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# PRESSURE INDEPENDENT AIRFLOW REGULATOR AIR-YNX™

#### A. DESCRIPTION

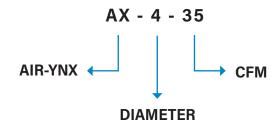
The UES Model AIR-YNX is a pressure independent airflow regulator that automatically balances the airflow rate over a specified operating differential pressure range. AIR-YNX is used in HVAC duct systems to provide automatic balancing of airflow. AIR-YNX has an innovative, self-adjusting orifice which enables it to continuously self-balance. AIR-YNX can be used in several different applications within cooling and heating such as supply, return or exhaust duct systems. Whenever dynamic balancing and consistent airflow control is required AIR-YNX provides the solution.

#### **B. CHARACTERISTICS**

- Product is UL labeled and complies with UL 2043 standard for fire test for heat and visible smoke
- Self-adjusting in pressure ranges from 0.2"-0.8" wg or 50-200 pa (higher pressures from 0.6"-2.4" wg or 150-597 pa available)
- Airflow is easily adjustable using a T10 torx screwdriver
- Operating range between -25°F to +140°F
- Available for new construction and renovation
- Direct fit use in round ducts



#### **SELECTION SAMPLE**



#### C. AIRFLOW RANGES AND SIZES

AIR-YNX is manufactured with airflow ranges (CFM) as listed in the table.



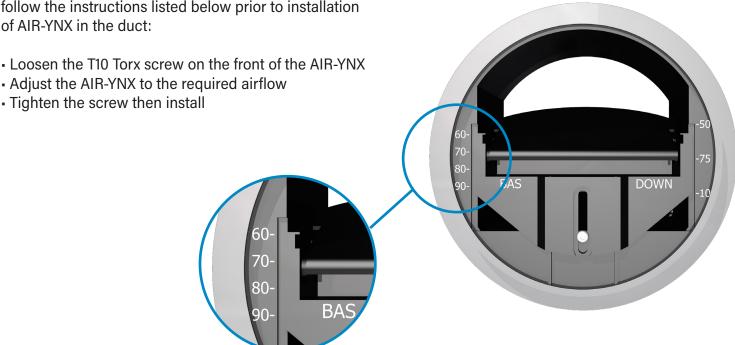
NOMINAL DIAMETER	MODEL	AIRFLOW RANGE (CFM)
3	AX-3-	9, 12, 15, 18, 20, 24, 27, 30
4	AX-4-	9, 12, 15, 18, 20, 24, 27, 30
4	AX-4-	30, 35, 40, 45, 47, 53, 60
5	AX-5-	9, 12, 15, 18, 20, 24, 27, 30
5	AX-5-	30, 35, 40, 45, 47, 53, 60
5	AX-5-	60, 65, 70, 77, 83, 90, 95, 100, 105
6	AX-6-	9, 12, 15, 18, 20, 24, 27, 30
6	AX-6-	30, 35, 40, 45, 47, 53, 60
6	AX-6-	60, 65, 70, 77, 83, 90, 95, 100, 105
6	AX-6-	105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175
8	AX-8-	60, 65, 70, 77, 83, 90, 95, 100, 105
8	AX-8-	105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175
8	AX-8-	175, 188, 205, 218, 235, 247, 265, 277, 295
10	AX-10-	105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175
10	AX-10-	175, 188, 205, 218, 235, 247, 265, 277, 280, 295
10	AX-10-	295, 310, 325, 340, 355, 370, 380, 400, 410, 430, 440

# PRESSURE INDEPENDENT AIRFLOW REGULATOR AIR-YNX<sup>TM</sup>

#### D. INSTALLATION

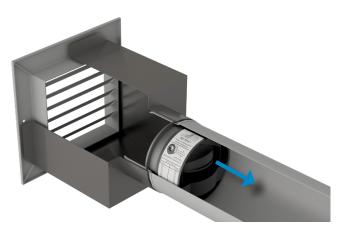
#### D-1. AIRFLOW SETTINGS AND ADJUSTMENTS

AIR-YNX is shipped set at a specified airflow; however, field adjustment can be made. For field adjustment follow the instructions listed below prior to installation of AIR-YNX in the duct:



#### D-2. MOUNTING

Model AIR-YNX shall be installed in vertical or horizontal rigid ducts or register boxes without the use of screws, rivets or any other fastening device. A lip seal that is part of the AIR-YNX will ensure airtightness. In horizontal ducts AIR-YNX must be installed with "BAS DOWN" as marked on the front of the product. It is essential to comply with the direction of airflow as marked on the sleeve. When installed properly, AIR-YNX will provide the specified flow rate instantly and continuously. When using AIR-YNX in conjunction with a diffuser the minimum installation distance is 3x duct length in supply mode and 1x duct length in exhaust mode.



Installation in Exhaust Duct



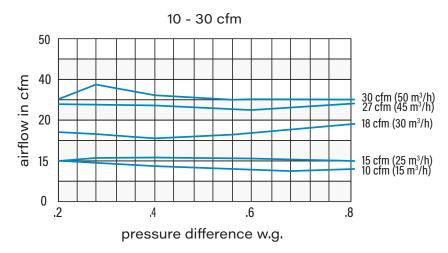
Installation in Supply Duct

# PRESSURE INDEPENDENT AIRFLOW REGULATOR AIR-YNX<sup>TM</sup>

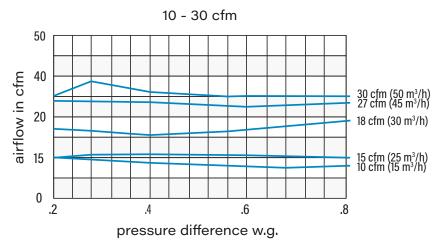
#### **E. PERFORMANCE AND TABLES**

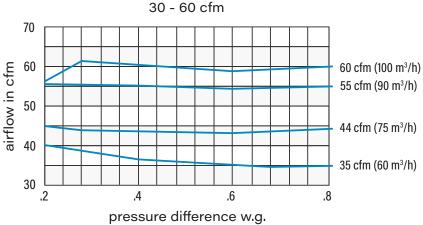
The tables shown on pages 3-7 indicate the airflow variations in CFM for diameters 3-10 inches according to the pressure differential. The airflow values given are averages and may vary by 15% with CFM less than 30 and 10% with CFM greater than 30.

# 3" AIR-YNX™ (75 mm)

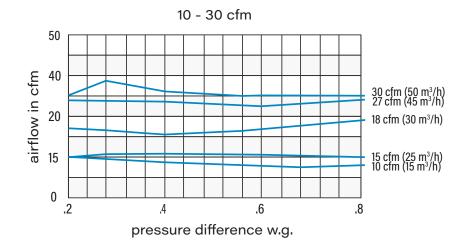


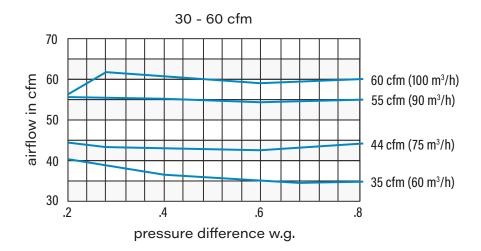
## 4" AIR-YNX™ (100 mm)

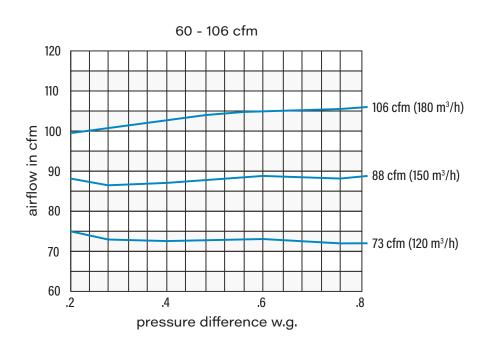




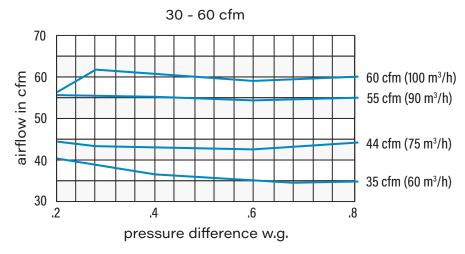
# 5" AIR-YNX™ (125 mm)

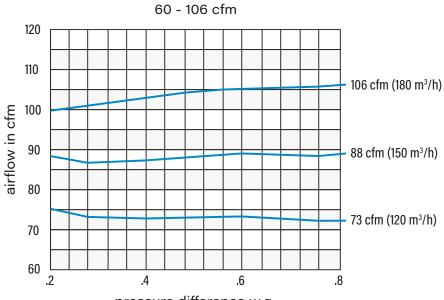


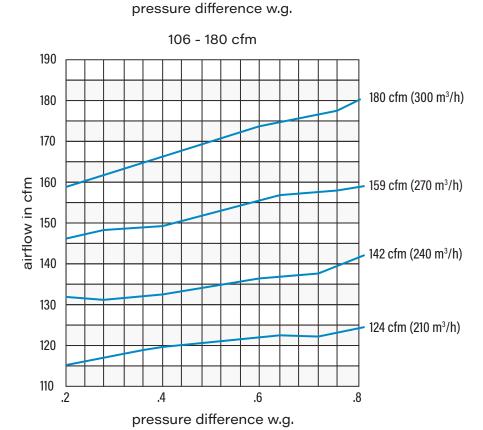




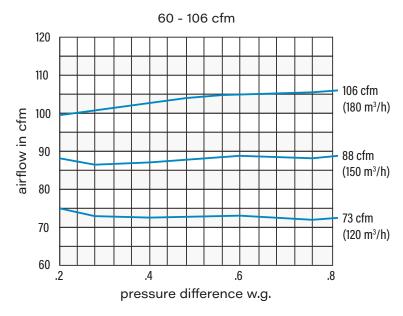
# 6" AIR-YNX™ (150 mm)

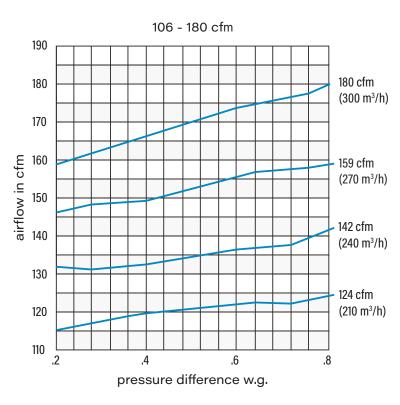


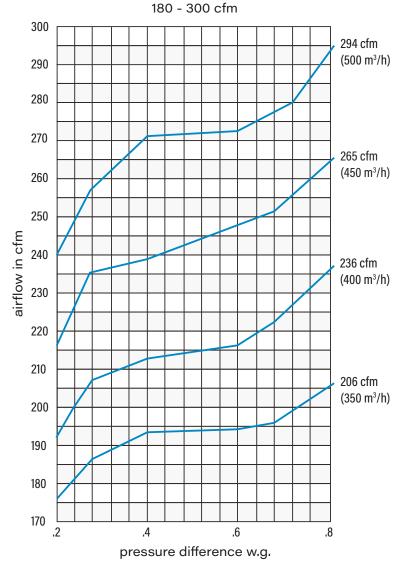




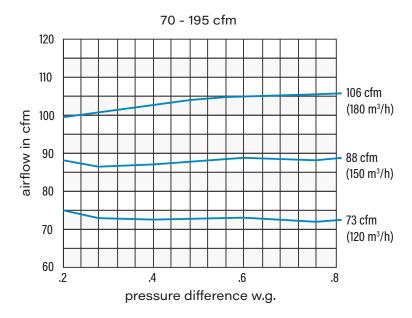
# 8" AIR-YNX<sup>TM</sup> (200 mm)

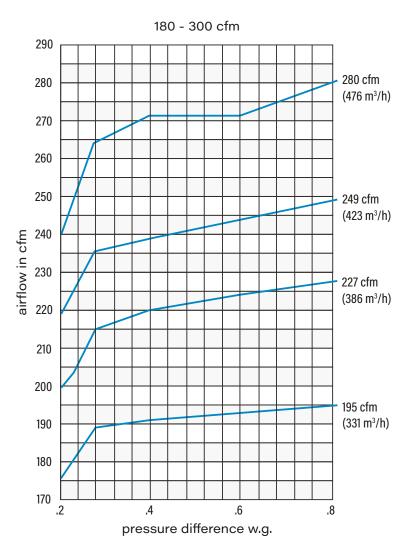


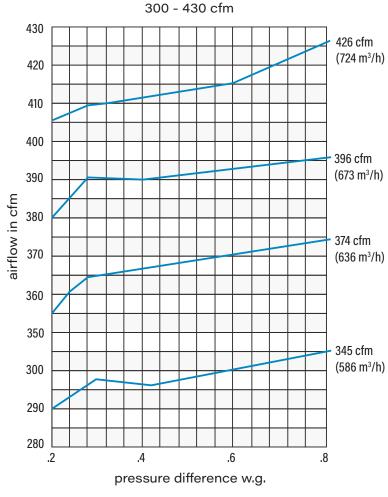




## 10" AIR-YNX™ (250 mm)







#### **F. WARRANTY**

Seller warrants its product to buyer. AIR-YNX<sup>™</sup> shall be free from defects in material and workmanship for a period of 5-years from date of shipment so as long as it is paid for, utilized under normal conditions and properly installed. Warranty not applied to conditions beyond sellers control.

## MODEL AXS FOR SUPPLY/EXHAUST DUCTS

## **AIR-YNX**™

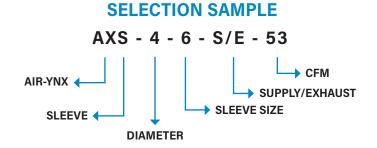
PRESSURE INDEPENDENT AIRFLOW REGULATOR

#### **G. AVAILABLE OPTION**

#### **G-1. GENERAL DESCRIPTION**

Model consists of an AIR-YNX<sup>™</sup> installed in a heavy-gauge, galvanized steel sleeve. This arrangement is sized to fit inside standard duct riser openings.

AIR-YNX™ is used in a variety of applications to provide an innovative solution for balancing by maintaining constant airflow.



#### **AXS SELECTION TABLE**

SLEEVE NOMINAL (W X H)	AIR-YNX MODEL AX DIAMETER	AIRFLOW (CFM) MIN-MAX	AIRFLOW RANGE (CFM)
6 x 6	4	9 - 60	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60
6 x 6	5	9 - 105	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105
8 x 8	4	9 - 60	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60
8 x 8	5	9 - 105	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105
8 x 8	6	9 - 175	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175
10 x 10	4	9 - 60	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60
10 x 10	5	9 - 105	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105
10 x 10	6	9 - 175	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175
10 x 10	8	60 - 295	60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175, 188, 205, 218, 235, 247, 265, 277, 295
12 x 12	4	9 - 60	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60
12 x 12	5	9 - 105	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105
12 x 12	6	9 - 175	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175
12 x 12	8	60 - 295	60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175, 188, 205, 218, 235, 247, 265, 277, 295
12 x 12	10	105 - 440	105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175, 188, 205, 218, 235, 247, 265, 277, 295, 310, 325, 340, 355, 370, 380, 400, 410, 430, 440

All dimensions in inches

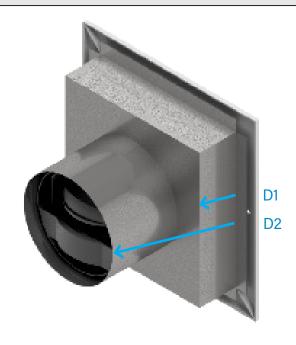
Sleeve dimensions with 3/8" undercut

D1 dimension is 1-5/8"

D2 dimension is 5-1/2"

Custom sizes are available





#### MODEL AXSG FOR SUPPLY/EXHAUST DUCTS

## $AIR-YNX^{TM}$

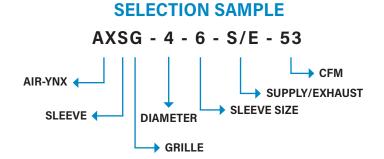
PRESSURE INDEPENDENT AIRFLOW REGULATOR

#### **G. AVAILABLE OPTION**

#### **G-2. GENERAL DESCRIPTION**

Model consists of an AIR-YNX<sup>™</sup> installed in a heavy-gauge, galvanized steel sleeve and supplied with a single deflection grille. This arrangement is sized to fit inside standard duct riser openings.

 $AIR-YNX^{TM}$  is used in a variety of applications to provide an innovative solution for balancing by maintaining constant airflow.



#### **AXSG SELECTION TABLE**

SLEEVE NOMINAL (W X H)	AIR-YNX MODEL AX DIAMETER	AIRFLOW (CFM) MIN-MAX	AIRFLOW RANGE (CFM)
6 x 6	4	9 - 60	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60
6 x 6	5	9 - 105	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105
8 x 8	4	9 - 60	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60
8 x 8	5	9 - 105	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105
8 x 8	6	9 - 175	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175
10 x 10	4	9 - 60	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60
10 x 10	5	9 - 105	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105
10 x 10	6	9 - 175	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175
10 x 10	8	60 - 295	60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175, 188, 205, 218, 235, 247, 265, 277, 295
12 x 12	4	9 - 60	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60
12 x 12	5	9 - 105	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105
12 x 12	6	9 - 175	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175
12 x 12	8	60 - 295	60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175, 188, 205, 218, 235, 247, 265, 277, 295
12 x 12	10	105 - 440	105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175, 188, 205, 218, 235, 247, 265, 277, 295, 310, 325, 340, 355, 370, 380, 400, 410, 430, 440

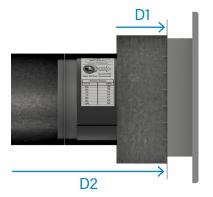
All dimensions in inches

Sleeve dimensions with 3/8" undercut

D1 dimension is 1-5/8"

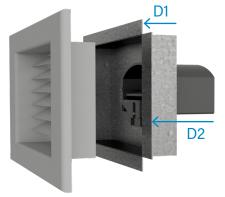
D2 dimension is 5-1/2"

Custom sizes are available









Installation in Supply Mode with Grille

Installation in Exhaust Mode with Grille

#### MODEL AXSFDG FOR SUPPLY/EXHAUST DUCTS

#### **AIR-YNX**™

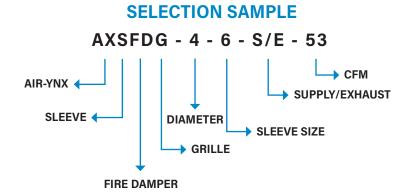
PRESSURE INDEPENDENT AIRFLOW REGULATOR

#### G. AVAILABLE OPTIONS

#### **G-3. GENERAL DESCRIPTION**

Model consists of an AIR-YNX<sup>™</sup> and Fire Damper, which is installed in a heavy-gauge, galvanized steel sleeve, and supplied with a single deflection grille. The arrangement is sized to fit inside of the standard duct riser openings.

AIR-YNX<sup>TM</sup> is used in a variety of applications to provide an innovative solution for balancing by maintaining constant airflow while achieving and maintaining the fire integrity rating of the duct system.



#### **AXSFDG SELECTION TABLE**

SLEEVE NOMINAL (W X H)	AIR-YNX MODEL AX DIAMETER	AIRFLOW (CFM) MIN-MAX	AIRFLOW RANGE (CFM)
6 x 6	4	9 - 60	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60
6 x 6	5	9 - 105	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105
8 x 8	4	9 - 60	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60
8 x 8	5	9 - 105	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105
8 x 8	6	9 - 175	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175
10 x 10	4	9 - 60	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60
10 x 10	5	9 - 105	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105
10 x 10	6	9 - 175	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175
10 x 10	8	60 - 295	60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175, 188, 205, 218, 235, 247, 265, 277, 295
12 x 12	4	9 - 60	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60
12 x 12	5	9 - 105	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105
12 x 12	6	9 - 175	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175
12 x 12	8	60 - 295	60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175, 188, 205, 218, 235, 247, 265, 277, 295
12 x 12	10	105 - 440	105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175, 188, 205, 218, 235, 247, 265, 277, 295, 310, 325, 340, 355, 370, 380, 400, 410, 430, 440

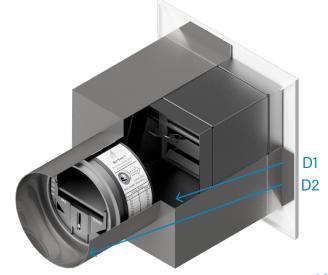
All dimensions in inches Sleeve dimensions with 3/8" undercut D\* dimension for AX-4 is 9.5," all others are 10.5" Custom sizes are available

#### **COMPONENTS**

AIR-YNX™: The UES Model AIR-YNX™ is a pressure independent airflow regulator that automatically balances the airflow rate over a specified operating differential pressure range. AIR-YNX™ is used in HVAC duct systems to provide automatic balancing of airflow. AIR-YNX™ has an innovative, self-adjusting orifice which enables it to continuously self-balance. AIR-YNX™ can be used in several different applications within cooling and heating such as supply, return or exhaust duct systems. Whenever dynamic balancing and consistent airflow control is required AIR-YNX™ provides the solution.

**Grille:** Manufactured from stainless steel and supplied with a single deflection grille (double deflection available as an option).

**Fire Damper:** Manufactured from galvanized steel and has a fire resistance rating of 1-1/2 hour.



#### MODEL AXSSCRD FOR SUPPLY/EXHAUST DUCTS

#### **AIR-YNX**™

PRESSURE INDEPENDENT AIRFLOW REGULATOR

#### G. AVAILABLE OPTIONS

#### **G-4. GENERAL DESCRIPTION**

Model consists of an AIR-YNX<sup>™</sup> and UL 555C classified ceiling radiation damper installed in a heavy-gauge, galvanized steel sleeve consiting of a side take-off collar. May be supplied with an optional single deflection grille. The arrangement is for floor/ceiling mount assemblies.

# AXSSCRD - 4 - 6 - S/E - 53 AIR-YNX SIDE CEILING RADIATION DAMPER CEILING RADIATION DAMPER

#### **AXSSCRD SELECTION TABLE**

SLEEVE NOMINAL (W X H)	AIR-YNX MODEL AX DIAMETER	AIRFLOW (CFM) MIN-MAX	AIRFLOW RANGE (CFM)
6 x 6	4	9 - 60	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60
6 x 6	5	9 - 105	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105
8 x 8	4	9 - 60	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60
8 x 8	5	9 - 105	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105
8 x 8	6	9 - 175	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175
10 x 10	4	9 - 60	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60
10 x 10	5	9 - 105	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105
10 x 10	6	9 - 175	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175
10 x 10	8	60 - 295	60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175, 188, 205, 218, 235, 247, 265, 277, 295
12 x 12	4	9 - 60	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60
12 x 12	5	9 - 105	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105
12 x 12	6	9 - 175	9, 12, 15, 18, 20, 24, 27, 30, 35, 40, 45, 47, 53, 60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175
12 x 12	8	60 - 295	60, 65, 70, 77, 83, 90, 95, 100, 105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175, 188, 205, 218, 235, 247, 265, 277, 295
12 x 12	10	105 - 440	105, 112, 118, 125, 130, 135, 140, 147, 153, 160, 165, 170, 175, 188, 205, 218, 235, 247, 265, 277, 295, 310, 325, 340, 355, 370, 380, 400, 410, 430, 440

All dimensions in inches

Sleeve dimensions with 3/8" undercut

D dimension for AX-4 is 9.5," all others are 10.5"

Custom sizes are available

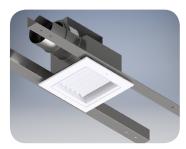
#### **COMPONENTS**

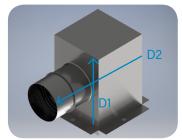
AIR-YNX<sup>™</sup>: The UES Model AIR-YNX<sup>™</sup> is a pressure independent airflow regulator that automatically balances the airflow rate over a specified operating differential pressure range. AIR-YNX<sup>™</sup> is used in HVAC duct systems to provide automatic balancing of airflow. AIR-YNX<sup>™</sup> has an innovative, self-adjusting orifice which enables it to continuously self-balance. AIR-YNX<sup>™</sup> can be used in several different applications within cooling and heating such as supply, return or exhaust duct systems. Whenever dynamic balancing and consistent airflow control is required AIR-YNX<sup>™</sup> provides the solution.

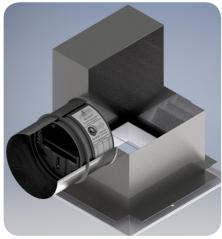
**Ceiling Radiation Damper:** Manufactured from 22-gauge galvanized steel. Dampers are rated and qualifies per UL 555C.

#### **OPTIONS:**

**Grille:** Manufactured from stainless steel and supplied with a single or double deflection grille. Grille is sold separately.







Installation shown in Supply Configuration

Unicon Equipment Sales, Inc.

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