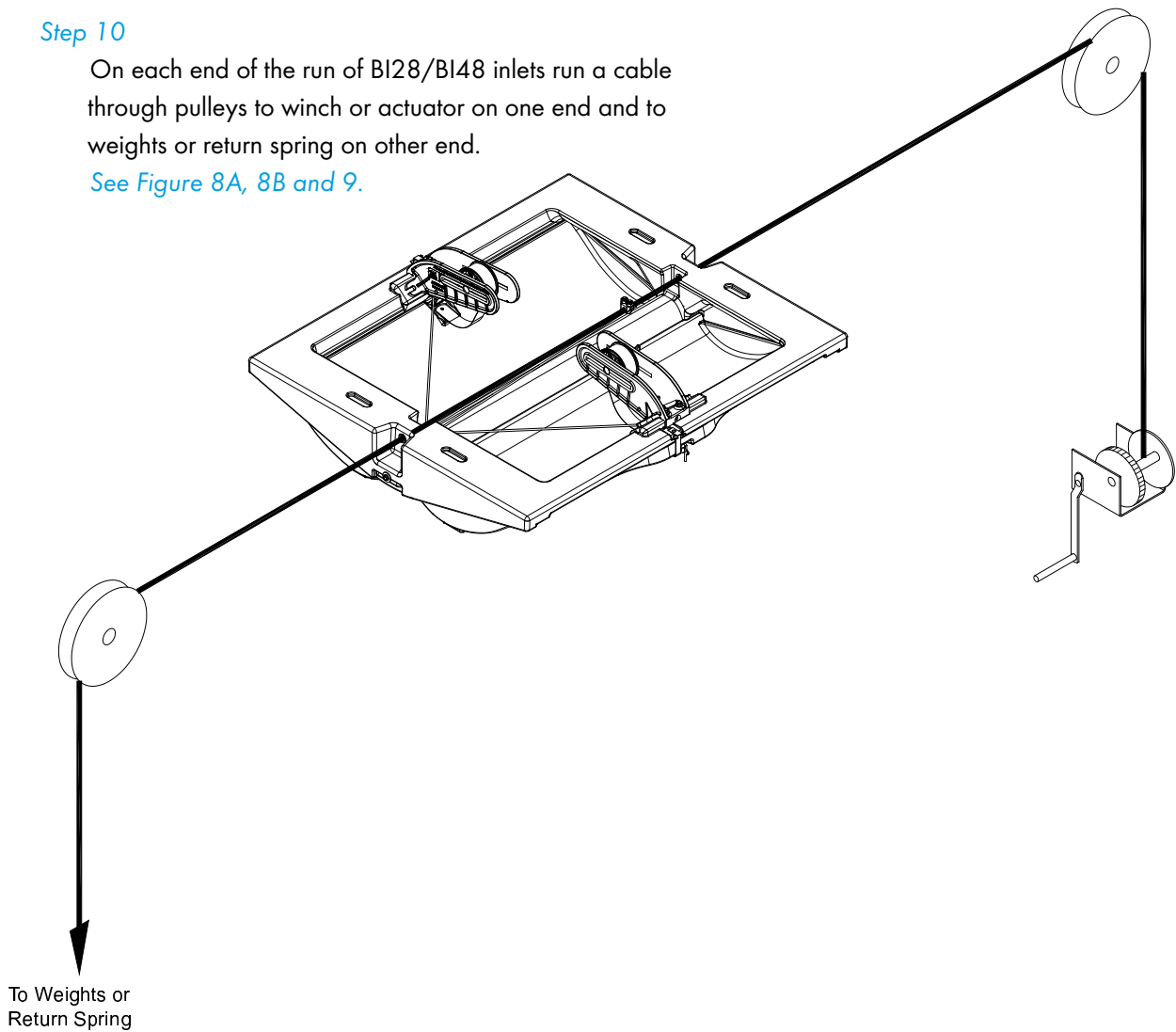


Figure 9

**Step 11**

With the winch or actuator at its fully closed position, check and readjust each BI28 door tightly closed. Use winch or actuator to open and close inlets a few times to make sure the doors open and close smoothly

## Note:

To achieve a lower static pressure move the spring toward hinges (inward) and to achieve a higher static pressure move spring towards outside of the inlet (outward). See Figure 10.

## Step 1

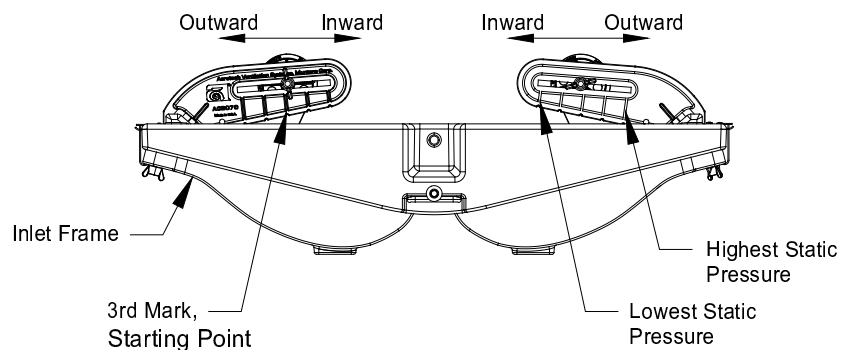
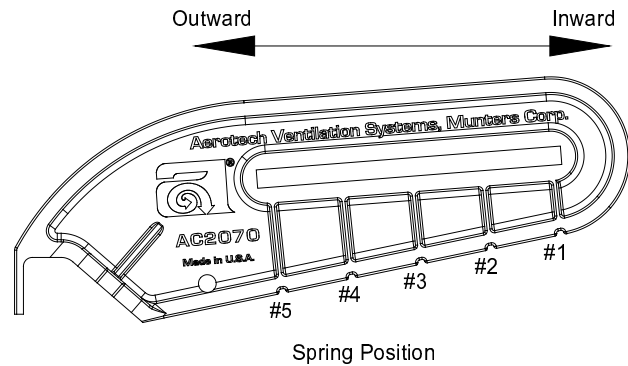
Start by setting each spring as light as possible, that still allows the doors to close when the fans are off. Note: installation on a sloped ceiling will typically require a heavier setting on the high (uphill) side and a lighter setting on the low (down hill) side.

## Step 2

With inlets winched fully closed, turn on your minimum ventilation fans. Then adjust (release) the mechanical hardware (actuator or winch) gradually until you achieve the desired static pressure. The winching limits the inlet door opening so that all the doors open evenly and the desired static pressure is achieved when the minimum ventilation fans run..

## Step 3

Once the winching is set, turn fans off and recheck to ensure all the inlets are closing fully.

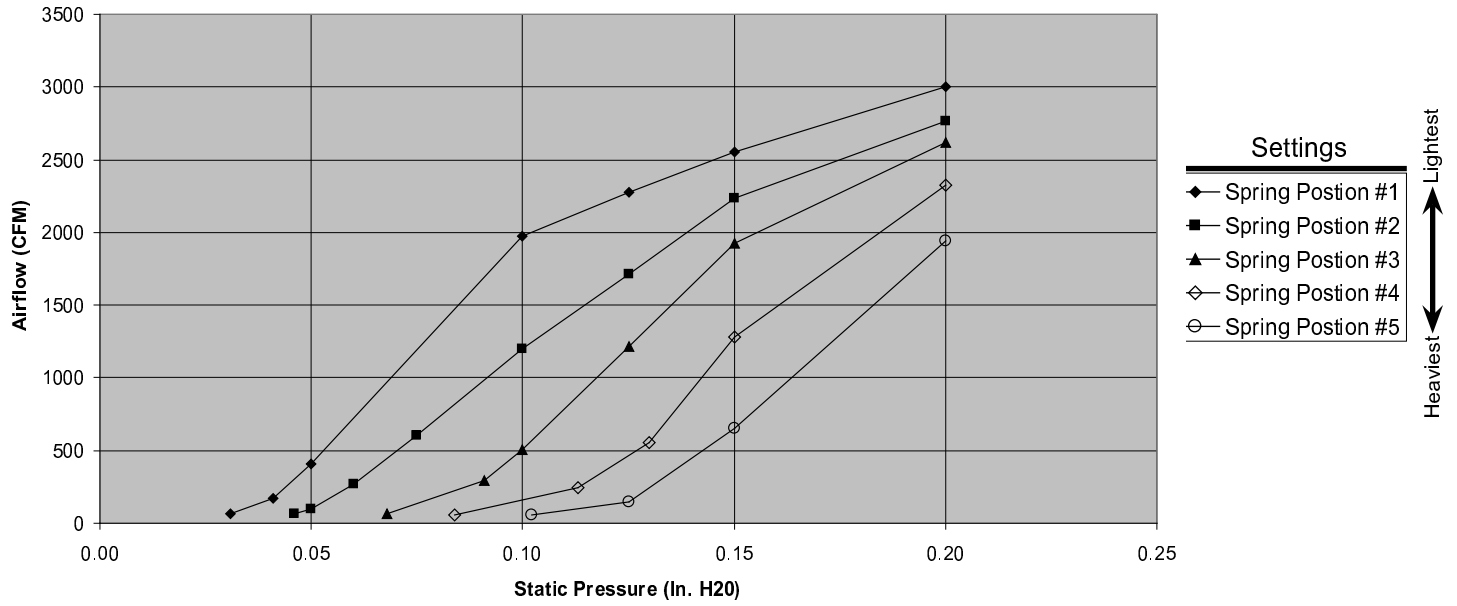


## Note:

Spring Position settings may vary from inlet to inlet. Adjust each inlet as needed.

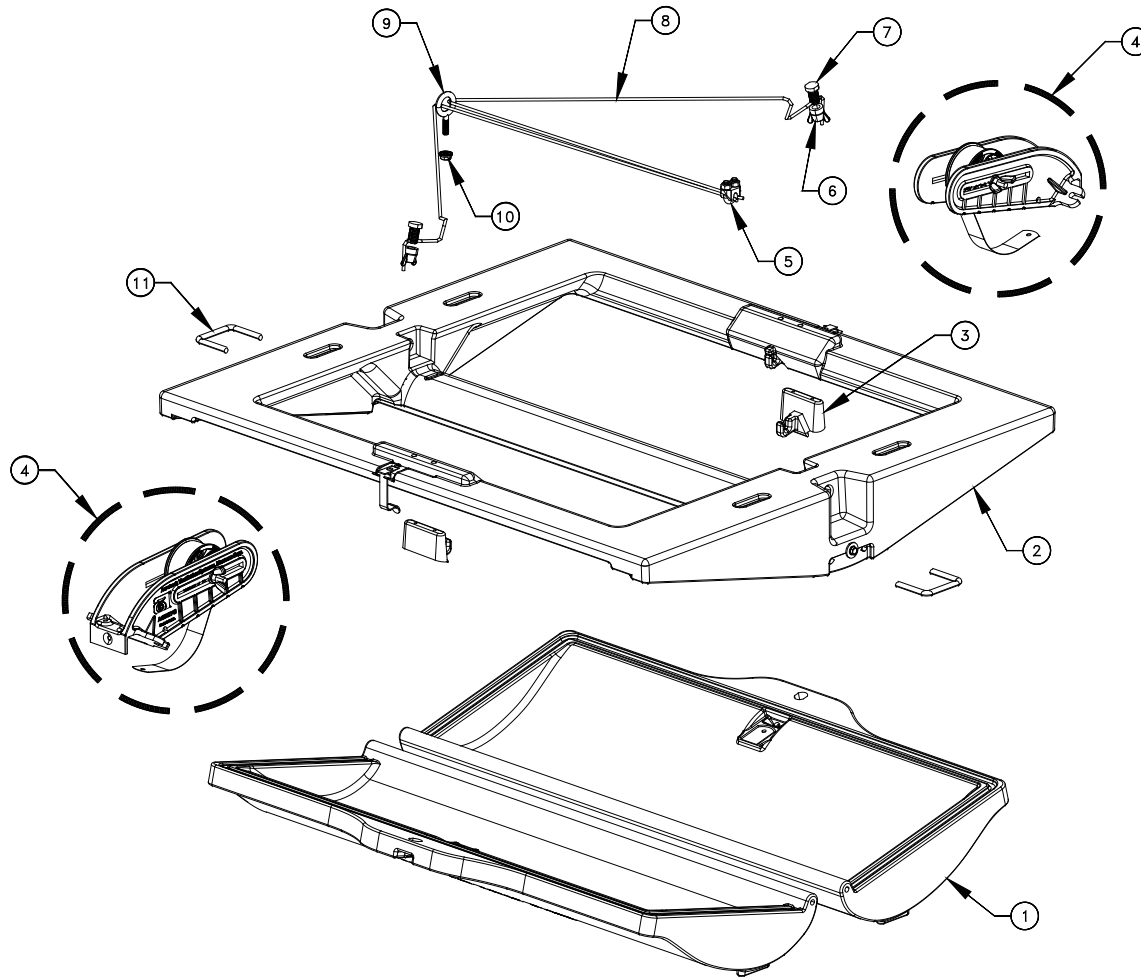
# Performance Data

# 6.



# Exploded View and Parts List

# 7.



Ref. No.	Cat. No.	Description	Quantity
1	AC2635	BI28 Inlet Door, Black Plastic	2
	AC2635-01	BI28 Inlet Door, w/Insulation, Black, Plastic	2
2	AC2630	BI28 inlet Frame, Black Plastic	1
3	AC2640	Lift Line Guide insert, BI28, Black Plastic	1
4	AC2664	Spring Counterweight assembly	2
	AC2070	Spring Reel mount Bracket for BI Series inlets	1
	AC2072	Spring Reel Spool, 1.25"W. x 2.75" O.D.	1
	KX1462	Constant Force Spring, 2.5 lb.	1
	AC2074	Spool Axle Sleeve, 3/8" O.D.	1
	KS1511	1/4" - 20 x 3" L. Carriage Bolt, Stainless Steel	1
	KN2301	1/4" - 20 Type A, Wing Nut, Nylon	1
	KW3002	1/4" Type A, Narrow Flat Washer, Stainless Steel	3
5	AC1381	1/8" Dia. Cable Clamp	1
6	AC0211	Azuma Bolt Only, Split type, Blue Plastic	2
7	AC0212	Azuma Nut Only, Wing type, Blue Plastic	2
8	AC1010	1/16" x 40"L. Braided Lift Line; White	2
9	KS2755	1/4" - 20 x 2"L. Closed Eye bolt, Stainless Steel	1
10	KN0702	1/4" - 20 Hex Serrated Flange Nut, Stainless Steel	1
11	AC2645	BI28 Inlet Door Hinge Pin, Stainless Steel	2

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BI28 Inlets are developed and produced by Munters Corporation, Lansing, Michigan U.S.A. 1-800-227-2376



Munters Europe AB, Isafjordsgatan 1, P.O. Box 1150, SE-164 26 Kista, Sweden. Phone +46 08 626 63 00, Fax +46 8 754 56 66.

Munters Corporation 2691 Ena Drive Lansing, MI 48917 U.S.A. Phone +1 800-227-2376, Fax +1 517-676-7078

[www.munters.us](http://www.munters.us)

**Australia** Munters Pty Limited, Phone +61 2 6025 6422, **Brazil** Munters Brasil Industria e Comercio Ltda, Phone +55 41 3317 5050, **Canada/US** Munters Corporation Lansing, MI Phone +1 517 676 7070, **China** Munters Air Treatment Equipment (Beijing) Co. Ltd, Phone +86 10 80 481 121, **Denmark** Munters A/S, Phone +45 9862 3311, **India** Munters India, Phone +91 20 3052 2520, **Indonesia** Munters, Phone +62 818 739 235, **Italy** Munters Italy S.p.A., Chiusavecchia, Phone +39 0183 52 11, **Japan** Munters K.K., Phone +81 3 5970 0021, **Korea** Munters Korea Co. Ltd., Phone +82 2 761 8701, **Mexico** Munters Mexico, Phone +52 818 262 54 00, **Russia** Munters AB, Phone +7 812 448 5740, **Singapore** Munters Pte Ltd., Phone +65 744 6828, **South Africa and Sub-Sahara Countries** Munters (Pty) Ltd., Phone +27 11 997 2000, **Spain** Munters Spain S.A., Phone +34 91 640 09 02, **Sweden** Munters AB, Phone +46 8 626 63 00, **Thailand** Munters Co. Ltd., Phone +66 2 642 2670, **Turkey** Munters Form Endüstri Sistemleri A.Ş, Phone +90 322 231 1338, **USA** Munters Corporation Lansing, MI Phone +1 517 676 7070, **Vietnam** Munters Vietnam, Phone +84 8 3825 6838, **Export & Other countries** Munters Italy S.p.A., Chiusavecchia Phone +39 0183 52 11