

# DuraStack<sup>®</sup> Pro



Modular Double-Wall Positive Pressure Chimney  
Boiler Breeching & Stack and Engine Exhaust  
Grease Duct

DuraVent<sup>®</sup>

# DuraStack® Pro

The DuraStack® Pro Series, Models DCL, DAS1, DIS1, DIS2, DIS4, and DIS3Z venting systems are designed to offer the ultimate in installation convenience and versatility for a variety of applications. Certified for commercial chimney, boiler breeching and stack, diesel exhaust and grease duct applications. Thick-gauge material for the inner pipe and coupling provides a strong and rigid assembly. Self-centering flue extension significantly simplifies and accelerates the installation process.

## A TRADITION OF EXCELLENCE

For over 50 years, DuraVent has been an innovator in the venting field and a market leader in North America. Instrumental in the company's growth has been an ongoing focus on product improvement and the introduction of new, innovative products. The DuraStack Pro venting systems are prime examples of our constant quest for more cost-effective, versatile and reliable product solutions.

## DESIGNED WITH PERFORMANCE IN MIND

Available in sizes from 5" to 36" diameters, the DIS models offer a choice of 1", 2", 4", or 3" insulated double wall chimneys, and the DAS1 offers a 1" air insulated product. For premium corrosion resistance and durability, the inner flue is constructed from 0.035" thick 304 or 316 Stainless Steel. This is coupled with a 0.024" thick 304 Stainless Steel or Galvalume (Aluminum-zinc coated) steel outer casing. DIS models are lined with the highest-quality AES Wool insulation, densely packed to ensure low heat loss, maximum draft, and the lowest clearance to combustible materials.



**LISTED**

**MH 61322**

**MH 62023**

**MH 14420**

### LISTED TO STANDARDS:

**UL 103**

**UL 103HT**

**ULC S604**

**ULC C959**

**UL 1978**

**UL 2221 - DIS3Z only**

**CAN/ULC S662**

**UL 2561 - except DIS3Z**

**UL 1777 - DCL only**

**CAN/ULC S635**



# DURAVENT DURASTACK® PRO A POSITIVE PRESSURE SYSTEM

## The DuraStack® Pro Series Difference:

Features	Benefits
Self-centering	<ul style="list-style-type: none"> <li>• Components line up easily and quickly</li> <li>• Fast and efficient installations</li> </ul>
Thinner-gauge material on outside casing	<ul style="list-style-type: none"> <li>• Lower weight</li> <li>• Easier to install</li> </ul>

## REFRACTORY AES WOOL INSULATION

DuraVent understands the needs of the industry and is always pushing the design envelope to embrace new technologies.

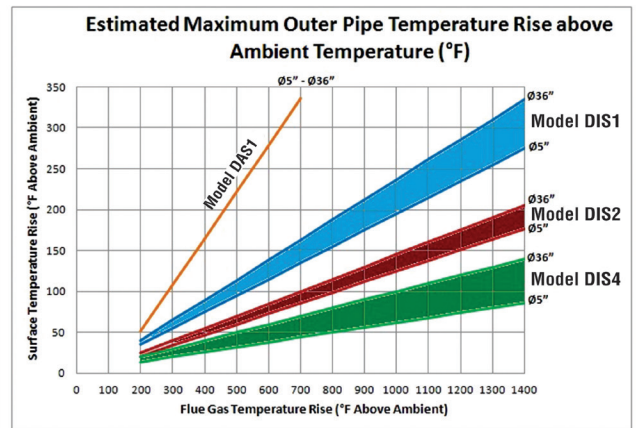
With our dedicated effort to offer the best performing products, DuraStack Pro Series utilizes Refractory Alkaline Earth Silicate (AES) Wool Insulation. AES Wool displaces the old “ceramic fiber” type insulations many manufacturers are still using today.

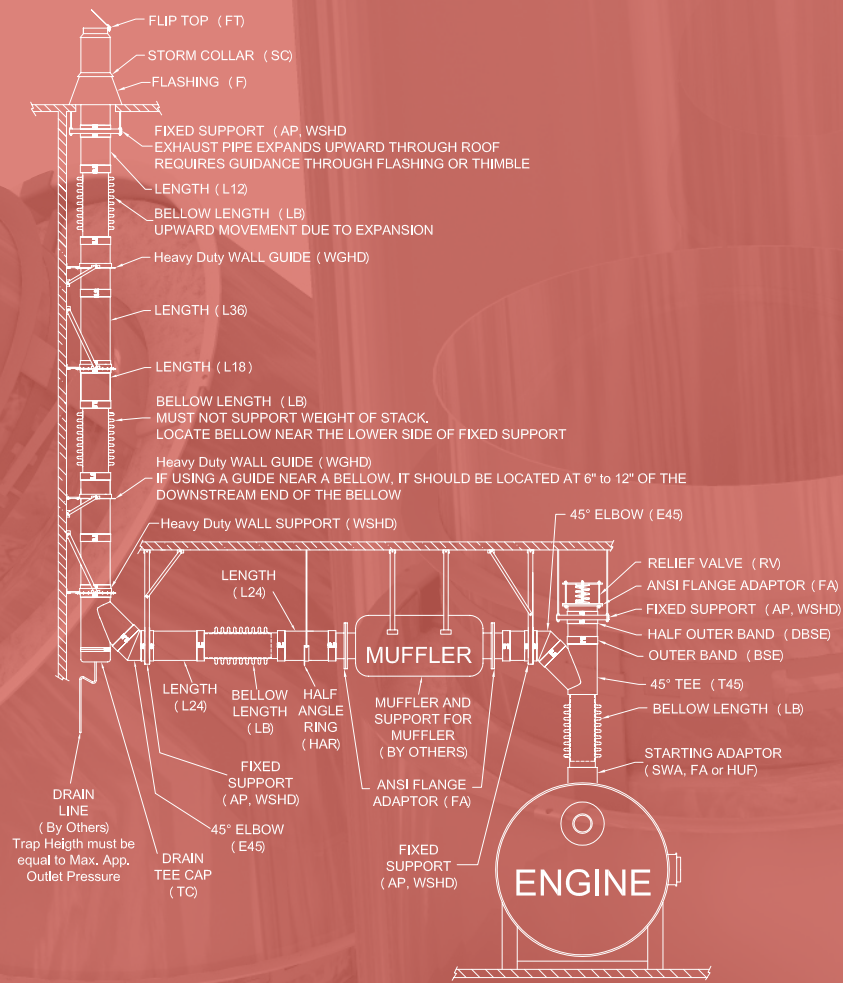
The AES Wool featured in our products meets the requirements requested under NOTA Q and are exonerated from classification and labelling regulation in Europe.

When compared to ceramic fiber, AES Wool insulation offers:

- **Approximately 80% lower Biopersistence\* half-life**
- **Superior thermal insulation properties**
- **Improved tensile strength, compression & resilience**
- **Increased energy efficiency, leading to significant weight and cost savings**

\*Biopersistence is the ability of fibers to resist removal from the lungs by natural mechanisms (i.e., dissolution and breakage). Ceramic fiber insulation is classified as a Class 2 Carcinogen in the European Union and classified as a possible carcinogen in the United States and Canada.





**TYPICAL ENGINE EXHAUST INSTALLATION**

## Selection guide

### PRESSURE RATED CHIMNEYS & VENT

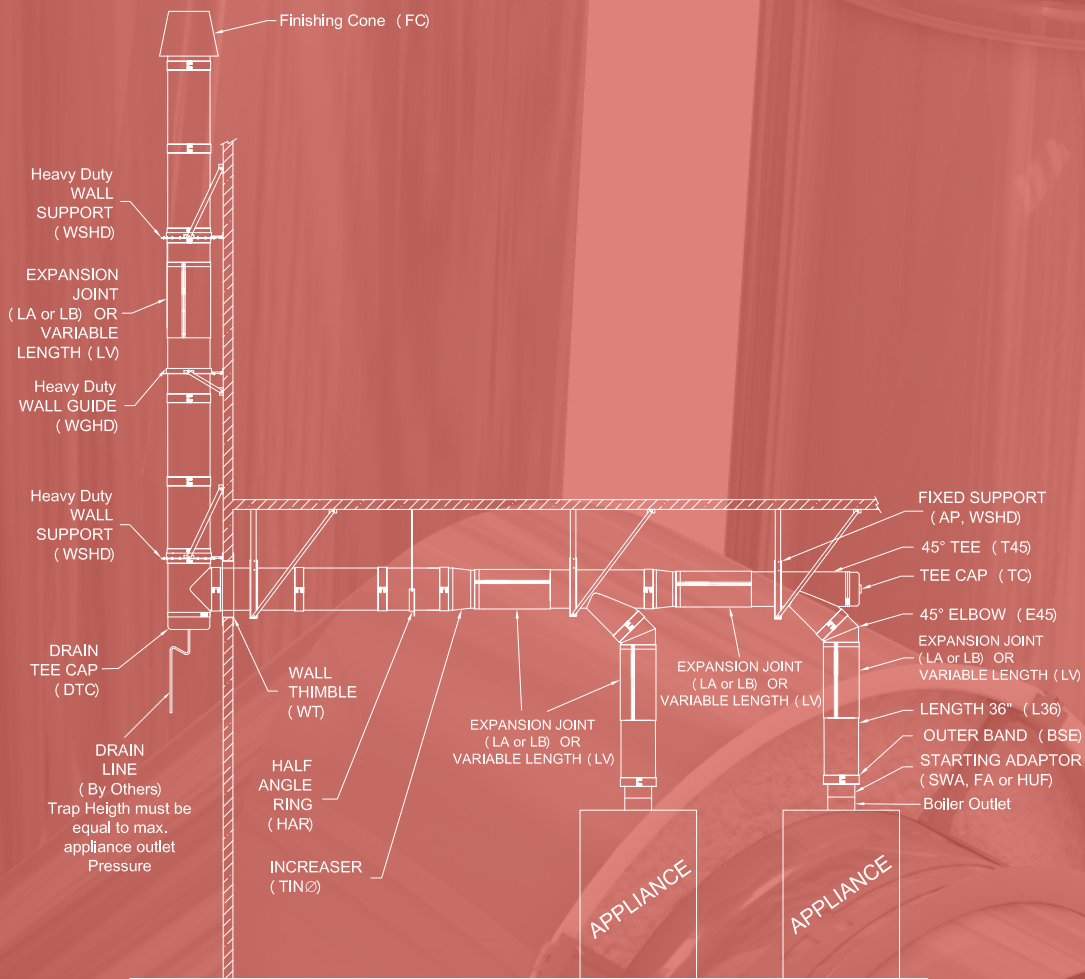
MODELS	DCL	DAS1	DIS1	DIS2	DIS4	DIX3Z
DESCRIPTION	Single Wall	Double Wall	Double Wall	Double Wall	Double Wall	Double Wall
TYPE OF INSULATION	none	1" Air Insulated	1" AES Wool	2" AES Wool	4" AES Wool	3" AES Wool
LISTING	UL 2561 UL 103 ULC S604 ULC C959 UL 1978	UL 2561 UL 103 ULC S604 ULC C959 UL 1978	UL 103 HT UL 103 UL 2561 ULC S604 ULC C959 UL 1978	UL 103 HT UL 103 UL 2561 ULC S604 ULC C959 UL 1978	UL 103 HT UL 103 UL 2561 ULC S604 ULC C959 UL 1978	UL 1978 UL2221 ULC S662
PRESSURE	Positive (up to 60" w.c.) --- Neutral --- Negative					

CONSTRUCTION		
WALL	Flues	Casings
THICKNESS	0.035"	0.024"
OPTIONS OF MATERIALS	304, 316 Stainless	Galvalume, 304

DIAMETERS AVAILABLE	
Ø5" to Ø14"	Increment of 1"
Ø16" to Ø36"	Increment of 2"

APPLICATIONS					
Chimneys	Vents	Stationary Combustion Engines	Stacks	Solid Fuel Burning Appliances	Stationary Gas Turbines
Commercial Fireplaces	Building Heating Appliances	Fume Exhausts / Venting <sup>1</sup>	Air duct	1400°F Chimneys	Grease Duct

1 - Consult appropriate authority to determine fume compatibility with 304-316 stainless steels & silicone sealants



**TYPICAL BOILER INSTALLATION**

## Selection guide

### PART NUMBERS

These instructions identify major model parts by name and part number.

#### Example:

DIS1 36" length with inside diameter 14" made of SS inner liner and SS 304 outer casing: Code = DIS1-14L36BC.

<b>DIS1-</b>	<b>14</b>	<b>L36</b>	<b>BC</b>
Model	Dia.	Part	Material

DAS1 30° elbow with inside diameter 22" made of 304 inner flue and galvalume outer casing: Code = DAS1-22E30CE.

<b>DAS1-</b>	<b>22</b>	<b>E30</b>	<b>CE</b>
Model	Dia.	Part	Material

DCL wall support for 8" diameter grease duct made of galvalume: Code = **DCL8WSE**:

<b>DCL</b>	<b>8</b>	<b>WS</b>	<b>E</b>
Model	Dia	Part	Material

### Material Code Designations

B	Type 316 Stainless Steel
C	Type 304 Stainless Steel
E	Alu-Zinc coating (Galvalume)

#### Example:

DIS1-6T90CC

DIS1-6 = 6" inside diameter

T90 = 90 Tee

CC = 304/304 Inner/Outer Material

**Use only factory-supplied components. Failure to do so will void the certification and the warranty of the chimney system.**

### EFFECTIVE LENGTH AND THICKNESS

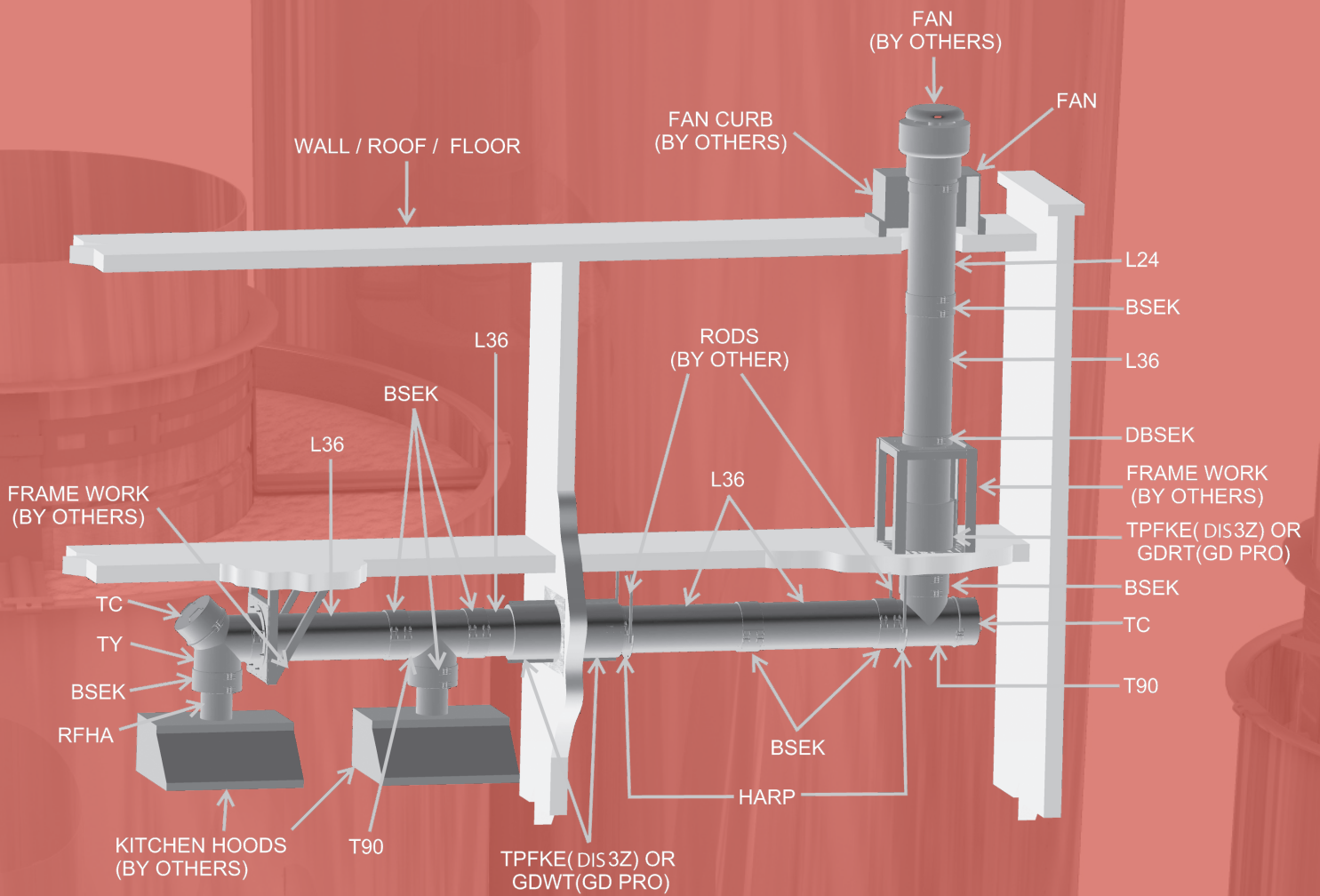
The effective length is the length of the part when it is assembled.

#### Effective length

Model	Length	Thickness for Ø5" to Ø36"	
L36	36 1/8"	Inner Wall:	0.035"
L24	24 1/8"	Outer Wall:	0.024"
L18	17 5/8"		
L12	11 5/8"		

### Material / Thickness

Models	Material		Thickness	
	Exterior	Interior	Exterior	Interior
<b>DIS3Z Ø5" TO Ø36"</b>	304 / Galvalume	304 / 316	0.025"	0.035"
<b>DCL Ø5" TO Ø36"</b>	--	304 / 316	--	0.035"



**TYPICAL GREASE DUCT INSTALLATION**

## Selection guide

**Clearance to Combustible (Unenclosed Surrounding)  
(from the outer band)**

**Grease Duct - UL 1978 (500°F)**

Ø	DAS1	DIS1	DIS2 and DIS4	DCL	DIS3Z*
5	4	2	1	18	0
6	5	2	1	18	0
7	5	2	1	18	0
8	5	2	1	18	0
9	5	2	1	18	0
10	5	2	1	18	0
11	5	2	1	18	0
12	6	2	1	18	0
13	6	2	1	18	0
14	6	2	1	18	0
16	6	3	1	18	0
18	7	3	2	18	0
20	7	3	2	18	0
22	7	3	2	18	0
24	8	3	2	18	0
26	8	4	2	18	0
28	8	4	2	18	0
30	9	4	2	18	0
32	9	4	3	18	0
34	9	4	3	18	0
36	10	5	3	18	0

Dimensions are in inches

Note: Clearance to non combustible is 0" for all models and diameter

\* 2 hr Fire Rates for DIS3Z per UI 2221

**Minimum Air Space CLEARANCE to Unenclosed Combustible Surroundings (adjacent to maximum of two walls).**

**Building Heating Appliance & 1400°F Chimney**

Duct Model	Flue Diameter Ø (in)	Clearance to Combustible (in)	Clearance to Non-Combustible (in)
DCL*	Ø5 to Ø36	18	0
DAS1	Ø5 to Ø6	4	0
	Ø7 to Ø14	5	0
	Ø16 to Ø22	6	0
	Ø24 to Ø30	7	0
	Ø32 to Ø36	8	0
DIS1 (UL 103 Type HT Ø5 to Ø24 only)	Ø5 to Ø6	1	0
	Ø7 to Ø14	2	0
	Ø16 to Ø22	3	0
DIS2 & DIS4 (UL 103 Type HT Ø5 to Ø24 only)	Ø24 to Ø30	4	0
	Ø32 to Ø36	5	0
	Ø5 to Ø14	1	0
	Ø16 to Ø30	2	0
	Ø32 to Ø36	3	0

Dimensions are in inches

\*Building heating appliance only

The term 'Pressure Stack' typically refers to positive pressure chimneys that can be used for boiler breeching and stack, as well as diesel and turbine exhaust, building heating equipment, industrial furnaces, processing equipment, kilns and ovens, and other heavy duty applications with high temperature exhaust requirements. DuraVent's Pro Series is also certified for use as Grease Duct, adding to its versatility and use in commercial applications.

In the United States, factory built chimneys are intended for use in accordance with NFPA 211, the Standard for Chimneys, Fireplaces, Vents, and Solid-Fuel Burning Appliances, and in accordance with models codes such as the International Mechanical Code, the International Residential Code, and the Uniform Mechanical Code. In Canada, factory built chimneys are intended for use in accordance with the National Building Code of Canada, Installation Code for Oil Burning Equipment, CAN/CSA-B139, and for Gas Burning Equipment, CAN/CGA-B149.1 and CAN/CGA-B149.2.

Factory built chimneys are designed, tested, and certified for installation inside or outside of buildings, or both, to transport flue gases to the outside. DuraVent's DuraStack Pro series of modular double-wall positive pressure venting systems have been designed and engineered to not only meet, but exceed the rigorous requirements of many test standards

Below is a brief summary of the standards that DuraStack Pro was tested and certified under. For more details about the specifics of our Underwrites Laboratories (UL) product listings, consult the UL Online Certifications Directory.

#### **UL 103 BUILDING HEATING APPLIANCE CHIMNEY LISTING:**

Under this category, models DCL, DAS1, DIS1, DIS2, and DIS4 have been determined suitable for venting flue gases at temperatures not exceeding 538°C (1000°F) under continuous operating conditions from gas, liquid, oil or solid fuel fired appliances. Also complies with operation (less than one hour) at temperatures not exceeding 740°C (1400°F) and brief operation (maximum 10 minutes) at temperatures not exceeding 906°C (1700°F). Building heating appliance chimneys are suitable for use with building heating appliances and low heat appliances as described in the chimney selection chart of national fire protection association (nfpa) standard no. 211.

#### **UL 103(HT) - STANDARD FOR FACTORY-BUILT CHIMNEYS FOR RESIDENTIAL TYPE AND BUILDING HEATING APPLIANCES**

The UL-103 standard applies to factory-built chimneys intended for venting gas, liquid, and solid-fuel fired residential-type appliances and building heating appliances in which the maximum continuous flue-gas outlet temperatures do not exceed 1000°F (538°C).

Tests included in this standard are designed to test the structural and thermal properties of the chimney and includes tests such as the Thermal Shock Test, Temperature Test (at 1000°F, 1400°F, 1700°F, and if required 2100°F). In order to qualify for the UL-103HT listing, a chimney that is tested under the UL-103 standard must successfully complete the requirements of the 2100°F (1149°C) Flue Gases Temperature Test, conducted 3 times. After being subjected to the tests listed, as applicable, a chimney shall be capable of being used further. The following results indicate compliance:



- **No part of the chimney has become damaged or permanently distorted to an extent that it or the chimney assembly does not continue to function as intended.**
- **The effectiveness of any required protective coating or finish on metal parts has not been reduced.**
- **A ceramic material shows no evidence of cracking, disintegration, or spalling to the extent that serviceability of any part of an assembly has been impaired.**
- **Cracks are not observable in porcelain enamel used as a required protective coating when the surface is examined under a microscope of 60 magnification.**
- **The reflectivity of a surface has not been impaired when the reflectivity is utilized to reduce the risk of fire.**
- **Burning or scaling of metal parts is not evident upon visual observation.**
- **The effectiveness of insulating material has not been reduced.**

Additional tests included in this standard are the Positive Pressure Applications Test, Draft Test, Vertical Support Test, Strength Tests (Impact, Longitudinal Force, Load Test for Chimney Elbows, Joint Load, and Joint Torsion Test), Wind Load Test, Rain Test, and other tests related to the components used in the chimney construction.

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#### **UL 2561 - STANDARD FOR 1400 DEGREE FAHRENHEIT FACTORY-BUILT CHIMNEYS**

This standard applies to factory-built 1400 degree Fahrenheit chimneys intended for venting gas, liquid, and solid-fuel-fired appliances in which the maximum continuous flue-gas temperatures do not exceed 1400°F (760°C).

Similar in nature to UL-103(HT), this standard covers many of the same tests designed to test the structural and thermal properties of the chimney. UL-2561 is intended for chimneys that will be used in a more industrial application where flue gas exhaust temperatures are higher, and therefore includes a Temperature Test at 1400°F and 1800°F.

#### **ULC-S604 - STANDARD FOR FACTORY-BUILT TYPE A CHIMNEYS**

This standard applies to Factory-Built Type 'A' Chimneys which do not require field fabrication. They are for use with gas and liquid fuel-fired residential appliances and building heating equipment, where the appliance or equipment flue-gas temperatures do not exceed 540°C. They are intended for use in accordance with the National Building Code of Canada, Installation Code for Oil Burning Equipment, CAN/CSA-B139, and for Gas Burning Equipment, CAN/CGA-B149.1 and CAN/CGA-B149.2.

Tests included in this standard are designed to test the structural and thermal properties of the chimney and includes tests such as the Thermal Shock Test, Temperature Test (at 540°C and 760°C), Soot Burnout, Draft Test, Support Test, Strength Test, Wind Load Test, and other tests related to the components used in the chimney construction.

#### **ULC/ORD-C959 - CHIMNEYS, INDUSTRIAL 540°C AND 760°C**

This standard applies to Factory-Built industrial chimneys intended for use with certain process equipment and large oil or gas burning building heating appliances normally producing flue gas temperatures of 540°C or 760°C, or less as applicable.

Tests included in this standard are designed to test the structural and thermal properties of the chimney and include more stringent tests compared to ULC-C604, including the Thermal Shock Test, Temperature Test (at 540°C and 760°C, and if applicable 925°C and 980°C), Support Test, Strength Test, Wind Load Test, and other tests related to the components used in the chimney construction.

#### **UL 1978 – STANDARDS FOR GREASE DUCTS**

This standard applies to factory-built grease ducts, and grease duct assemblies that are intended to be installed at reduced clearances where 18 inch clearance is specified in NFPA 96 and the International Mechanical Code. These requirements also cover modular grease duct assemblies, unwelded connections between adjoining duct parts, fittings, access doors, and the like intended for use with grease ducts installed in accordance with NFPA 96 and the International Mechanical Code.



**UL 2221 – STANDARDS FOR TESTS OF FIRE RESISTIVE GREASE DUCT ENCLOSURE ASSEMBLIES**

These tests are intended to determine the fire resistance of grease duct enclosure assemblies. These requirements limit the combustibility, the surface flammability, and the smoke generation potential of the coverings used to enclose the grease duct. In addition, these requirements evaluate the effectiveness of the combination of the grease duct and the enclosure as a fire rated enclosure system and through penetration firestop system, as well as the enclosure's effect on the grease duct.

**UL 1777 - STANDARD FOR CHIMNEY LINERS**

These standards cover metallic and nonmetallic chimney liners intended for field-installation into new or existing masonry chimneys that are used for the natural draft venting of Category I gas-fired, Type L vented oil-fired, and solid-fuel-fired residential-type appliances in which the maximum continuous flue-gas outlet temperatures do not exceed 1000°F (538°C).

**CAN/ULC S635 - STANDARD FOR LINING SYSTEMS FOR EXISTING MASONRY OR FACTORY-BUILT CHIMNEYS AND VENTS**

This Standard covers lining systems for existing masonry chimneys, which may or may not incorporate a liner of fire-clay tile, or factory-built chimneys and vents.

**CAN/ULC S662 - STANDARD FOR FACTORY-BUILT GREASE DUCT**

This Standard covers factory-built grease ducts and grease duct assemblies that are intended to be installed as alternatives to the grease ducts constructed of all welded 1.37 mm carbon steel or 1.09 mm stainless steel required by ULC-S650, Standard for the Installation and Performance of Ventilation and Fire Suppression Systems for Commercial and Institutional Cooking Equipment.

DuraVent single wall and double wall model venting systems are Listed by Underwriters Laboratories, Inc. (UL) in the following product categories and in the diameters indicated:

<b>Model DCL</b> (Single wall)	
UL 103 - Building Heating Appliance Chimney	5" - 36" ID
UL 1978 - Grease Duct CAN/ULC S662 - Grease Duct	5" - 36" ID
UL 1777 - Chimney Liner - Gas/Oil	5" - 36" ID
CAN/ULC S635 - Chimney Liner for Existing Masonry & Factory-Built Chimneys	5" - 36" ID
UL 2561 - 1400° Fahrenheit Chimney	5" - 36" ID

<b>Model DAS1</b> (Double wall, 1" air insulation)	
UL 103 - Building Heating Appliance Chimney	5" - 36" ID
UL 2561 - 1400° Fahrenheit Chimney	5" - 36" ID
UL 1978 - Grease Duct ULC S662 - Grease Duct	5" - 36" ID

<b>Model DIS1, DIS2, DIS4</b> (Double wall, fiber insulation)	
UL 103 - Building Heating Appliance Chimney	5" - 36" ID
UL 103 HT - Building Heating Appliance Chimney(Type HT)	5" - 24" ID
UL 2561 - 1400° Fahrenheit Chimney	5" - 36" ID
UL 1978 - Grease Duct ULC S662 - Grease Duct	5" - 36" ID

<b>Model DIS3Z</b> (Double wall, fiber insulation)	
UL 1978 - 1400° - Grease Duct	5" - 36" ID
UL 2221 - Fire Resistant Enclosure	5" - 36" ID
CAN/ULC S662 - Grease Duct	5" - 36" ID

**ADDITIONAL APPLICATIONS**

Models DCL, DAS1, DIS1, DIS2, and DIS4 are also suitable for negative, neutral or positive pressure pre-fabricated piping systems intended for use in a variety of applications including but not limited to the following: Fume Venting, Chutes, Particle Conveying, Dryer Vents and Ventilation Ducts.

**MIXING PARTS**

Model DCL, DAS1, DIS1, DIS2, DIS4 and DIS3Z may be intermixed within a system, assuming proper clearances are maintained for respective components. When penetrating a roof, appropriate roof penetration components must be used. Do not use Model DCL to penetrate through a wall, floor or roof.

DuraVent Models DCL, DAS1, DIS1, DIS2, and DIS4 chimneys may penetrate a combustible floor, wall, or roof using the appropriate parts and openings sizes.

**NOTE: Do not enclose with combustible materials**

In the case of a fire rated enclosure made of non-combustible or limited combustible construction, the minimum clearance with the Model DCL must be 6" or as required by local code.

# Zero Clearance Grease Duct

DuraVent's design is sure to be the industry's choice for new restaurant construction or custom remodelling.

## What Sets Us Apart

Integrated centering sleeve stabilizes and helps align the sections during installation. Sleeve also provides a stop for high temperature sealant to keep it in its intended location creating air and moisture tight joints. Extra-large spacing between outer wall sections allows more space for a quick and easy installation of the inner "V" band.

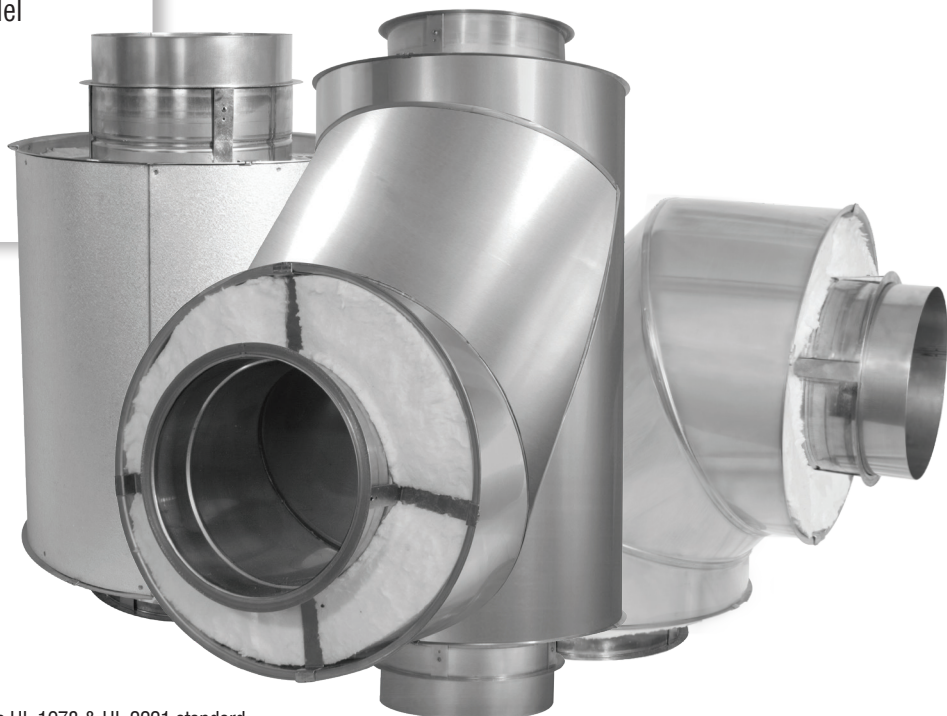
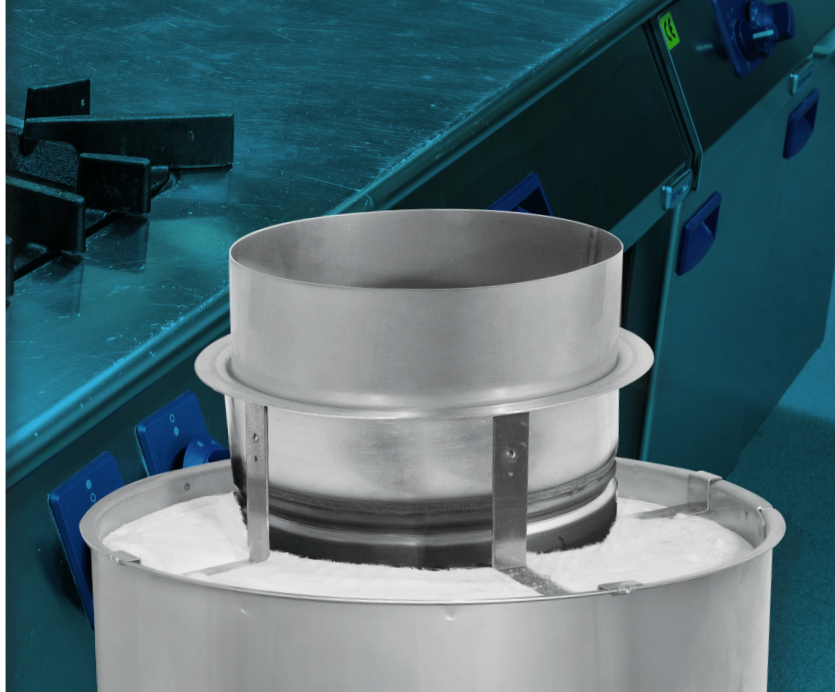
## Construction

Integrated, modular grease duct with insulation and outer wall (that qualifies as 2 Hour fire resistive enclosure) eliminates need for a separate, large and expensive fire rated chase or two layers of fire rated wrap – all while occupying a smaller "footprint" in expensive commercial properties.

Available in 5" to 36" Diameters.  
Single-Wall (DCL) or Double-Wall Zero Clearance (DIS3Z) with 3" fiber insulation.

## Listing

DuraVent Model grease ducts have been tested and listed by UL to UL/ULC Standards. UL 1978 (Models DIS3Z and DCL) Grease Duct and UL 2221 (Model DIS3Z only).



**Grease Duct** is subjected to rigorous and stringent requirements of the UL 1978 & UL 2221 standard, including continuous firing at 500° F (260° C), plus 30 minute firing at 2000° F (1093° C).

# 0" CLEARANCE GREASE DUCT FACTORY-BUILT GREASE DUCT



Features	Benefits
Modular stainless steel construction	<ul style="list-style-type: none"> <li>• Installs in sections with no field welding required.</li> <li>• Highly corrosion resistant.</li> <li>• Extremely durable.</li> </ul>
Round tubular design	<ul style="list-style-type: none"> <li>• Maintains structural integrity significantly longer than a rectangular welded steel product.</li> <li>• Superior flow achieved with round tubular design.</li> <li>• Easier to clean and reduces chance of fire from grease accumulation.</li> <li>• Eliminates corners where grease accumulation is most severe and difficult to remove.</li> </ul>
0" clearance to combustible materials	<ul style="list-style-type: none"> <li>• Reduces space requirements and provides ease of mind for clearances.</li> </ul>
Two hour fire rating for the Model DIS3Z	Eliminates need for a large, expensive, separate, fire-rated enclosure or multiple, field-applied layers of fire-rated wrap materials.
Extra large spacing between outer wall sections	<ul style="list-style-type: none"> <li>• Allows for quick and easy installation of the securing band.</li> </ul>
DCL single-wall available (18" clearance)	<ul style="list-style-type: none"> <li>• Possibility to switch from Zero Clearance (DIS3Z) to Single-Wall (DCL) or vice versa, within a grease duct run.</li> <li>• Fast and easy installation.</li> <li>• Less expensive.</li> <li>• Lighter weight.</li> </ul>

Factory-Built Grease Duct Systems	
<b>Application</b>	Restaurant Grease Ducts Cooking Appliances Ventilation Hoods Pizza Oven Exhaust
<b>Maximum Operating Temperatures</b>	500°F Continuous 2000°F Intermittent



### Assembly

Blanket insulation is already installed in the portion that lines up with the outside casing. We provide an insulation band to be field-installed behind the outside band.

Goes together with the inner flange and inner locking band (with centering extension) and an outer band.

For DuraVent factory-built grease ducts listed to UL 1978, install at a duct slope not less than 1/16 unit vertical slope in 12 units of horizontal toward the hood or toward the grease reservoir. Where DuraVent grease ducts listed to UL 1978 exceed 75 feet in length, the slope shall not be less than 3/16 unit vertical slope in 12 units horizontal. This minimum slope is a result of tests and/or analysis performed by Underwriters Laboratories, where factory-built grease duct was compared to rectangular field-applied grease duct for performance of flow characteristics. Consult with AHJ for acceptance of this alternate method.

Openings for Model DIS3Z		
Inside Diameter (A)	Roof / Floor (C)	Wall (C)
Ø5" to Ø36"	Inside Ø + 8"	Inside Ø + 8"

\*Dimensions are in inches

DIS3Z:  $B = A + 6"$   
 $C = A + 8"$

Opening required when installing the Model DIS3Z Grease Duct through a fire rated floor, wall or roof.

## **PRE-FABRICATED, FIRE-RESISTANCE RATED GREASE DUCT FOR REMOVAL OF GREASE AND SMOKE LADEN VAPORS**

### **PART 1- GENERAL**

#### **1.1 SUMMARY**

Listed, double-wall, prefabricated, modular, fire-resistance rated grease duct for use with commercial cooking equipment for removal of grease and smoke laden vapors from kitchen hoods (as described in NFPA 96), at a maximum temperature of 500°F under continuous operation.

#### **1.2 REFERENCE STANDARDS**

- A. The latest published edition of a reference shall be applicable to this Project unless identified by a specific edition date.
- B. All materials, installation and workmanship shall comply with the applicable requirements and standards addressed within the following references.
- C. Underwriters Laboratories, Inc. (UL):
  - a. Comply with applicable UL safety standards; provide products which have been UL listed and labeled.
    - 1) UL 1978 – “Standard for Grease Ducts”
    - 2) UL 2221 – “Standard for Tests of Fire Resistive Grease Duct Enclosure Assemblies”
- D. National Fire Protection Association (NFPA):
  - a. Comply with NFPA 96 – “Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations”
- E. International Code Congress (ICC)
  - a. Comply with “International Mechanical Code (IMC)” and “International Building Code (IBC)” (if applicable to the project / site)
- F. International Association of Plumbing and Mechanical Officials (IAPMO)
  - a. Comply with “Uniform Mechanical Code” (if applicable to the project / site)

#### **1.3 QUALITY ASSURANCE**

- A. Source Limitations: Obtain listed system components through one source from a single manufacturer.
- B. Must install duct in accordance with terms of NFPA96, local code and manufacturer’s installation instructions.

#### **1.4 WARRANTY**

- A. Listed grease duct shall have a limited lifetime warranty to begin at the date of installation.

### **PART 2- PRODUCTS**

#### **2.1 GENERAL**

- A. All materials shall meet or exceed all applicable referenced standards, federal, state and local requirements, and conform to codes and ordinances of Authorities Having Jurisdiction.

#### **2.2 AVAILABLE MANUFACTURERS**

- A. Listed and Classified (Fire Resistance Rated) Double-Wall insulated grease duct shall be model DIS3Z, as manufactured by DuraVent.

## 2.3 LISTED GREASE DUCT

- A. The grease duct shall be insulated, double-wall factory-built type for use with Type 1 kitchen hoods, as described in NFPA 96 for the transportation of air and grease-laden vapors from commercial cooking operations.
- B. Product Description:
  - a. Zero Clearance, Two (2) Hour Fire-Resistance rated model DIS3Z Grease Duct by DuraVent.
  - b. All section joints shall incorporate a self-centering feature to ensure proper alignment of mating flanges and proper spacing between the inner wall (flue) and the outer wall (casing).
  - c. The inner wall (flue) shall be laser or plasma welded.
  - d. System shall be rated for continuous operation at 500° F and intermittent operation at 2000° F.
  - e. All components of the grease duct system shall be provided by the manufacturer to ensure the system meets the requirements of the listing including duct supports, guides, fittings, cleanouts, and expansion joints required to install the duct.
  - f. System shall be designed to provide access for inspection and cleaning of each change of duct direction, permit drainage of grease residue through a duct section and enable the system to allow various types of fire suppression equipment to be installed into the grease ductwork.
  - g. Grease duct shall be certified to:
    - i. UL 1978 – “Grease Ducts for Restaurant Cooking Appliances”, and
    - ii. UL 2221 – “Standard for Tests of Fire Resistive Grease Duct Enclosure Assemblies”
  - h. The duct sections shall be constructed of an inner wall and an outer wall with fiber blanket insulation between the walls.
    - i. The inner wall shall be constructed of Types 304 or 316 stainless steel.
      - 1. 5 through 36 inch diameter materials: 0.035 inch thick inner wall.
    - ii. The outer wall shall be constructed of Galvalume steel, Aluminized steel or Types 430, 304, or 316 stainless steel.
      - 1. 5 thru 36 diameter inch materials: 0.025 inch thick outer wall.
    - iii. The duct shall include a minimum 3" thickness of 10 pcf density of body-soluble, high temperature capable, non-refractory fiber insulation between the inner and outer walls.

## **PART 3-EXECUTION**

### **3.1 INSTALLATION OF FACTORY-BUILT GREASE DUCT**

- A. Locate to comply with minimum clearances from combustibles and minimum termination heights according to product listing or NFPA 96, whichever is most stringent.
- B. The installation shall be in accordance with the manufacturer's installation instructions and shall conform to all applicable state and local codes.
- C. Inner pipe joints shall be held together by means of formed 'V' bands and sealed with S650 Sealant.
- D. Connection to the hood shall be made with a round hood collar or a square-to-round transition.
- E. Curb mounted fans shall incorporate a fan adaptor plate.
- F. All construction and supporting of the kitchen ventilation system will be in accordance with DuraVent installation instructions.
- G. Store grease duct sections inside or covered adequately to protect from weather or accidental damage.
- H. The entire grease duct system from the appliance to the termination, including all accessories, except as noted, shall be from one manufacturer.

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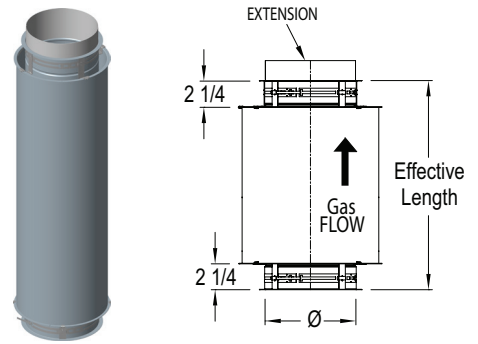
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### Length (L12, L18, L24, L36)

Used as standard duct lengths. Available in sizes from 5" to 36".

**Included:**

- For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).
- For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).
- For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).
- For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



Ø (in)	Length	Effective Length (in)	DCL (Single Wall)		DAS1 (1" air) / DIS1 (1" Wool Insulated)		DIS2 (2" Wool Insulated)		DIS4 (4" Wool Insulated)		DIS3Z (3" Wool Insulated)		
			ØB (O.D.)	Product Code	ØB (O.D.)	Product Code	ØB (O.D.)	Product Code	ØB (O.D.)	Product Code	ØB (O.D.)	Product Code	
5 to 36	12	11 5/8	Ø	DCLØL12	Ø + 2	DAS1-ØL12	DIS1-ØL12	Ø + 4	DIS2-ØL12	Ø + 8	DIS4-ØL12	Ø + 6	DIS3Z-ØL12
5 to 36	18	17 5/8		DCLØL18		DAS1-ØL18	DIS1-ØL18		DIS2-ØL18		DIS4-ØL18		DIS3Z-ØL18
5 to 36	24	24 1/8		DCLØL24		DAS1-ØL24	DIS1-ØL24		DIS2-ØL24		DIS4-ØL24		DIS3Z-ØL24
5 to 36	36	36 1/8		DCLØL36		DAS1-ØL36	DIS1-ØL36		DIS2-ØL36		DIS4-ØL36		DIS3Z-ØL36

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:**

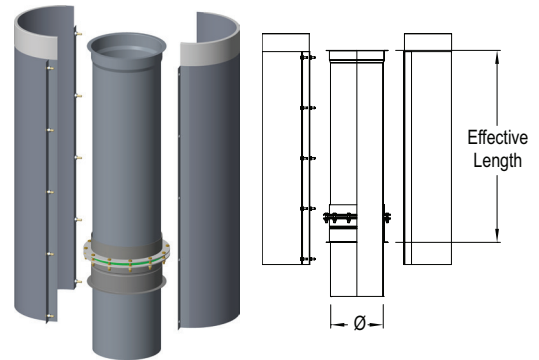
- Ø5" to Ø16": K = 0.4 (eff. length [ft] / Ø [in])
- Ø18" to Ø36": K = 0.3 (eff. length [ft] / Ø [in])
- For Engine and Turbine Exhausts: K = 0.25 (eff. length [ft] / Ø [in])

### Adjustable Lengths (LA)

Used to adjust to fit odd dimensions and compensate for thermal expansion. Suitable for application on low positive pressure system with less than 1" water column.

**Included:**

- For DCL:** One (1) Locking Inner "V" Band (BSI), one (1) Graphite packing kit on a inner liner, a special tool for proper installation of Graphite packing, and hardware.
- For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Graphite packing kit on a inner liner, a special tool for proper installation of Graphite packing, two half casing, and hardware.
- For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Graphite packing kit on an inner liner, a special tool for proper installation of Graphite packing, two half casing, insulation pad, and hardware.
- For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Graphite packing kit on a inner liner, a special tool for proper installation of Graphite packing, two half casing, insulation pad and hardware.



Ø (in.)	Effective Length (in.)	Product Code					
		DCL (Single Wall)	DAS1 (1" air)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)	DIS3Z (3" Insulated)
5 to 36	7 1/4 to 28 3/8	DCLØLA	DAS1-ØLA	DIS1-ØLA	DIS2-ØLA	DIS4-ØLA	DIS3Z-ØLA

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:**

- Ø5" to Ø16": K = 0.4 (eff. length [ft] / Ø [in])
- Ø18" to Ø36": K = 0.3 (eff. length [ft] / Ø [in])
- For Engine and Turbine Exhausts: K = 0.25 (eff. length [ft] / Ø [in])

### Variable Lengths (LV)

Used to adjust to fit odd dimensions. Not used for thermal expansion. Can be used in positive pressure applications.

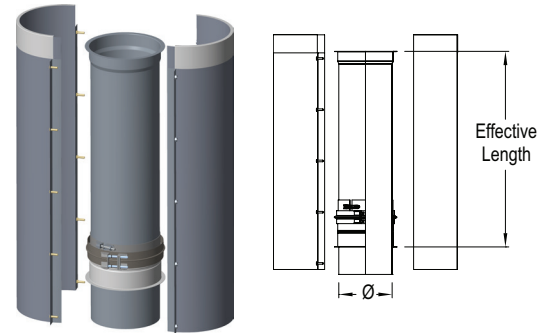
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), one (1) collar kit on the inner liner with a special locking band (BS) and hardware.

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) collar kit on the inner liner with a special locking band (BS), two half casing, and hardware.

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) collar kit on the inner liner with a special locking band (BS), two half casing, insulation pad, and hardware.

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) collar kit on the inner liner, two half casing, insulation pad and hardware.



Ø (in.)	Effective Length (in.)	Product Code					
		DCL (Single Wall)	DAS1 (1" air)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)	DIS3Z (3" Insulated)
5 to 36	7 to 28 1/2	DCLØLV	DAS1-ØLV	DIS1-ØLV	DIS2-ØLV	DIS4-ØLV	DIS3Z-ØLV

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:**

Ø5" to Ø16": K = 0.4 (eff. length [ft] / Ø [in])

Ø18" to Ø36": K = 0.3 (eff. length [ft] / Ø [in])

For Engine and Turbine Exhausts: K = 0.25 (eff. length [ft] / Ø [in])

### Bellow Lengths (LB)

Recommended for Diesel Engines / Turbine Exhausts. May be used in place of the Adjustable Lengths (LA) as an expansion joint to compensate for linear thermal expansion in chimney systems. Maximum compressive travel is 3".

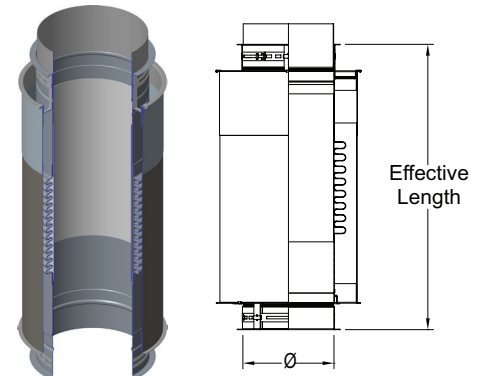
**NOTE: NOT AVAILABLE FOR MODEL DIS3Z**

**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, one (1) Outer Band (BSE), a special tool for proper installation of Graphite packing, two half casing, insulation pad, and hardware.



Ø (in.)	Effective Length (in.)	Product Code				
		DCL (Single Wall)	DAS1 (1" air)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)
5 to 36	17 9/16	DCLØLB	DAS1-ØLB	DIS1-ØLB	DIS2-ØLB	DIS4-ØLB

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:**

Ø5" to Ø16": K = 0.4 (eff. length [ft] / Ø [in])

Ø18" to Ø36": K = 0.3 (eff. length [ft] / Ø [in])

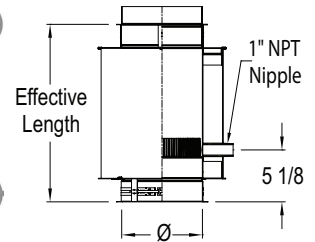
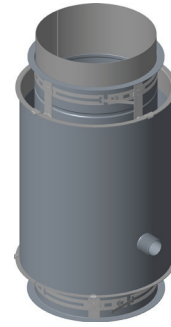
For Engine and Turbine Exhausts: K = 0.25 (eff. length [ft] / Ø [in])

### Drain Lengths (DL)

Used to drain condensation from inner wall on vertical runs. 1" NPT nipple.

**Included:**

- For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).
- For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).
- For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).
- For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



Ø (in.)	Effective Length (in.)	Product Code					
		DCL (Single Wall)	DAS1 (1" air)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)	DIS3Z (3" Insulated)
5 to 36	17 9/16	DCLØDL	DAS1-ØDL	DIS1-ØDL	DIS2-ØDL	DIS4-ØDL	DIS3Z-ØDL

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:**

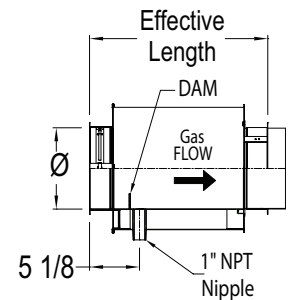
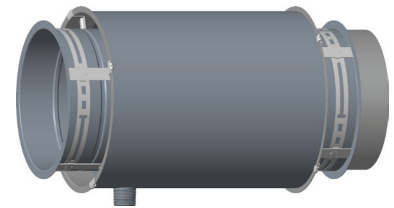
- Ø5" to Ø16": K = 0.4 (eff. length [ft] / Ø [in])
- Ø18" to Ø36": K = 0.3 (eff. length [ft] / Ø [in])
- For Engine and Turbine Exhausts: K = 0.25 (eff. length [ft] / Ø [in])

### Horizontal Drain Lengths (HDL)

Used as a horizontal drain section on horizontal runs. 1" NPT nipple.

**Included:**

- For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).
- For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).
- For DIS1, DIS2 and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).
- For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



Ø (in.)	Effective Length (in.)	Product Code					
		DCL (Single Wall)	DAS1 (1" air)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)	DIS3Z (3" Insulated)
5 to 36	25 1/16	DCLØHDL	DAS1-ØHDL	DIS1-ØHDL	DIS2-ØHDL	DIS4-ØHDL	

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:**

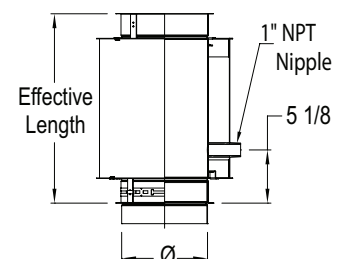
- Ø5" to Ø16": K = 0.4 (eff. length [ft] / Ø [in])
- Ø18" to Ø36": K = 0.3 (eff. length [ft] / Ø [in])
- For Engine and Turbine Exhausts: K = 0.25 (eff. length [ft] / Ø [in])

### Nozzle Lengths (NL)

Used as a test port. 1" NPT nipple, no cap.

**Included:**

- For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).
- For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).
- For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) 6" insulation.
- For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



Ø (in.)	Effective Length (in.)	Product Code					
		DCL (Single Wall)	DAS1 (1" air)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)	DIS3Z (3" Insulated)
5 to 36	17 9/16	DCLØNL	DAS1-ØNL	DIS1-ØNL	DIS2-ØNL	DIS4-ØNL	DIS3Z-ØNL

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:**

- Ø5" to Ø16": K = 0.4 (eff. length [ft] / Ø [in])
- Ø18" to Ø36": K = 0.3 (eff. length [ft] / Ø [in])
- For Engine and Turbine Exhausts: K = 0.25 (eff. length [ft] / Ø [in])

### 3° Elbows (E3)

Used to change direction of the duct or to provide offset. 3° Elbows provide also a slope for horizontal run. Comes alone (E3) or in pairs as a kit (EK3). The Elbow Kit (two elbows) can establish many different degrees combined with other elbows. The kit may also establish many different offset when combined with standard different lengths.

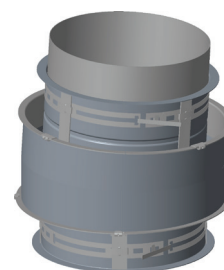
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

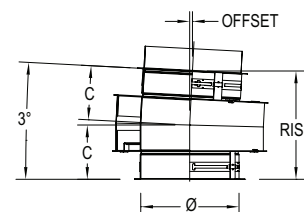
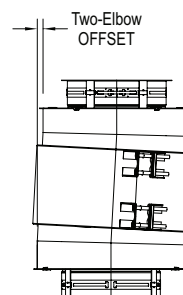
**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One Locking "V" Band (BSI), one Centering Flue Extension (PR-C0794) and one Locking Outer Band (BSE) included.



3° Elbows - DCL (Single Wall)							
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code		
					One Elbow DCL	Two Elbows DCL	
5 to 7	3 7/16	3/16	6 7/8	3/8	DCLØE3	DCLØEK3	
8 to 11	3 1/2	3/16	7	3/8	DCLØE3	DCLØEK3	
12 to 16	3 9/16	3/16	7 1/8	3/8	DCLØE3	DCLØEK3	
18 to 20	3 5/8	3/16	7 1/4	3/8	DCLØE3	DCLØEK3	
22 to 26	3 11/16	3/16	7 3/8	3/8	DCLØE3	DCLØEK3	
28 to 30	3 3/4	3/16	7 1/2	3/8	DCLØE3	DCLØEK3	
32 to 34	3 13/16	3/16	7 5/8	3/8	DCLØE3	DCLØEK3	
36	3 7/8	3/16	7 3/4	3/8	DCLØE3	DCLØEK3	



3° Elbows - DAS1 (1" Air Insulated) / DIS1 (1" Wool Insulated)								
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code			
					One Elbow DAS1	Two Elbows DAS1	One Elbow DIS1	Two Elbows DIS1
5	4 3/8	1/4	8 3/4	1/2	DAS1-ØE3	DAS1-ØEK3	DIS1-ØE3	DIS1-ØEK3
6 to 9	4 7/16	1/4	8 7/8	1/2	DAS1-ØE3	DAS1-ØEK3	DIS1-ØE3	DIS1-ØEK3
10 to 14	4 1/2	1/4	9	1/2	DAS1-ØE3	DAS1-ØEK3	DIS1-ØE3	DIS1-ØEK3
16 to 18	4 9/16	1/4	9 1/8	1/2	DAS1-ØE3	DAS1-ØEK3	DIS1-ØE3	DIS1-ØEK3
20 to 24	4 5/8	1/4	9 1/4	1/2	DAS1-ØE3	DAS1-ØEK3	DIS1-ØE3	DIS1-ØEK3
26 to 28	4 11/16	1/4	9 3/8	1/2	DAS1-ØE3	DAS1-ØEK3	DIS1-ØE3	DIS1-ØEK3
30 to 32	4 3/4	1/4	9 1/2	1/2	DAS1-ØE3	DAS1-ØEK3	DIS1-ØE3	DIS1-ØEK3
34 to 36	4 13/16	1/4	9 5/8	1/2	DAS1-ØE3	DAS1-ØEK3	DIS1-ØE3	DIS1-ØEK3

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:** K = 0.03

### 3° Elbows (E3) continued

Used to change direction of the duct or to provide offset. 3° Elbows provide also a slope for horizontal run. Comes alone (E3) or in pairs as a kit (EK3). The Elbow Kit (two elbows) can establish many different degrees combined with other elbows. The kit may also establish many different offset when combined with standard different lengths.

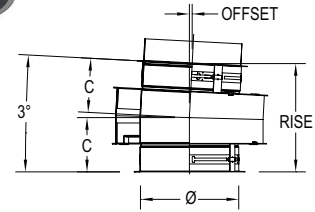
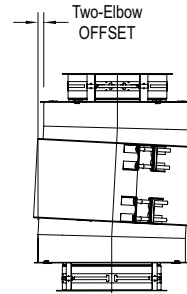
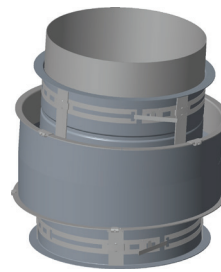
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One Locking "V" Band (BSI), one Centering Flue Extension (PR-C0794) and one Locking Outer Band (BSE) included.



3° Elbows - DIS2 (2" Wool Insulated)						
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code	
					One Elbow DIS2	Two Elbows DIS2
5 to 7	4 7/16	1/4	8 7/8	1/2	DIS2-ØE3	DIS2-ØEK3
8 to 12	4 1/2	1/4	9	1/2	DIS2-ØE3	DIS2-ØEK3
13 to 16	4 9/16	1/4	9 1/8	1/2	DIS2-ØE3	DIS2-ØEK3
18 to 22	4 5/8	1/4	9 1/4	1/2	DIS2-ØE3	DIS2-ØEK3
24 to 26	4 11/16	1/4	9 3/8	1/2	DIS2-ØE3	DIS2-ØEK3
28 to 30	4 3/4	1/4	9 1/2	1/2	DIS2-ØE3	DIS2-ØEK3
32 to 36	4 13/16	1/4	9 5/8	1/2	DIS2-ØE3	DIS2-ØEK3

3° Elbows - DIS3Z (3" Wool Insulated)						
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code	
					One Elbow DIS3Z	Two Elbows DIS3Z
5	4 13/32	7/32	8 13/16	7/16	DIS3Z-ØE3	DIS3Z-ØEK3
6 to 7	4 7/16	7/32	8 7/8	7/16	DIS3Z-ØE3	DIS3Z-ØEK3
8	4 15/32	7/32	8 15/16	7/16	DIS3Z-ØE3	DIS3Z-ØEK3
9 to 10	4 1/2	7/32	8 31/32	7/16	DIS3Z-ØE3	DIS3Z-ØEK3
11 to 12	4 1/2	1/4	9	1/2	DIS3Z-ØE3	DIS3Z-ØEK3
13 to 14	4 17/32	1/4	9 1/16	1/2	DIS3Z-ØE3	DIS3Z-ØEK3
16	4 9/16	1/4	9 1/8	1/2	DIS3Z-ØE3	DIS3Z-ØEK3
18	4 19/32	1/4	9 3/16	1/2	DIS3Z-ØE3	DIS3Z-ØEK3
20	4 5/8	1/4	9 7/32	1/2	DIS3Z-ØE3	DIS3Z-ØEK3
22 to 24	4 21/32	1/4	9 9/32	1/2	DIS3Z-ØE3	DIS3Z-ØEK3
26	4 11/16	1/4	9 3/8	1/2	DIS3Z-ØE3	DIS3Z-ØEK3
28	4 23/32	1/4	9 15/32	1/2	DIS3Z-ØE3	DIS3Z-ØEK3
30	4 3/4	1/4	9 1/2	1/2	DIS3Z-ØE3	DIS3Z-ØEK3
32	4 25/32	1/4	9 17/32	1/2	DIS3Z-ØE3	DIS3Z-ØEK3
34	4 13/16	1/4	9 19/32	1/2	DIS3Z-ØE3	DIS3Z-ØEK3
36	4 27/32	1/4	9 21/32	1/2	DIS3Z-ØE3	DIS3Z-ØEK3

3° Elbows - DIS4 (4" Wool Insulated)						
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code	
					One Elbow DIS4	Two Elbows DIS4
5 to 8	4 1/2	1/4	9	1/2	DIS4-ØE3	DIS4-ØEK3
9 to 13	4 9/16	1/4	9 1/8	1/2	DIS4-ØE3	DIS4-ØEK3
14 to 18	4 5/8	1/4	9 1/4	1/2	DIS4-ØE3	DIS4-ØEK3
20 to 22	4 11/16	1/4	9 3/8	1/2	DIS4-ØE3	DIS4-ØEK3
24 to 26	4 3/4	1/4	9 1/2	1/2	DIS4-ØE3	DIS4-ØEK3
28 to 32	4 13/16	1/4	9 5/8	1/2	DIS4-ØE3	DIS4-ØEK3
34 to 36	4 7/8	1/4	9 3/4	1/2	DIS4-ØE3	DIS4-ØEK3

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:** K = 0.03

### 15° Elbows (E15)

Used to change direction of the duct or to provide offset. Two elbows can establish many different degrees combined with other elbows and may also establish many different offset when combined with standard different lengths.

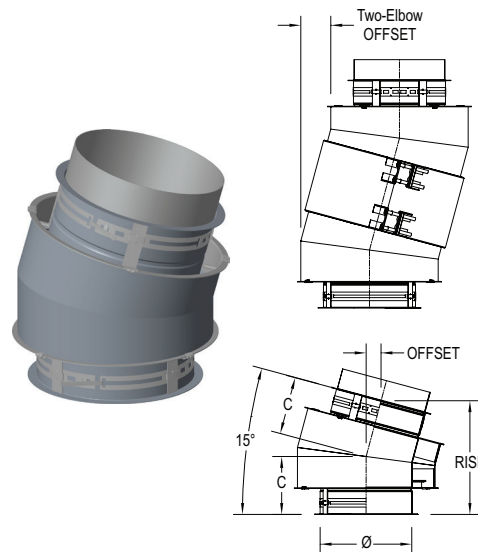
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2 and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



15° Elbows - DCL (Single Wall)					
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code
					One Elbow DCL
5	3 11/16	1	7 1/4	2	DCL5E15
6	3 3/4	1	7 3/8	2	DCL6E15
7	3 13/16	1	7 1/2	2	DCL7E15
8	3 7/8	1	7 5/8	2	DCL8E15
9	4	1	7 7/8	2	DCL9E15
10	4 1/16	1	8	2	DCL10E15
11	4 1/8	1 1/8	8 1/8	2 1/4	DCL11E15
12	4 3/16	1 1/8	8 1/4	2 1/4	DCL12E15
13	4 1/4	1 1/8	8 3/8	2 1/4	DCL13E15
14	4 5/16	1 1/8	8 1/2	2 1/4	DCL14E15
16	4 7/16	1 1/8	8 3/4	2 1/4	DCL16E15
18	4 9/16	1 1/8	9	2 1/4	DCL18E15
20	4 11/16	1 1/4	9 1/4	2 1/2	DCL20E15
22	4 13/16	1 1/4	9 1/2	2 1/2	DCL22E15
24	4 15/16	1 1/4	9 3/4	2 1/2	DCL24E15
26	5 1/16	1 1/4	10	2 1/2	DCL26E15
28	5 1/4	1 3/8	10 3/8	2 3/4	DCL28E15
30	5 3/8	1 3/8	10 5/8	2 3/4	DCL30E15
32	5 1/2	1 3/8	10 7/8	2 3/4	DCL32E15
34	5 5/8	1 1/2	11	3	DCL34E15
36	5 3/4	1 1/2	11 1/4	3	DCL36E15

15° Elbows - DAS1 (1" Air Insulated) / DIS1 (1" Wool Insulated)						
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code	
					One Elbow DAS1	One Elbow DIS1
5	4 3/4	1 1/4	9 3/8	2 1/2	DAS1-5E15	DIS1-5E15
6	4 13/16	1 1/4	9 1/2	2 1/2	DAS1-6E15	DIS1-6E15
7	4 15/16	1 1/4	9 3/4	2 1/2	DAS1-7E15	DIS1-7E15
8	5	1 1/4	9 7/8	2 1/2	DAS1-8E15	DIS1-8E15
9	5 1/16	1 1/4	10	2 1/2	DAS1-9E15	DIS1-9E15
10	5 1/8	1 3/8	10 1/8	2 3/4	DAS1-10E15	DIS1-10E15
11	5 3/16	1 3/8	10 1/4	2 3/4	DAS1-11E15	DIS1-11E15
12	5 1/4	1 3/8	10 3/8	2 3/4	DAS1-12E15	DIS1-12E15
13	5 5/16	1 3/8	10 1/2	2 3/4	DAS1-13E15	DIS1-13E15
14	5 3/8	1 3/8	10 5/8	2 3/4	DAS1-14E15	DIS1-14E15
16	5 1/2	1 3/8	10 7/8	2 3/4	DAS1-16E15	DIS1-16E15
18	5 5/8	1 1/2	11	3	DAS1-18E15	DIS1-18E15
20	5 3/4	1 1/2	11 1/4	3	DAS1-20E15	DIS1-20E15
22	5 7/8	1 1/2	11 1/2	3	DAS1-22E15	DIS1-22E15
24	6	1 1/2	11 3/4	3	DAS1-24E15	DIS1-24E15
26	6 3/16	1 5/8	12 1/8	3 1/4	DAS1-26E15	DIS1-26E15
28	6 5/16	1 5/8	12 3/8	3 1/4	DAS1-28E15	DIS1-28E15
30	6 7/16	1 5/8	12 5/8	3 1/4	DAS1-30E15	DIS1-30E15
32	6 9/16	1 3/4	12 7/8	3 1/2	DAS1-32E15	DIS1-32E15
34	6 11/16	1 3/4	13 1/8	3 1/2	DAS1-34E15	DIS1-34E15
36	6 13/16	1 3/4	13 3/8	3 1/2	DAS1-36E15	DIS1-36E15

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:** K = 0.06

### 15° Elbows (E15) continued

Used to change direction of the duct or to provide offset. Two elbows can establish many different degrees combined with other elbows and may also establish many different offset when combined with standard different lengths.

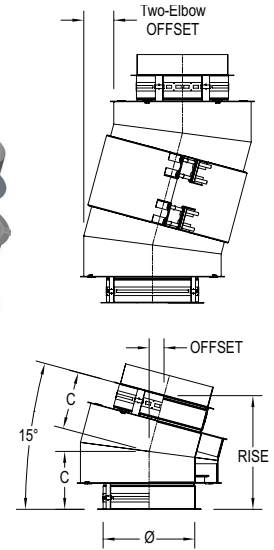
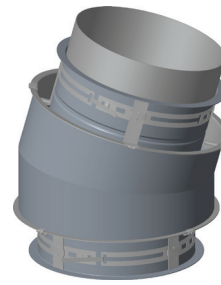
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2 and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



15° Elbows - DIS2 (2" Wool Insulated)					
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code
					One Elbow DIS2
5	4 15/16	1 1/4	9 3/4	2 1/2	DIS2-5E15
6	5	1 1/4	9 7/8	2 1/2	DIS2-6E15
7	5 1/16	1 1/4	10	2 1/2	DIS2-7E15
8	5 1/8	1 3/8	10 1/8	2 3/4	DIS2-8E15
9	5 3/16	1 3/8	10 1/4	2 3/4	DIS2-9E15
10	5 1/4	1 3/8	10 3/8	2 3/4	DIS2-10E15
11	5 5/16	1 3/8	10 1/2	2 3/4	DIS2-11E15
12	5 3/8	1 3/8	10 5/8	2 3/4	DIS2-12E15
13	5 7/16	1 3/8	10 3/4	2 3/4	DIS2-13E15
14	5 1/2	1 3/8	10 7/8	2 3/4	DIS2-14E15
16	5 5/8	1 1/2	11	3	DIS2-16E15
18	5 3/4	1 1/2	11 1/4	3	DIS2-18E15
20	5 7/8	1 1/2	11 1/2	3	DIS2-20E15
22	6	1 1/2	11 3/4	3	DIS2-22E15
24	6 3/16	1 5/8	12 1/8	3 1/4	DIS2-24E15
26	6 5/16	1 5/8	12 3/8	3 1/4	DIS2-26E15
28	6 7/16	1 5/8	12 5/8	3 1/4	DIS2-28E15
30	6 9/16	1 3/4	12 7/8	3 1/2	DIS2-30E15
32	6 11/16	1 3/4	13 1/8	3 1/2	DIS2-32E15
34	6 13/16	1 3/4	13 3/8	3 1/2	DIS2-34E15
36	6 15/16	1 3/4	13 5/8	3 1/2	DIS2-36E15

15° Elbows - DIS4 (4" Wool Insulated)					
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code
					One Elbow DIS4
5	5 3/16	1 3/8	10 1/4	2 3/4	DIS4-5E15
6	5 1/4	1 3/8	10 3/8	2 3/4	DIS4-6E15
7	5 5/16	1 3/8	10 1/2	2 3/4	DIS4-7E15
8	5 3/8	1 3/8	10 5/8	2 3/4	DIS4-8E15
9	5 7/16	1 3/8	10 3/4	2 3/4	DIS4-9E15
10	5 1/2	1 3/8	10 7/8	2 3/4	DIS4-10E15
11	5 9/16	1 1/2	10 7/8	3	DIS4-11E15
12	5 5/8	1 1/2	11	3	DIS4-12E15
13	5 11/16	1 1/2	11 1/8	3	DIS4-13E15
14	5 3/4	1 1/2	11 1/4	3	DIS4-14E15
16	5 7/8	1 1/2	11 1/2	3	DIS4-16E15
18	6	1 1/2	11 3/4	3	DIS4-18E15
20	6 3/16	1 5/8	12 1/8	3 1/4	DIS4-20E15
22	6 5/16	1 5/8	12 3/8	3 1/4	DIS4-22E15
24	6 7/16	1 5/8	12 5/8	3 1/4	DIS4-24E15
26	6 9/16	1 3/4	12 7/8	3 1/2	DIS4-26E15
28	6 11/16	1 3/4	13 1/8	3 1/2	DIS4-28E15
30	6 13/16	1 3/4	13 3/8	3 1/2	DIS4-30E15
32	6 15/16	1 3/4	13 5/8	3 1/2	DIS4-32E15
34	7 1/16	1 7/8	13 7/8	3 3/4	DIS4-34E15
36	7 3/16	1 7/8	14 1/8	3 3/4	DIS4-36E15

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304  
**Flow resistance:** K = 0.06



### 15° Elbows (E15) continued

Used to change direction of the duct or to provide offset. Two elbows can establish many different degrees combined with other elbows and may also establish many different offset when combined with standard different lengths.

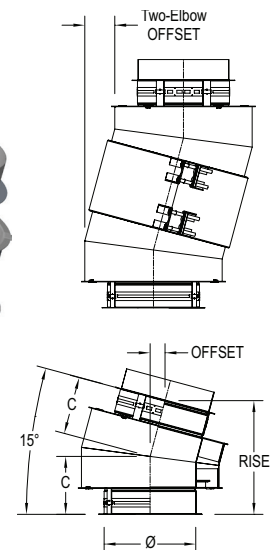
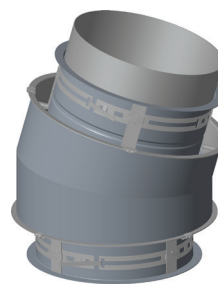
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2 and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



15° Elbows - DIS3Z (3" Wool Insulated)					
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code
					One Elbow DIS3Z
5	5	1 9/32	9 13/16	2 9/16	DIS3Z-5E15
6	5 3/32	1 5/16	9 31/32	2 5/8	DIS3Z-6E15
7	5 1/8	1 11/32	10 3/32	2 11/16	DIS3Z-7E15
8	5 3/16	1 11/32	10 7/32	2 11/16	DIS3Z-8E15
9	5 9/32	1 3/8	10 11/32	2 3/4	DIS3Z-9E15
10	5 11/32	1 3/8	10 1/2	2 3/4	DIS3Z-10E15
11	5 13/32	1 13/32	10 5/8	2 13/16	DIS3Z-11E15
12	5 15/32	1 13/32	10 3/4	2 13/16	DIS3Z-12E15
13	5 17/32	1 7/16	10 7/8	2 7/8	DIS3Z-13E15
14	5 19/32	1 7/16	11	2 7/8	DIS3Z-14E15
16	5 23/32	1 1/4	11 1/4	2 1/2	DIS3Z-16E15
18	5 7/8	1 17/32	11 17/32	3 1/16	DIS3Z-18E15
20	6	1 9/16	11 25/32	3 1/8	DIS3Z-20E15
22	6 1/8	1 19/32	12 1/32	3 3/16	DIS3Z-22E15
24	6 1/4	1 5/8	12 5/16	3 1/4	DIS3Z-24E15
26	6 3/8	1 21/32	12 9/16	3 5/16	DIS3Z-26E15
28	6 1/2	1 11/16	12 13/16	3 3/8	DIS3Z-28E15
30	6 21/32	1 23/32	13 3/32	3 7/16	DIS3Z-30E15
32	6 25/32	1 3/4	13 11/32	3 1/2	DIS3Z-32E15
34	6 29/32	1 25/32	13 19/32	3 9/16	DIS3Z-34E15
36	7 1/16	1 27/32	13 27/32	3 11/16	DIS3Z-36E15

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304  
**Flow resistance:** K = 0.06

### 30° Elbows (E30)

Used to change direction of the duct or to provide offset. Two elbows can establish many different degrees combined with other elbows and may also establish many different offset when combined with standard different lengths.

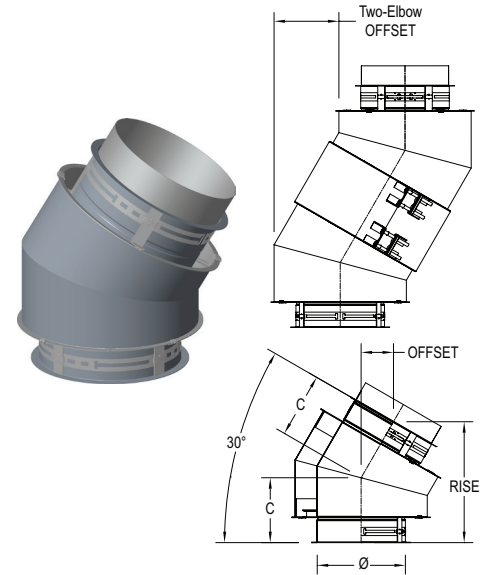
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



30° Elbows - DCL (Single Wall)					
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code
					One Elbow DCL
5	4 1/16	2	7 9/16	4	DCL5E30
6	4 3/16	2 1/8	7 7/8	4 1/4	DCL6E30
7	4 5/16	2 1/8	8	4 1/4	DCL7E30
8	4 7/16	2 1/4	8 1/4	4 1/2	DCL8E30
9	4 9/16	2 1/4	8 1/2	4 1/2	DCL9E30
10	4 3/4	2 3/8	8 7/8	4 3/4	DCL10E30
11	4 7/8	2 1/2	9 1/8	5	DCL11E30
12	5	2 1/2	9 3/8	5	DCL12E30
13	5 1/8	2 5/8	9 5/8	5 1/4	DCL13E30
14	5 1/4	2 5/8	9 3/4	5 1/4	DCL14E30
16	5 1/2	2 3/4	10 1/4	5 1/2	DCL16E30
18	5 13/16	2 7/8	10 7/8	5 3/4	DCL18E30
20	6 1/16	3	11 3/8	6	DCL20E30
22	6 5/16	3 1/8	11 3/4	6 1/4	DCL22E30
24	6 5/8	3 3/8	12 3/8	6 3/4	DCL24E30
26	6 7/8	3 1/2	12 7/8	7	DCL26E30
28	7 1/8	3 5/8	13 1/4	7 1/4	DCL28E30
30	7 3/8	3 3/4	13 3/4	7 1/2	DCL30E30
32	7 11/16	3 7/8	14 3/8	7 3/4	DCL32E30
34	7 15/16	4	14 3/4	8	DCL34E30
36	8 3/16	4 1/8	15 1/4	8 1/4	DCL36E30

30° Elbows - DAS1 (1" Air Insulated) / DIS1 (1" Wool Insulated)						
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code	
					One Elbow DAS1	One Elbow DIS1
5	5 1/4	2 5/8	9 3/4	5 1/4	DAS1-5E30	DIS1-5E30
6	5 3/8	2 3/4	10	5 1/2	DAS1-6E30	DIS1-6E30
7	5 1/2	2 3/4	10 1/4	5 1/2	DAS1-7E30	DIS1-7E30
8	5 11/16	2 7/8	10 5/8	5 3/4	DAS1-8E30	DIS1-8E30
9	5 13/16	2 7/8	10 7/8	5 3/4	DAS1-9E30	DIS1-9E30
10	5 15/16	3	11 1/8	6	DAS1-10E30	DIS1-10E30
11	6 1/16	3	11 3/8	6	DAS1-11E30	DIS1-11E30
12	6 3/16	3 1/8	11 1/2	6 1/4	DAS1-12E30	DIS1-12E30
13	6 5/16	3 1/8	11 3/4	6 1/4	DAS1-13E30	DIS1-13E30
14	6 7/16	3 1/4	12	6 1/2	DAS1-14E30	DIS1-14E30
16	6 3/4	3 3/8	12 5/8	6 3/4	DAS1-16E30	DIS1-16E30
18	7	3 1/2	13	7	DAS1-18E30	DIS1-18E30
20	7 1/4	3 5/8	13 1/2	7 1/4	DAS1-20E30	DIS1-20E30
22	7 9/16	3 3/4	14 1/8	7 1/2	DAS1-22E30	DIS1-22E30
24	7 13/16	3 7/8	14 5/8	7 3/4	DAS1-24E30	DIS1-24E30
26	8 1/16	4	15	8	DAS1-26E30	DIS1-26E30
28	8 5/16	4 1/8	15 1/2	8 1/4	DAS1-28E30	DIS1-28E30
30	8 5/8	4 1/4	16 1/8	8 1/2	DAS1-30E30	DIS1-30E30
32	8 7/8	4 3/8	16 1/2	8 3/4	DAS1-32E30	DIS1-32E30
34	9 1/8	4 1/2	17	9	DAS1-34E30	DIS1-34E30
36	9 7/16	4 3/4	17 5/8	9 1/2	DAS1-36E30	DIS1-36E30

Material options (Inner-Outer): 304-Galvalume, 304-304, 316-Galvalume, 316-304

Flow resistance: K = 0.12

### 30° Elbows (E30) continued

Used to change direction of the duct or to provide offset. Two elbows can establish many different degrees combined with other elbows and may also establish many different offset when combined with standard different lengths.

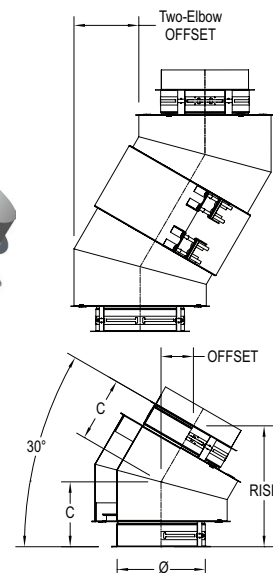
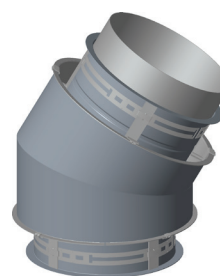
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



30° Elbows - DIS2 (2" Wool Insulated)					
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code
					One Elbow DIS2
5	5 1/2	2 3/4	10 1/4	5 1/2	DIS2-5E30
6	5 11/16	2 7/8	10 5/8	5 3/4	DIS2-6E30
7	5 13/16	2 7/8	10 7/8	5 3/4	DIS2-7E30
8	5 15/16	3	11 1/8	6	DIS2-8E30
9	6 1/16	3	11 3/8	6	DIS2-9E30
10	6 3/16	3 1/8	11 1/2	6 1/4	DIS2-10E30
11	6 5/16	3 1/8	11 3/4	6 1/4	DIS2-11E30
12	6 7/16	3 1/4	12	6 1/2	DIS2-12E30
13	6 5/8	3 3/8	12 3/8	6 3/4	DIS2-13E30
14	6 3/4	3 3/8	12 5/8	6 3/4	DIS2-14E30
16	7	3 1/2	13	7	DIS2-16E30
18	7 1/4	3 5/8	13 1/2	7 1/4	DIS2-18E30
20	7 9/16	3 3/4	14 1/8	7 1/2	DIS2-20E30
22	7 13/16	3 7/8	14 5/8	7 3/4	DIS2-22E30
24	8 1/16	4	15	8	DIS2-24E30
26	8 5/16	4 1/8	15 1/2	8 1/4	DIS2-26E30
28	8 5/8	4 1/4	16 1/8	8 1/2	DIS2-28E30
30	8 7/8	4 3/8	16 1/2	8 3/4	DIS2-30E30
32	9 1/8	4 1/2	17	9	DIS2-32E30
34	9 7/16	4 3/4	17 5/8	9 1/2	DIS2-34E30
36	9 11/16	4 7/8	18 1/8	9 3/4	DIS2-36E30

30° Elbows - DIS4 (4" Wool Insulated)					
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code
					One Elbow DIS4
5	6 1/16	3	11 3/8	6	DIS4-5E30
6	6 3/16	3 1/8	11 1/2	6 1/4	DIS4-6E30
7	6 5/16	3 1/8	11 3/4	6 1/4	DIS4-7E30
8	6 7/16	3 1/4	12	6 1/2	DIS4-8E30
9	6 5/8	3 3/8	12 3/8	6 3/4	DIS4-9E30
10	6 3/4	3 3/8	12 5/8	6 3/4	DIS4-10E30
11	6 7/8	3 1/2	12 7/8	7	DIS4-11E30
12	7	3 1/2	13	7	DIS4-12E30
13	7 1/8	3 5/8	13 1/4	7 1/4	DIS4-13E30
14	7 1/4	3 5/8	13 1/2	7 1/4	DIS4-14E30
16	7 9/16	3 3/4	14 1/8	7 1/2	DIS4-16E30
18	7 13/16	3 7/8	14 5/8	7 3/4	DIS4-18E30
20	8 1/16	4	15	8	DIS4-20E30
22	8 5/16	4 1/8	15 1/2	8 1/4	DIS4-22E30
24	8 5/8	4 1/4	16 1/8	8 1/2	DIS4-24E30
26	8 7/8	4 3/8	16 1/2	8 3/4	DIS4-26E30
28	9 1/8	4 1/2	17	9	DIS4-28E30
30	9 7/16	4 3/4	17 5/8	9 1/2	DIS4-30E30
32	9 11/16	4 7/8	18 1/8	9 3/4	DIS4-32E30
34	9 15/16	5	18 1/2	10	DIS4-34E30
36	10 3/16	5 1/8	19	10 1/4	DIS4-36E30

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:** K = 0.12

### 30° Elbows (E30) continued

Used to change direction of the duct or to provide offset. Two elbows can establish many different degrees combined with other elbows and may also establish many different offset when combined with standard different lengths.

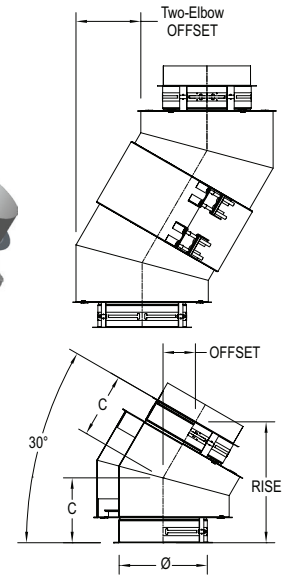
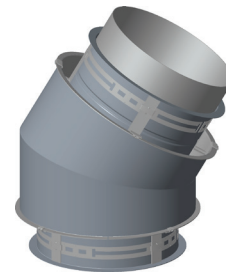
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



30° Elbows - DIS3Z (3" Wool Insulated)					
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code
					One Elbow DIS3Z
5	5 3/4	2 7/8	10 3/4	5 3/4	DIS3Z-5E30
6	5 29/32	2 15/16	11	5 7/8	DIS3Z-6E30
7	6 1/32	3	11 1/4	6	DIS3Z-7E30
8	6 3/32	3 1/32	11 3/8	6 1/16	DIS3Z-8E30
9	6 9/32	3 5/32	11 3/8	6 5/16	DIS3Z-9E30
10	6 7/16	3 7/32	12 1/32	6 7/16	DIS3Z-10E30
11	6 9/16	3 9/32	12 7/32	6 9/16	DIS3Z-11E30
12	6 11/16	3 11/32	12 1/2	6 11/16	DIS3Z-12E30
13	6 13/16	3 7/16	12 23/32	6 7/8	DIS3Z-13E30
14	6 31/32	3 15/32	13	6 15/16	DIS3Z-14E30
16	7 7/32	3 5/8	13 1/2	7 1/4	DIS3Z-16E30
18	7 1/2	3 3/4	14	7 1/2	DIS3Z-18E30
20	7 3/4	3 7/8	14 1/2	7 3/4	DIS3Z-20E30
22	8 1/32	4 1/32	15	8 1/16	DIS3Z-22E30
24	8 5/16	4 5/32	15 1/2	8 5/16	DIS3Z-24E30
26	8 9/16	4 9/32	16	8 9/16	DIS3Z-26E30
28	8 27/32	4 13/32	16 1/2	8 13/16	DIS3Z-28E30
30	9 3/32	4 9/16	17	9 1/8	DIS3Z-30E30
32	9 3/8	4 11/16	17 1/2	9 3/8	DIS3Z-32E30
34	9 5/8	4 13/16	18	9 5/8	DIS3Z-34E30
36	9 29/32	4 15/16	18 15/32	9 7/8	DIS3Z-36E30

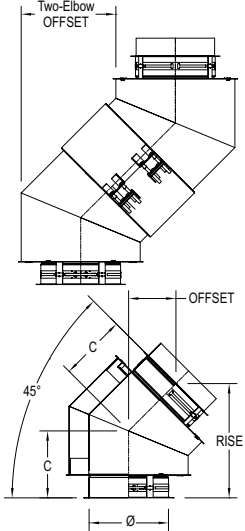
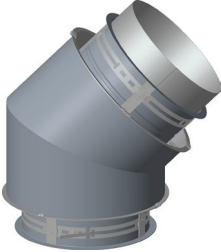
**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:** K = 0.12

### 45° Elbows (E45)

Used to change direction of the duct or to provide offset. Two elbows can establish many different degrees combined with other elbows and may also establish many different offset when combined with standard different lengths.

- Included:**  
**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).  
**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).  
**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).  
**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



45° Elbows - DCL (Single Wall)					
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code
					One Elbow DCL
5	4 7/16	3 1/8	7 9/16	6 1/4	DCL5E45
6	4 5/8	3 1/4	7 7/8	6 1/2	DCL6E45
7	4 13/16	3 3/8	8 1/4	6 3/4	DCL7E45
8	5 1/16	3 5/8	8 5/8	7 1/4	DCL8E45
9	5 1/4	3 3/4	9	7 1/2	DCL9E45
10	5 7/16	3 7/8	9 1/4	7 3/4	DCL10E45
11	5 11/16	4	9 3/4	8	DCL11E45
12	5 7/8	4 1/8	10	8 1/4	DCL12E45
13	6 1/16	4 1/4	10 3/8	8 1/2	DCL13E45
14	6 5/16	4 1/2	10 3/4	9	DCL14E45
16	6 11/16	4 3/4	11 3/8	9 1/2	DCL16E45
18	7 1/8	5	12 1/8	10	DCL18E45
20	7 9/16	5 3/8	12 7/8	10 3/4	DCL20E45
22	7 15/16	5 5/8	13 1/2	11 1/4	DCL22E45
24	8 3/8	5 7/8	14 1/4	11 3/4	DCL24E45
26	8 3/4	6 1/8	14 7/8	12 1/4	DCL26E45
28	9 3/16	6 1/2	15 5/8	13	DCL28E45
30	9 5/8	6 3/4	16 3/8	13 1/2	DCL30E45
32	10	7 1/8	17 1/8	14 1/4	DCL32E45
34	10 7/16	7 3/8	17 7/8	14 3/4	DCL34E45
36	10 7/8	7 3/4	18 5/8	15 1/2	DCL36E45

45° Elbows - DAS1 (1" Air Insulated) / DIS1 (1" Wool Insulated)							
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code		
					One Elbow DAS1	One Elbow DIS1	
5	5 3/4	4 1/8	9 7/8	8 1/4	DAS1-5E45	DIS1-5E45	
6	6	4 1/4	10 1/4	8 1/2	DAS1-6E45	DIS1-6E45	
7	6 3/16	4 3/8	10 5/8	8 3/4	DAS1-7E45	DIS1-7E45	
8	6 3/8	4 1/2	10 7/8	9	DAS1-8E45	DIS1-8E45	
9	6 5/8	4 5/8	11 1/4	9 1/4	DAS1-9E45	DIS1-9E45	
10	6 13/16	4 7/8	11 5/8	9 3/4	DAS1-10E45	DIS1-10E45	
11	7	5	12	10	DAS1-11E45	DIS1-11E45	
12	7 1/4	5 1/8	12 3/8	10 1/4	DAS1-12E45	DIS1-12E45	
13	7 7/16	5 1/4	12 3/4	10 1/2	DAS1-13E45	DIS1-13E45	
14	7 5/8	5 3/8	13	10 3/4	DAS1-14E45	DIS1-14E45	
16	8 1/16	5 3/4	13 3/4	11 1/2	DAS1-16E45	DIS1-16E45	
18	8 7/16	6	14 3/8	12	DAS1-18E45	DIS1-18E45	
20	8 7/8	6 1/4	15 1/8	12 1/2	DAS1-20E45	DIS1-20E45	
22	9 5/16	6 5/8	15 7/8	13 1/4	DAS1-22E45	DIS1-22E45	
24	9 11/16	6 7/8	16 1/2	13 3/4	DAS1-24E45	DIS1-24E45	
26	10 1/8	7 1/8	17 1/4	14 1/4	DAS1-26E45	DIS1-26E45	
28	10 9/16	7 1/2	18	15	DAS1-28E45	DIS1-28E45	
30	10 15/16	7 3/4	18 5/8	15 1/2	DAS1-30E45	DIS1-30E45	
32	11 3/8	8	19 3/8	16	DAS1-32E45	DIS1-32E45	
34	11 3/4	8 1/4	20	16 1/2	DAS1-34E45	DIS1-34E45	
36	12 3/16	8 5/8	20 3/4	17 1/4	DAS1-36E45	DIS1-36E45	

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304  
**Flow resistance:** K = 0.15

### 45° Elbows (E45) continued

Used to change direction of the duct or to provide offset. Two elbows can establish many different degrees combined with other elbows and may also establish many different offset when combined with standard different lengths.

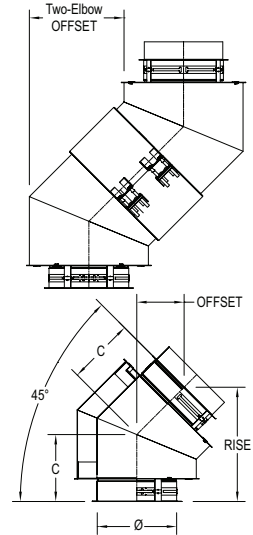
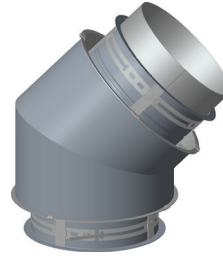
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



45° Elbows - DIS2 (2" Wool Insulated)					
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code
					One Elbow DIS2
5	6 3/16	4 3/8	10 5/8	8 3/4	DIS2-5E45
6	6 3/8	4 1/2	10 7/8	9	DIS2-6E45
7	6 5/8	4 5/8	11 1/4	9 1/4	DIS2-7E45
8	6 13/16	4 7/8	11 5/8	9 3/4	DIS2-8E45
9	7	5	12	10	DIS2-9E45
10	7 1/4	5 1/8	12 3/8	10 1/4	DIS2-10E45
11	7 7/16	5 1/4	12 3/4	10 1/2	DIS2-11E45
12	7 5/8	5 3/8	13	10 3/4	DIS2-12E45
13	7 13/16	5 1/2	13 3/8	11	DIS2-13E45
14	8 1/16	5 3/4	13 3/4	11 1/2	DIS2-14E45
16	8 7/16	6	14 3/8	12	DIS2-16E45
18	8 7/8	6 1/4	15 1/8	12 1/2	DIS2-18E45
20	9 5/16	6 5/8	15 7/8	13 1/4	DIS2-20E45
22	9 11/16	6 7/8	16 1/2	13 3/4	DIS2-22E45
24	10 1/8	7 1/8	17 1/4	14 1/4	DIS2-24E45
26	10 9/16	7 1/2	18	15	DIS2-26E45
28	10 15/16	7 3/4	18 5/8	15 1/2	DIS2-28E45
30	11 3/8	8	19 3/8	16	DIS2-30E45
32	11 3/4	8 1/4	20	16 1/2	DIS2-32E45
34	12 3/16	8 5/8	20 3/4	17 1/4	DIS2-34E45
36	12 5/8	8 7/8	21 1/2	17 3/4	DIS2-36E45

45° Elbows - DIS4 (4" Wool Insulated)					
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code
					One Elbow DIS4
5	7	5	12	10	DIS4-5E45
6	7 1/4	5 1/8	12 3/8	10 1/4	DIS4-6E45
7	7 7/16	5 1/4	12 3/4	10 1/2	DIS4-7E45
8	7 5/8	5 3/8	13	10 3/4	DIS4-8E45
9	7 13/16	5 1/2	13 3/8	11	DIS4-9E45
10	8 1/16	5 3/4	13 3/4	11 1/2	DIS4-10E45
11	8 1/4	5 7/8	14 1/8	11 3/4	DIS4-11E45
12	8 7/16	6	14 3/8	12	DIS4-12E45
13	8 11/16	6 1/8	14 7/8	12 1/4	DIS4-13E45
14	8 7/8	6 1/4	15 1/8	12 1/2	DIS4-14E45
16	9 5/16	6 5/8	15 7/8	13 1/4	DIS4-16E45
18	9 11/16	6 7/8	16 1/2	13 3/4	DIS4-18E45
20	10 1/8	7 1/8	17 1/4	14 1/4	DIS4-20E45
22	10 9/16	7 1/2	18	15	DIS4-22E45
24	10 15/16	7 3/4	18 5/8	15 1/2	DIS4-24E45
26	11 3/8	8	19 3/8	16	DIS4-26E45
28	11 3/4	8 1/4	20	16 1/2	DIS4-28E45
30	12 3/16	8 5/8	20 3/4	17 1/4	DIS4-30E45
32	12 5/8	8 7/8	21 1/2	17 3/4	DIS4-32E45
34	13	9 1/4	22 1/4	18 1/2	DIS4-34E45
36	13 7/16	9 1/2	23	19	DIS4-36E45

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304  
**Flow resistance:** K = 0.15

### 45° Elbows (E45) continued

Used to change direction of the duct or to provide offset. Two elbows can establish many different degrees combined with other elbows and may also establish many different offset when combined with standard different lengths.

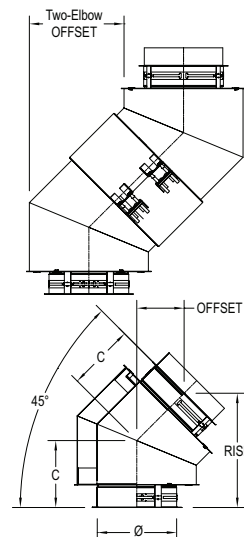
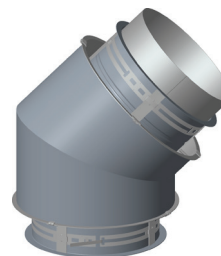
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



45° Elbows - DIS3Z (3" Wool Insulated)					
Ø (in.)	C (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code
					One Elbow DIS3Z
5	6 9/16	4 21/32	11 7/32	9 5/16	DIS3Z-5E45
6	6 25/32	4 25/32	11 9/16	9 9/16	DIS3Z-6E45
7	6 31/32	4 15/16	11 29/32	9 7/8	DIS3Z-7E45
8	7 3/16	5 3/32	12 9/32	10 3/16	DIS3Z-8E45
9	7 13/32	5 7/32	12 5/8	10 7/16	DIS3Z-9E45
10	7 19/32	5 3/8	12 31/32	10 3/4	DIS3Z-10E45
11	7 13/16	5 17/32	13 11/32	11 1/16	DIS3Z-11E45
12	8 1/32	5 21/32	13 11/16	11 5/16	DIS3Z-12E45
13	8 7/32	5 13/16	14 1/32	11 5/8	DIS3Z-13E45
14	8 7/16	5 31/32	14 13/32	11 15/16	DIS3Z-14E45
16	8 27/32	6 1/4	15 3/32	12 1/2	DIS3Z-16E45
18	9 1/4	6 9/16	15 13/16	13 1/8	DIS3Z-18E45
20	9 11/16	6 27/32	16 1/2	13 11/16	DIS3Z-20E45
22	10 3/32	7 1/8	17 7/32	14 1/4	DIS3Z-22E45
24	10 1/2	7 7/16	17 15/16	14 7/8	DIS3Z-24E45
26	10 29/32	7 23/32	18 21/32	15 7/16	DIS3Z-26E45
28	11 11/32	8	19 11/32	16	DIS3Z-28E45
30	11 3/4	8 5/16	20 1/16	16 5/8	DIS3Z-30E45
32	12 5/32	8 19/32	20 3/4	17 3/16	DIS3Z-32E45
34	12 9/16	8 7/8	21 15/32	17 3/4	DIS3Z-34E45
36	13	9 3/16	22 5/32	18 3/8	DIS3Z-36E45

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304  
**Flow resistance:** K = 0.15

### 90° Elbows (E90)

Used to change direction of the duct or to provide offset. Two elbows can establish many different degrees combined with other elbows and may also establish many different offset when combined with standard different lengths.

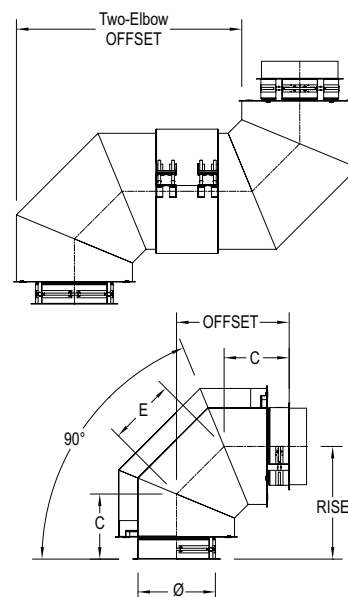
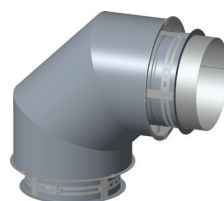
**Included:**

**For DCL:** One (1) Locking Inner “V” Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner “V” Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner “V” Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6” insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner “V” Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



90° Elbows - DCL (Single Wall)						
Ø (in.)	C (in.)	E (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code
						One Elbow DCL
5	4 7/16	3 1/16	6 5/8	6 5/8	13 1/4	DCL5E90
6	4 5/8	3 9/16	7 1/8	7 1/8	14 1/4	DCL6E90
7	4 13/16	4	7 5/8	7 5/8	15 1/4	DCL7E90
8	5 1/16	4 5/16	8 1/8	8 1/8	16 1/4	DCL8E90
9	5 1/4	4 3/4	8 5/8	8 5/8	17 1/4	DCL9E90
10	5 7/16	5 3/16	9 1/8	9 1/8	18 1/4	DCL10E90
11	5 11/16	5 9/16	9 5/8	9 5/8	19 1/4	DCL11E90
12	5 7/8	6	10 1/8	10 1/8	20 1/4	DCL12E90
13	6 1/16	6 7/16	10 5/8	10 5/8	21 1/4	DCL13E90
14	6 5/16	6 13/16	11 1/8	11 1/8	22 1/4	DCL14E90
16	6 11/16	7 11/16	12 1/8	12 1/8	24 1/4	DCL16E90
18	7 1/8	8 1/2	13 1/8	13 1/8	26 1/4	DCL18E90
20	7 9/16	9 1/4	14 1/8	14 1/8	28 1/4	DCL20E90
22	7 15/16	10 3/16	15 1/8	15 1/8	30 1/4	DCL22E90
24	8 3/8	10 15/16	16 1/8	16 1/8	32 1/4	DCL24E90
26	8 3/4	11 7/8	17 1/8	17 1/8	34 1/4	DCL26E90
28	9 3/16	12 5/8	18 1/8	18 1/8	36 1/4	DCL28E90
30	9 5/8	13 7/16	19 1/8	19 1/8	38 1/4	DCL30E90
32	10	14 5/16	20 1/8	20 1/8	40 1/4	DCL32E90
34	10 7/16	15 1/8	21 1/8	21 1/8	42 1/4	DCL34E90
36	10 7/8	15 15/16	22 1/8	22 1/8	44 1/4	DCL36E90

90° Elbows - DAS1 (1" Air Insulated) / DIS1 (1" Wool Insulated)								
Ø (in.)	C (in.)	E (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code		
						One Elbow DAS1	One Elbow DIS1	
5	5 3/4	4 15/16	9 1/4	9 1/4	18 1/2	DAS1-5E90	DIS1-5E90	
6	6	5 5/16	9 3/4	9 3/4	19 1/2	DAS1-6E90	DIS1-6E90	
7	6 3/16	5 3/4	10 1/4	10 1/4	20 1/2	DAS1-7E90	DIS1-7E90	
8	6 3/8	6 3/16	10 3/4	10 3/4	21 1/2	DAS1-8E90	DIS1-8E90	
9	6 5/8	6 9/16	11 1/4	11 1/4	22 1/2	DAS1-9E90	DIS1-9E90	
10	6 13/16	7	11 3/4	11 3/4	23 1/2	DAS1-10E90	DIS1-10E90	
11	7	7 7/16	12 1/4	12 1/4	24 1/2	DAS1-11E90	DIS1-11E90	
12	7 1/4	7 3/4	12 3/4	12 3/4	25 1/2	DAS1-12E90	DIS1-12E90	
13	7 7/16	8 1/4	13 1/4	13 1/4	26 1/2	DAS1-13E90	DIS1-13E90	
14	7 5/8	8 11/16	13 3/4	13 3/4	27 1/2	DAS1-14E90	DIS1-14E90	
16	8 1/16	9 7/16	14 3/4	14 3/4	29 1/2	DAS1-16E90	DIS1-16E90	
18	8 7/16	10 5/16	15 3/4	15 3/4	31 1/2	DAS1-18E90	DIS1-18E90	
20	8 7/8	11 1/8	16 3/4	16 3/4	33 1/2	DAS1-20E90	DIS1-20E90	
22	9 5/16	11 15/16	17 3/4	17 3/4	35 1/2	DAS1-22E90	DIS1-22E90	
24	9 11/16	12 13/16	18 3/4	18 3/4	37 1/2	DAS1-24E90	DIS1-24E90	
26	10 1/8	13 5/8	19 3/4	19 3/4	39 1/2	DAS1-26E90	DIS1-26E90	
28	10 9/16	14 7/16	20 3/4	20 3/4	41 1/2	DAS1-28E90	DIS1-28E90	
30	10 15/16	15 5/16	21 3/4	21 3/4	43 1/2	DAS1-30E90	DIS1-30E90	
32	11 3/8	16 1/16	22 3/4	22 3/4	45 1/2	DAS1-32E90	DIS1-32E90	
34	11 3/4	17	23 3/4	23 3/4	47 1/2	DAS1-34E90	DIS1-34E90	
36	12 3/16	17 3/4	24 3/4	24 3/4	49 1/2	DAS1-36E90	DIS1-36E90	

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:** K = 0.30

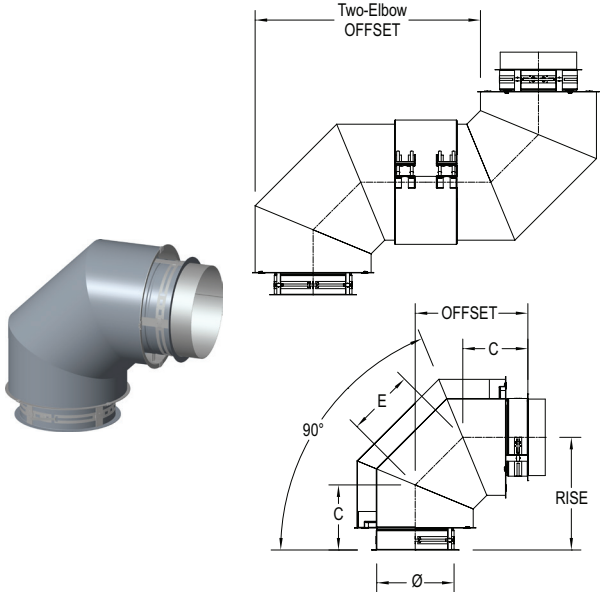


90° Elbows (E90) continued

Used to change direction of the duct or to provide offset. Two elbows can establish many different degrees combined with other elbows and may also establish many different offset when combined with standard different lengths.

Included:

- For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).
- For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).
- For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).
- For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



90° Elbows - DIS2 (2" Wool Insulated)						
Ø (in.)	C (in.)	E (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code
						One Elbow DIS2
5	6 3/16	5 3/4	10 1/4	10 1/4	20 1/2	DIS2-5E90
6	6 3/8	6 3/16	10 3/4	10 3/4	21 1/2	DIS2-6E90
7	6 5/8	6 9/16	11 1/4	11 1/4	22 1/2	DIS2-7E90
8	6 13/16	7	11 3/4	11 3/4	23 1/2	DIS2-8E90
9	7	7 7/16	12 1/4	12 1/4	24 1/2	DIS2-9E90
10	7 1/4	7 3/4	12 3/4	12 3/4	25 1/2	DIS2-10E90
11	7 7/16	8 1/4	13 1/4	13 1/4	26 1/2	DIS2-11E90
12	7 5/8	8 11/16	13 3/4	13 3/4	27 1/2	DIS2-12E90
13	7 13/16	9 1/8	14 1/4	14 1/4	28 1/2	DIS2-13E90
14	8 1/16	9 7/16	14 3/4	14 3/4	29 1/2	DIS2-14E90
16	8 7/16	10 5/16	15 3/4	15 3/4	31 1/2	DIS2-16E90
18	8 7/8	11 1/8	16 3/4	16 3/4	33 1/2	DIS2-18E90
20	9 5/16	11 15/16	17 3/4	17 3/4	35 1/2	DIS2-20E90
22	9 11/16	12 13/16	18 3/4	18 3/4	37 1/2	DIS2-22E90
24	10 1/8	13 5/8	19 3/4	19 3/4	39 1/2	DIS2-24E90
26	10 9/16	14 7/16	20 3/4	20 3/4	41 1/2	DIS2-26E90
28	10 15/16	15 5/16	21 3/4	21 3/4	43 1/2	DIS2-28E90
30	11 3/8	16 1/16	22 3/4	22 3/4	45 1/2	DIS2-30E90
32	11 3/4	17	23 3/4	23 3/4	47 1/2	DIS2-32E90
34	12 3/16	17 3/4	24 3/4	24 3/4	49 1/2	DIS2-34E90
36	12 5/8	18 9/16	25 3/4	25 3/4	51 1/2	DIS2-36E90

90° Elbows - DIS4 (4" Wool Insulated)						
Ø (in.)	C (in.)	E (in.)	Offset (in)	Rise (in)	Two-Elbows Offset (in.)	Product Code
						One Elbow DIS4
5	7	7 7/16	12 1/4	12 1/4	24 1/2	DIS4-5E90
6	7 1/4	7 3/4	12 3/4	12 3/4	25 1/2	DIS4-6E90
7	7 7/16	8 1/4	13 1/4	13 1/4	26 1/2	DIS4-7E90
8	7 5/8	8 11/16	13 3/4	13 3/4	27 1/2	DIS4-8E90
9	7 13/16	9 1/8	14 1/4	14 1/4	28 1/2	DIS4-9E90
10	8 1/16	9 7/16	14 3/4	14 3/4	29 1/2	DIS4-10E90
11	8 1/4	9 7/8	15 1/4	15 1/4	30 1/2	DIS4-11E90
12	8 7/16	10 5/16	15 3/4	15 3/4	31 1/2	DIS4-12E90
13	8 11/16	10 11/16	16 1/4	16 1/4	32 1/2	DIS4-13E90
14	8 7/8	11 1/8	16 3/4	16 3/4	33 1/2	DIS4-14E90
16	9 5/16	11 15/16	17 3/4	17 3/4	35 1/2	DIS4-16E90
18	9 11/16	12 13/16	18 3/4	18 3/4	37 1/2	DIS4-18E90
20	10 1/8	13 5/8	19 3/4	19 3/4	39 1/2	DIS4-20E90
22	10 9/16	14 7/16	20 3/4	20 3/4	41 1/2	DIS4-22E90
24	10 15/16	15 5/16	21 3/4	21 3/4	43 1/2	DIS4-24E90
26	11 3/8	16 1/16	22 3/4	22 3/4	45 1/2	DIS4-26E90
28	11 3/4	17	23 3/4	23 3/4	47 1/2	DIS4-28E90
30	12 3/16	17 3/4	24 3/4	24 3/4	49 1/2	DIS4-30E90
32	12 5/8	18 9/16	25 3/4	25 3/4	51 1/2	DIS4-32E90
34	13	19 7/16	26 3/4	26 3/4	53 1/2	DIS4-34E90
36	13 7/16	20 1/4	27 3/4	27 3/4	55 1/2	DIS4-36E90

Material options (Inner-Outer): 304-Galvalume, 304-304, 316-Galvalume, 316-304  
 Flow resistance: K = 0.30

## 90° Elbows (E90) continued

Used to change direction of the duct or to provide offset. Two elbows can establish many different degrees combined with other elbows and may also establish many different offset when combined with standard different lengths.

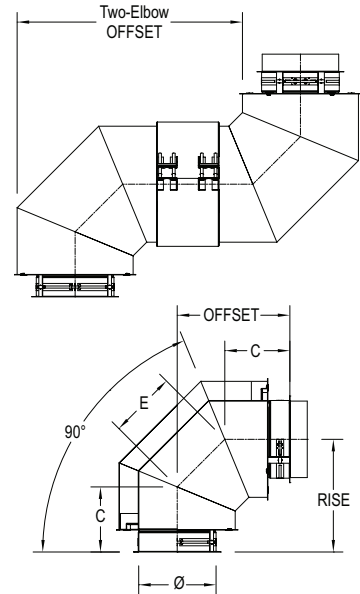
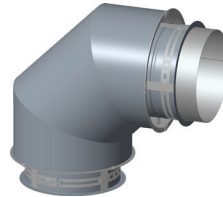
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



90° Elbows - DIS3Z (3" Wool Insulated)						
Ø (in.)	C (in.)	E (in.)	Offset (in.)	Rise (in.)	Two- Elbows Offset (in.)	Product Code
						One Elbow DIS3Z
5	6 9/16	6 9/16	11 7/32	11 7/32	22 7/16	DIS3Z-5E90
6	6 25/32	7	11 23/32	11 23/32	23 7/16	DIS3Z-6E90
7	6 31/32	7 13/32	12 7/32	12 7/32	24 7/16	DIS3Z-7E90
8	7 3/16	7 13/16	12 23/32	12 23/32	25 7/16	DIS3Z-8E90
9	7 13/32	8 7/32	13 7/32	13 7/32	26 7/16	DIS3Z-9E90
10	7 19/32	8 21/32	13 23/32	13 23/32	27 7/16	DIS3Z-10E90
11	7 13/16	9 1/16	14 7/32	14 7/32	28 7/16	DIS3Z-11E90
12	8 1/32	9 15/32	14 23/32	14 23/32	29 7/16	DIS3Z-12E90
13	8 7/32	9 7/8	15 7/32	15 7/32	30 7/16	DIS3Z-13E90
14	8 7/16	10 5/16	15 23/32	15 23/32	31 7/16	DIS3Z-14E90
16	8 27/32	11 1/8	16 23/32	16 23/32	33 7/16	DIS3Z-16E90
18	9 1/4	11 31/32	17 23/32	17 23/32	35 7/16	DIS3Z-18E90
20	9 11/16	12 25/32	18 23/32	18 23/32	37 7/16	DIS3Z-20E90
22	10 3/32	13 5/8	19 23/32	19 23/32	39 7/16	DIS3Z-22E90
24	10 1/2	14 7/16	20 23/32	20 23/32	41 7/16	DIS3Z-24E90
26	10 29/32	15 9/32	21 23/32	21 23/32	43 7/16	DIS3Z-26E90
28	11 11/32	16 3/32	22 23/32	22 23/32	45 7/16	DIS3Z-28E90
30	11 3/4	16 15/16	23 23/32	23 23/32	47 7/16	DIS3Z-30E90
32	12 5/32	17 3/4	24 23/32	24 23/32	49 7/16	DIS3Z-32E90
34	12 9/16	18 19/32	25 23/32	25 23/32	51 7/16	DIS3Z-34E90
36	13	19 13/32	26 23/32	26 23/32	53 7/16	DIS3Z-36E90

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:** K = 0.30

## 90° Tees (T90)

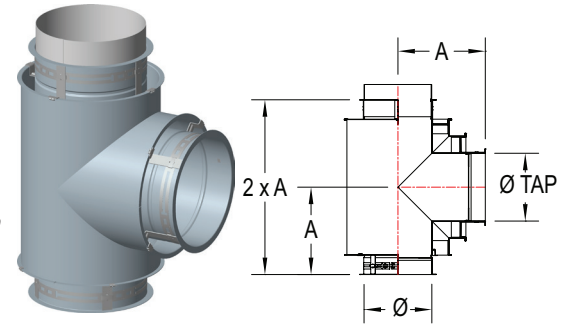
Used to change direction at 90° breeching. Can be used as an inspection access in horizontal or vertical runs as well as drain.

**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).



Ø I.D. (in.)	DCL (Single Wall)		DAS1 (1" Air Insulated) / DIS1 (1" Wool Insulated)			DIS2 (2" Wool Insulated)		DIS4 (4" Wool Insulated)	
	A (in.)	Product Code	A (in.)	Product Code		A (in.)	Product Code	A (in.)	Product Code
5	6 1/16	DCL5T90	7 1/8	DAS1-5T90	DIS1-5T90	8 7/8	DIS2-5T90	10 7/8	DIS4-5T90
6	6 9/16	DCL6T90	7 5/8	DAS1-6T90	DIS1-6T90	9 3/8	DIS2-6T90	11 3/8	DIS4-6T90
7	7 1/16	DCL7T90	8 1/8	DAS1-7T90	DIS1-7T90	9 7/8	DIS2-7T90	11 7/8	DIS4-7T90
8	7 9/16	DCL8T90	8 5/8	DAS1-8T90	DIS1-8T90	10 3/8	DIS2-8T90	12 3/8	DIS4-8T90
9	8 1/16	DCL9T90	9 1/8	DAS1-9T90	DIS1-9T90	10 7/8	DIS2-9T90	12 7/8	DIS4-9T90
10	8 9/16	DCL10T90	9 5/8	DAS1-10T90	DIS1-10T90	11 3/8	DIS2-10T90	13 3/8	DIS4-10T90
11	9 1/16	DCL11T90	10 1/8	DAS1-11T90	DIS1-11T90	11 7/8	DIS2-11T90	13 7/8	DIS4-11T90
12	9 9/16	DCL12T90	10 5/8	DAS1-12T90	DIS1-12T90	12 3/8	DIS2-12T90	15 3/8	DIS4-12T90
13	10 1/16	DCL13T90	11 1/8	DAS1-13T90	DIS1-13T90	12 7/8	DIS2-13T90	15 7/8	DIS4-13T90
14	10 9/16	DCL14T90	12 1/8	DAS1-14T90	DIS1-14T90	13 3/8	DIS2-14T90	16 3/8	DIS4-14T90
16	11 9/16	DCL16T90	13 1/8	DAS1-16T90	DIS1-16T90	15 3/8	DIS2-16T90	17 3/8	DIS4-16T90
18	12 9/16	DCL18T90	14 1/8	DAS1-18T90	DIS1-18T90	16 3/8	DIS2-18T90	18 3/8	DIS4-18T90
20	13 9/16	DCL20T90	15 1/8	DAS1-20T90	DIS1-20T90	17 3/8	DIS2-20T90	19 3/8	DIS4-20T90
22	14 9/16	DCL22T90	16 1/8	DAS1-22T90	DIS1-22T90	18 3/8	DIS2-22T90	20 3/8	DIS4-22T90
24	15 9/16	DCL24T90	17 1/8	DAS1-24T90	DIS1-24T90	19 3/8	DIS2-24T90	23 3/8	DIS4-24T90
26	16 9/16	DCL26T90	18 1/8	DAS1-26T90	DIS1-26T90	20 3/8	DIS2-26T90	24 3/8	DIS4-26T90
28	17 9/16	DCL28T90	19 1/8	DAS1-28T90	DIS1-28T90	23 3/8	DIS2-28T90	25 3/8	DIS4-28T90
30	18 9/16	DCL30T90	20 1/8	DAS1-30T90	DIS1-30T90	24 3/8	DIS2-30T90	26 3/8	DIS4-30T90
32	19 9/16	DCL32T90	21 1/8	DAS1-32T90	DIS1-32T90	25 3/8	DIS2-32T90	27 3/8	DIS4-32T90
34	20 9/16	DCL34T90	22 1/8	DAS1-34T90	DIS1-34T90	26 3/8	DIS2-34T90	28 3/8	DIS4-34T90
36	21 9/16	DCL36T90	23 1/8	DAS1-36T90	DIS1-36T90	27 3/8	DIS2-36T90	29 3/8	DIS4-36T90

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316- 304

**Flow resistance:** K = 1.25"

Also available with Smaller TAP diameter (Øtap).

**Code for Smaller Tap:** DCLØT90B(Øtap), DAS1-T90B(Øtap), DIS1-ØT90B(Øtap), DIS2-ØT90B(Øtap), DIS4-ØT90B(Øtap).

**Code example for Smaller Tap:** a DIS1 90 degrees Tee of Ø12" with a tap of Ø10" = DIS1-12T90B10.

Also available with Smaller TAP (ØTAP) and Smaller Height.

**Code for Smaller TAP & Smaller Height:** DCLØT90B(Øtap)H(Øtap), DAS1-T90B(Øtap)H(Øtap), DIS1-ØT90B(Øtap)H(Øtap), DIS2-ØT90B(Øtap)H(Øtap), DIS4-ØT90B(Øtap)H(Øtap).

**Code example for smaller Tap and smaller Height:** a DIS1 90 degrees Tee of Ø12" with a tap of Ø10" and the Height of a regular T90 of Ø10 = DIS1-12T90B10H10.





## Double 45° Tees (TD45) continued

Used to centrally connect to appliance manifolds to a common chimney. The diameter of the taps ( $\emptyset$ TAPS) must be smaller than the diameter of the body ( $\emptyset$ BODY).

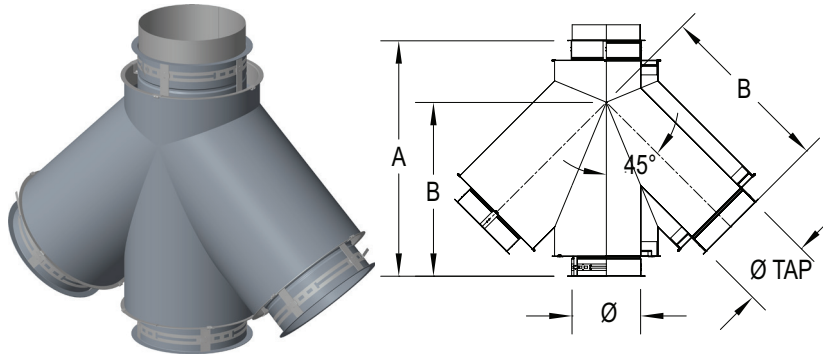
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



Ø (in.)	Ø of the Taps available (in)	DIS2 (2" Wool Insulated)			DIS4 (4" Wool Insulated)		
		A (in.)	B (in.)	Product Code	A (in.)	B (in.)	Product Code
5	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	5	22 7/8	16 7/16	DIS2-6TD45	28 1/2	21 5/16	DIS4-6TD45
7	5 to 6	24 1/4	17 11/16	DIS2-7TD45	29 15/16	22 1/2	DIS4-7TD45
8	5 to 7	25 11/16	18 7/8	DIS2-8TD45	31 5/16	23 11/16	DIS4-8TD45
9	5 to 8	27 1/16	20 1/16	DIS2-9TD45	32 3/4	24 15/16	DIS4-9TD45
10	5 to 9	28 1/2	21 5/16	DIS2-10TD45	34 3/16	26 1/8	DIS4-10TD45
11	5 to 10	29 15/16	22 1/2	DIS2-11TD45	35 9/16	27 5/16	DIS4-11TD45
12	5 to 11	31 5/16	23 11/16	DIS2-12TD45	39	29 1/2	DIS4-12TD45
13	5 to 12	32 3/4	24 15/16	DIS2-13TD45	40 7/16	30 3/4	DIS4-13TD45
14	5 to 13	34 3/16	26 1/8	DIS2-14TD45	41 13/16	31 15/16	DIS4-14TD45
16	5 to 14	39	29 1/2	DIS2-16TD45	44 5/8	34 3/8	DIS4-16TD45
18	5 to 16	41 13/16	31 15/16	DIS2-18TD45	47 1/2	36 3/4	DIS4-18TD45
20	5 to 18	44 5/8	34 3/8	DIS2-20TD45	50 5/16	39 3/16	DIS4-20TD45
22	5 to 20	47 1/2	36 3/4	DIS2-22TD45	53 1/8	41 5/8	DIS4-22TD45
24	5 to 22	50 5/16	39 3/16	DIS2-24TD45	59 15/16	46	DIS4-24TD45
26	5 to 24	53 1/8	41 5/8	DIS2-26TD45	62 13/16	48 7/16	DIS4-26TD45
28	5 to 26	59 15/16	46	DIS2-28TD45	65 5/8	50 13/16	DIS4-28TD45
30	5 to 28	62 13/16	48 7/16	DIS2-30TD45	68 7/16	53 1/4	DIS4-30TD45
32	5 to 30	65 5/8	50 13/16	DIS2-32TD45	71 1/4	55 11/16	DIS4-32TD45
34	5 to 32	68 7/16	53 1/4	DIS2-34TD45	74 1/8	58 1/16	DIS4-34TD45
36	5 to 34	71 1/4	55 11/16	DIS2-36TD45	76 15/16	60 1/2	DIS4-36TD45

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:** K = 0.40

Also available with Smaller TAPS diameter ( $\emptyset$ tap).

**Code for Smaller Tap:** DCLØT45B( $\emptyset$ tap), DAS1-T45B( $\emptyset$ tap), DIS1-ØT45B( $\emptyset$ tap), DIS2-ØT45B( $\emptyset$ tap), DIS4-ØT45B( $\emptyset$ tap).

**Code example for Smaller Taps:** a DIS1 double 45-degrees Tee of Ø12" with a tap of Ø10" = DIS1-12TD45B10.

Also available with Smaller TAPS ( $\emptyset$ TAPS) and Smaller Height.

**Code for Smaller TAPS & Smaller Height:** DCLØTD45B( $\emptyset$ tap)H( $\emptyset$ tap), DAS1-TD45B( $\emptyset$ tap)H( $\emptyset$ tap), DIS1-ØTD45B( $\emptyset$ tap)H( $\emptyset$ tap), DIS2-ØTD45B( $\emptyset$ tap)H( $\emptyset$ tap), DIS4-ØTD45B( $\emptyset$ tap)H( $\emptyset$ tap).

**Code example for smaller Taps and smaller Height:** a DIS1 double 45-degrees Tee of Ø12" with both taps of Ø10" and the Height of a regular TD45 of Ø10" = DIS1-12TD45B10H10.

## Y-Tees (TY)

Used to provide low-pressure drop for joining two appliances. Can be used as a single clean out toward each 90° direction change. Offers same diameter on all branches, but available with smaller snout.

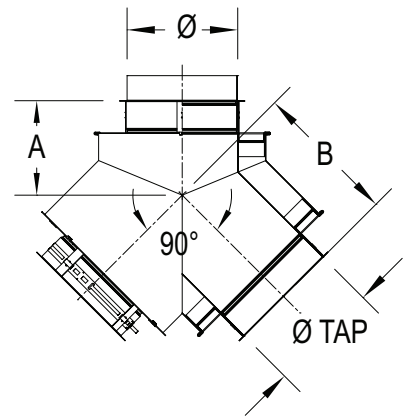
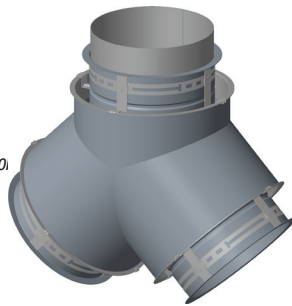
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



Ø I.D. (in.)	DCL (Single Wall)			DAS1 (1" Air Insulated) / DIS1 (1" Wool Insulated)			
	A (in.)	B (in.)	Product Code	A (in.)	B (in.)	Product Code	
5	5 9/16	7 1/16	DCL5TY	5 13/16	7 7/8	DAS1-5TY	DIS1-5TY
6	5 3/4	7 9/16	DCL6TY	6	8 3/8	DAS1-6TY	DIS1-6TY
7	6	8 1/16	DCL7TY	6 3/16	8 7/8	DAS1-7TY	DIS1-7TY
8	6 3/16	8 9/16	DCL8TY	6 7/16	9 3/8	DAS1-8TY	DIS1-8TY
9	6 3/8	9 1/16	DCL9TY	6 5/8	9 7/8	DAS1-9TY	DIS1-9TY
10	6 5/8	9 9/16	DCL10TY	6 13/16	10 3/8	DAS1-10TY	DIS1-10TY
11	6 13/16	10 1/16	DCL11TY	7	10 7/8	DAS1-11TY	DIS1-11TY
12	7	10 9/16	DCL12TY	7 1/4	11 3/8	DAS1-12TY	DIS1-12TY
13	7 1/4	11 1/16	DCL13TY	7 7/16	11 7/8	DAS1-13TY	DIS1-13TY
14	7 7/16	11 9/16	DCL14TY	7 5/8	12 3/8	DAS1-14TY	DIS1-14TY
16	7 7/8	12 9/16	DCL16TY	8 1/16	13 3/8	DAS1-16TY	DIS1-16TY
18	8 1/4	13 9/16	DCL18TY	9 1/2	15 3/8	DAS1-18TY	DIS1-18TY
20	8 11/16	14 9/16	DCL20TY	9 7/8	16 3/8	DAS1-20TY	DIS1-20TY
22	9 1/16	15 9/16	DCL22TY	10 5/16	17 3/8	DAS1-22TY	DIS1-22TY
24	9 1/2	16 9/16	DCL24TY	10 3/4	18 3/8	DAS1-24TY	DIS1-24TY
26	9 15/16	17 9/16	DCL26TY	11 1/8	19 3/8	DAS1-26TY	DIS1-26TY
28	10 5/16	18 9/16	DCL28TY	11 9/16	20 3/8	DAS1-28TY	DIS1-28TY
30	10 3/4	19 9/16	DCL30TY	13 15/16	23 3/8	DAS1-30TY	DIS1-30TY
32	11 3/16	20 9/16	DCL32TY	14 3/8	24 3/8	DAS1-32TY	DIS1-32TY
34	11 9/16	21 9/16	DCL34TY	14 13/16	25 3/8	DAS1-34TY	DIS1-34TY
36	12	22 9/16	DCL36TY	15 3/16	26 3/8	DAS1-36TY	DIS1-36TY

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:** K = 0.60

Also available with Smaller TAP diameter (Øtap).

**Code for Smaller Tap :** DCLØTYB(Øtap), DAS1-TYB(Øtap), DIS1-ØTYB(Øtap), DIS2-ØTYB(Øtap), DIS4-ØTYB(Øtap)

**Code example for Smaller Tap:** a DIS1 90 degrees Tee of Ø12" with a tap of Ø10" = DAS1-12T90B10

**Y-Tees (TY) continued**

Used to provide low-pressure drop for joining two appliances. Can be used as a single clean out toward each 90° direction change. Offers same diameter on all branches, but available with smaller snout.

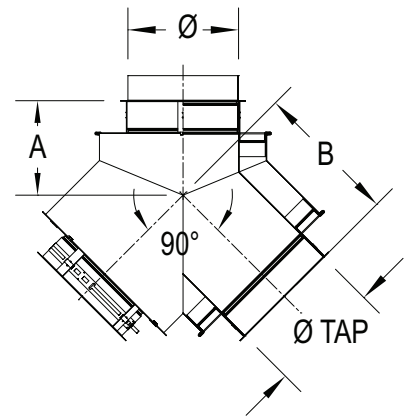
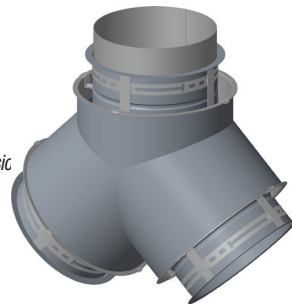
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE)



Ø I.D. (in.)	DIS2 (2" Wool Insulated)			DIS4 (4" Wool Insulated)			DIS3Z (3" Wool Insulated)		
	A (in.)	B (in.)	Product Code	A (in.)	B (in.)	Product Code	A (in.)	B (in.)	Product Code
5	6 3/16	8 7/8	DIS2-5TY	7	10 7/8	DIS4-5TY	6 19/32	9 27/32	DIS3Z-5TY
6	6 7/16	9 3/8	DIS2-6TY	7 1/4	11 3/8	DIS4-6TY	6 13/16	10 11/32	DIS3Z-6TY
7	6 5/8	9 7/8	DIS2-7TY	7 7/16	11 7/8	DIS4-7TY	7 1/32	10 27/32	DIS3Z-7TY
8	6 13/16	10 3/8	DIS2-8TY	7 5/8	12 3/8	DIS4-8TY	7 7/32	11 11/32	DIS3Z-8TY
9	7	10 7/8	DIS2-9TY	7 7/8	12 7/8	DIS4-9TY	7 7/16	11 27/32	DIS3Z-9TY
10	7 1/4	11 3/8	DIS2-10TY	8 1/16	13 3/8	DIS4-10TY	7 5/8	12 11/32	DIS3Z-10TY
11	7 7/16	11 7/8	DIS2-11TY	8 1/4	13 7/8	DIS4-11TY	7 27/32	12 27/32	DIS3Z-11TY
12	7 5/8	12 3/8	DIS2-12TY	9 1/2	15 3/8	DIS4-12TY	8 1/16	13 11/32	DIS3Z-12TY
13	7 7/8	12 7/8	DIS2-13TY	9 11/16	15 7/8	DIS4-13TY	8 1/4	13 27/32	DIS3Z-13TY
14	8 1/16	13 3/8	DIS2-14TY	9 7/8	16 3/8	DIS4-14TY	9 15/32	15 11/32	DIS3Z-14TY
16	9 1/2	15 3/8	DIS2-16TY	10 5/16	17 3/8	DIS4-16TY	9 7/8	16 11/32	DIS3Z-16TY
18	9 7/8	16 3/8	DIS2-18TY	10 3/4	18 3/8	DIS4-18TY	10 9/32	17 11/32	DIS3Z-18TY
20	10 5/16	17 3/8	DIS2-20TY	11 1/8	19 3/8	DIS4-20TY	10 23/32	18 11/32	DIS3Z-20TY
22	10 3/4	18 3/8	DIS2-22TY	11 9/16	20 3/8	DIS4-22TY	10 15/16	19 11/32	DIS3Z-22TY
24	11 1/8	19 3/8	DIS2-24TY	13 15/16	23 3/8	DIS4-24TY	11 17/32	20 11/32	DIS3Z-24TY
26	11 9/16	20 3/8	DIS2-26TY	14 3/8	24 3/8	DIS4-26TY	13 15/16	23 11/32	DIS3Z-26TY
28	13 15/16	23 3/8	DIS2-28TY	14 13/16	25 3/8	DIS4-28TY	14 3/8	24 11/32	DIS3Z-28TY
30	14 3/8	24 3/8	DIS2-30TY	15 3/16	26 3/8	DIS4-30TY	14 25/32	25 11/32	DIS3Z-30TY
32	14 13/16	25 3/8	DIS2-32TY	15 5/8	27 3/8	DIS4-32TY	15 3/16	26 11/32	DIS3Z-32TY
34	15 3/16	26 3/8	DIS2-34TY	16 1/16	28 3/8	DIS4-34TY	15 19/32	27 11/32	DIS3Z-34TY
36	15 5/8	27 3/8	DIS2-36TY	16 7/16	29 3/8	DIS4-36TY	16 1/32	28 11/32	DIS3Z-36TY

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:** K = 0.60

Also available with Smaller TAP diameter (Øtap).

**Code for Smaller Tap :** DCLØTYB(Øtap), DAS1-TYB(Øtap), DIS1-ØTYB(Øtap), DIS2-ØTYB(Øtap), DIS4-ØTYB(Øtap)

**Code example for Smaller Tap:** a DIS1 90 degrees Tee of Ø12" with a tap of Ø10" = DAS1-12T90B10



## Lateral Tees (BT)

Used to change direction at 90° at lower resistance flow.

**NOTE: LATERAL TEE (BT) ONLY AVAILABLE UP TO 24".**  
**FOR SIZES 26"-36", USE A COMBINATION OF 450 TEE (T45) AND 450 ELBOW (E45).**

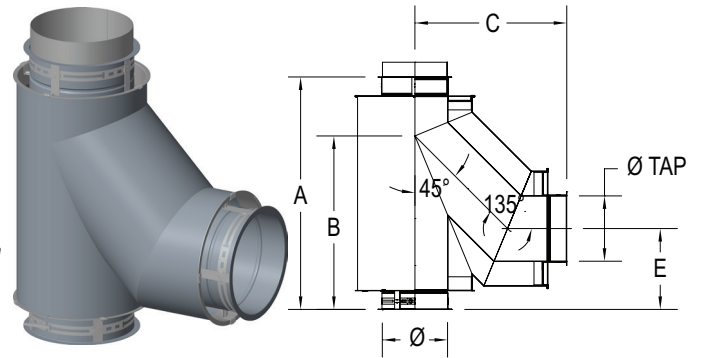
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



Ø I.D. (in.)	DCL (Single Wall)					DAS1 (1" Air Insulated) / DIS1 (1" Wool Insulated)					
	A (in.)	B (in.)	C (in.)	E (in.)	Product Code	A (in.)	B (in.)	C (in.)	E (in.)	Product Code	
5	16 3/16	10 5/8	12 5/16	3 7/8	DCL5BT	18 5/8	12 13/16	12 3/16	6 3/8	DAS1-5BT	DIS1-5BT
6	17 5/8	11 13/16	13 1/4	4 5/16	DCL6BT	20	14 1/16	13 1/8	6 15/16	DAS1-6BT	DIS1-6BT
7	19	13 1/16	14 3/16	4 7/8	DCL7BT	21 7/16	15 1/4	14	7 7/16	DAS1-7BT	DIS1-7BT
8	20 7/16	14 1/4	15 1/16	5 3/8	DCL8BT	22 7/8	16 7/16	14 15/16	7 15/16	DAS1-8BT	DIS1-8BT
9	21 13/16	15 7/16	16	5 7/8	DCL9BT	24 1/4	17 11/16	15 13/16	8 7/16	DAS1-9BT	DIS1-9BT
10	23 1/4	16 11/16	16 7/8	6 3/8	DCL10BT	25 11/16	18 7/8	16 3/4	8 15/16	DAS1-10BT	DIS1-10BT
11	24 11/16	17 7/8	17 13/16	6 7/8	DCL11BT	27 1/16	20 1/16	17 11/16	9 7/16	DAS1-11BT	DIS1-11BT
12	26 1/16	19 1/16	18 3/4	7 3/8	DCL12BT	28 1/2	21 1/4	18 9/16	9 7/8	DAS1-12BT	DIS1-12BT
13	27 1/2	20 5/16	19 5/8	7 7/8	DCL13BT	29 15/16	22 1/2	19 1/2	10 7/16	DAS1-13BT	DIS1-13BT
14	28 15/16	21 1/2	20 9/16	8 3/8	DCL14BT	31 5/16	23 11/16	20 7/16	10 15/16	DAS1-14BT	DIS1-14BT
16	31 3/4	23 15/16	22 3/8	9 3/8	DCL16BT	34 3/16	26 1/8	22 1/4	11 15/16	DAS1-16BT	DIS1-16BT
18	34 9/16	26 5/16	24 3/16	10 3/8	DCL18BT	39	29 1/2	25 3/4	13 3/16	DAS1-18BT	DIS1-18BT
20	37 3/8	28 3/4	26 1/16	11 3/8	DCL20BT	41 13/16	31 15/16	27 5/8	14 3/16	DAS1-20BT	DIS1-20BT
22	40 1/4	31 3/16	27 7/8	12 3/8	DCL22BT	44 5/8	34 3/8	29 7/16	15 1/4	DAS1-22BT	DIS1-22BT
24	43 1/16	33 9/16	29 11/16	13 3/8	DCL24BT	47 1/2	36 3/4	31 1/4	16 3/16	DAS1-24BT	DIS1-24BT

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:** K = 0.55

Also available with Smaller TAP diameter (Øtap).

**Code for Smaller Tap :** DCLØBTB(Øtap), DAS1-BTB(Øtap), DIS1-ØBTB(Øtap), DIS2-ØBTB(Øtap), DIS4-ØBTB(Øtap).

**Code example for Smaller Tap:** a DIS1 Lateral Tee of Ø12" with a tap of Ø10" = DAS1-12BTB10.

Also available with Smaller TAPS (ØTAPS) and Smaller Height.

**Code for Smaller TAPS & Smaller Height:** DCLØBTB(Øtap)H(Øtap), DAS1-BTB(Øtap)H(Øtap), DIS1-ØBTB(Øtap)H(Øtap), DIS2-ØBTB(Øtap)H(Øtap), DIS4-ØBTB(Øtap)H(Øtap).

**Code example for smaller Taps and smaller Height:** a DIS1 Lateral Tee of Ø12" with a tap of Ø10" and the Height of a regular BT of Ø10" = DAS1-12BTB10H10.

## Lateral Tees (BT) continued

Used to change direction at 90° at lower resistance flow.

**NOTE: LATERAL TEE (BT) ONLY AVAILABLE UP TO 24".**  
**FOR SIZES 26"-36", USE A COMBINATION OF 450 TEE (T45) AND 450 ELBOW (E45).**

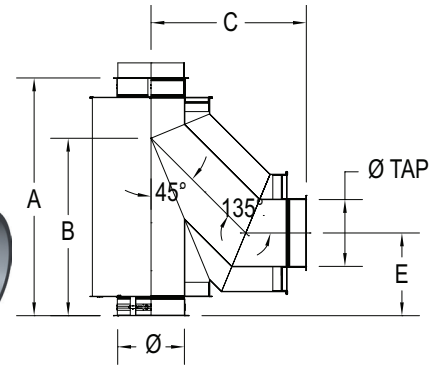
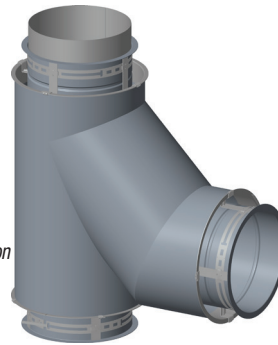
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



Ø I.D. (in.)	DIS2 (2" Wool Insulated)					DIS4 (4" Wool Insulated)					DIS3Z (3" Wool Insulated)				
	A (in.)	B (in.)	C (in.)	E (in.)	Product Code	A (in.)	B (in.)	C (in.)	E (in.)	Product Code	A (in.)	B (in.)	C (in.)	E (in.)	Product Code
5	21 7/16	15 1/4	14	7 7/16	DIS2-5BT	27 1/16	20 1/16	17 11/16	9 7/16	DIS4-5BT	24 1/4	17 21/32	15 13/16	8 7/16	DIS3Z-5BT
6	22 7/8	16 7/16	14 15/16	7 15/16	DIS2-6BT	28 1/2	21 1/4	18 9/16	9 7/8	DIS4-6BT	25 21/32	18 27/32	16 3/4	8 15/16	DIS3Z-6BT
7	24 1/4	17 11/16	15 13/16	8 7/16	DIS2-7BT	29 15/16	22 1/2	19 1/2	10 7/16	DIS4-7BT	27 3/32	20 1/16	17 21/32	9 7/16	DIS3Z-7BT
8	25 11/16	18 7/8	16 3/4	8 15/16	DIS2-8BT	31 5/16	23 11/16	20 7/16	10 15/16	DIS4-8BT	28 1/2	21 9/32	18 9/16	9 15/16	DIS3Z-8BT
9	27 1/16	20 1/16	17 11/16	9 7/16	DIS2-9BT	32 3/4	24 7/8	21 5/16	11 3/8	DIS4-9BT	29 29/32	22 15/32	19 15/32	10 7/16	DIS3Z-9BT
10	28 1/2	21 1/4	18 9/16	9 7/8	DIS2-10BT	34 3/16	26 1/8	22 1/4	11 15/16	DIS4-10BT	31 5/16	23 11/16	20 13/32	10 15/16	DIS3Z-10BT
11	29 15/16	22 1/2	19 1/2	10 7/16	DIS2-11BT	35 9/16	27 5/16	23 3/16	12 7/16	DIS4-11BT	32 3/4	24 29/32	21 5/16	11 7/16	DIS3Z-11BT
12	31 5/16	23 11/16	20 7/16	10 15/16	DIS2-12BT	39	29 1/2	25 3/4	13 3/16	DIS4-12BT	34 5/32	26 3/32	22 7/32	11 15/16	DIS3Z-12BT
13	32 3/4	24 7/8	21 5/16	11 3/8	DIS2-13BT	40 7/16	30 3/4	26 11/16	13 3/4	DIS4-13BT	35 9/16	27 5/16	23 5/32	12 7/16	DIS3Z-13BT
14	34 3/16	26 1/8	22 1/4	11 15/16	DIS2-14BT	41 13/16	31 15/16	27 5/8	14 3/16	DIS4-14BT	38 31/32	29 1/2	25 3/4	13 7/32	DIS3Z-14BT
16	39	29 1/2	25 3/4	13 3/16	DIS2-16BT	44 5/8	34 3/8	29 7/16	15 1/4	DIS4-16BT	41 13/16	31 15/16	27 19/32	14 7/32	DIS3Z-16BT
18	41 13/16	31 15/16	27 5/8	14 3/16	DIS2-18BT	47 1/2	36 3/4	31 1/4	16 3/16	DIS4-18BT	44 5/8	34 11/32	29 13/32	15 7/32	DIS3Z-18BT
20	44 5/8	34 3/8	29 7/16	15 1/4	DIS2-20BT	50 5/16	39 3/16	33 1/16	17 1/4	DIS4-20BT	47 15/32	36 3/4	31 1/4	16 7/32	DIS3Z-20BT
22	47 1/2	36 3/4	31 1/4	16 3/16	DIS2-22BT	53 1/8	41 5/8	34 15/16	18 1/4	DIS4-22BT	50 9/32	39 5/32	33 1/16	17 7/32	DIS3Z-22BT
24	50 5/16	39 3/16	33 1/16	17 1/4	DIS2-24BT	59 15/16	46	40 3/16	19 13/16	DIS4-24BT	53 1/8	41 9/16	34 29/32	18 7/32	DIS3Z-24BT

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:** K = 0.55

Also available with Smaller TAP diameter (Øtap).

**Code for Smaller Tap :** DCLØBTB(Øtap), DAS1-BTB(Øtap), DIS1-ØBTB(Øtap), DIS2-ØBTB(Øtap), DIS4-ØBTB(Øtap).

**Code example for Smaller Tap:** a DIS1 Lateral Tee of Ø12" with a tap of Ø10" = DAS1-12BTB10.

Also available with Smaller TAPS (ØTAPS) and Smaller Height.

**Code for Smaller TAPS & Smaller Height:** DCLØBTB(Øtap)H(Øtap), DAS1-BTB(Øtap)H(Øtap), DIS1-ØBTB(Øtap)H(Øtap), DIS2-ØBTB(Øtap)H(Øtap), DIS4-ØBTB(Øtap)H(Øtap).

**Code example for smaller Taps and smaller Height:** a DIS1 Lateral Tee of Ø12" with a tap of Ø10" and the Height of a regular BT of Ø10 = DAS1-12BTB10H10.

## Tee Cap (TC)

Used to close, seal or provide access for cleanout unused tee ports.

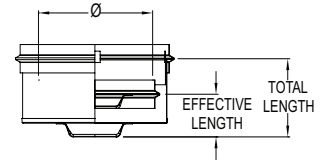
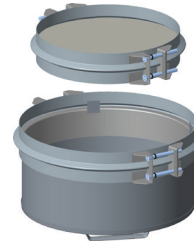
**Included:**

**For DCL:** One (1) disc with handle, and one (1) SMALL Locking Inner "V" Band (BSI).

**For DAS1:** One (1) disc with handle, one (1) SMALLER Locking Inner "V" Band (BSI), one (1) LARGER Locking Inner "V" Band, and one (1) outer bucket-casing with handles.

**For DIS1, DIS2, and DIS4:** One (1) disc with handle, one (1) SMALLER Locking Inner "V" Band (BSI), one (1) LARGER Locking Inner "V" Band, one (1) outer bucket-casing with handles, one (1) (DIS1, DIS2) or two (2) (DIS4) round Insulated pad, and one (1) insulation wrap.

**For DIS3Z:** One (1) disc, one (1) SMALL Locking Inner "V" Band (BSI), one (1) LARGE Locking Inner "V" Band, one (1) outer casing, one (1) insulation wrap, three (3) insulation disc.



Ø (in.)	DCL (Single Wall)			DAS1 (1" Air Insulated) / DIS1 (1" Wool Insulated)			DIS2 (2" Wool Insulated)			DIS4 (4" Wool Insulated)			DIS3Z (3" Wool Insulated)		
	Total Length (in)	Effective Length (in)	Product Code	Total Length (in)	Effective Length (in)	Product Code	Total Length (in)	Effective Length (in)	Product Code	Total Length (in)	Effective Length (in)	Product Code	Total Length (in)	Effective Length (in)	Product Code
5 to 36	1	1	DCLØTC	5 1/2	2 3/4	DAS1-ØTC DIS1-ØTC	6 1/2	3 3/4	DIS2-ØTC	8 1/2	5 3/4	DIS4-ØTC	7 1/2	4 3/4	DIS3Z-ØTC

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

## Drain Tee Cap (DTC)

Used to close and seal unused tee ports and to provide drain point for condensation at the base of a vertical duct run. 1" NPT nipple.

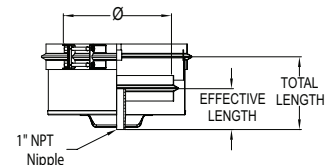
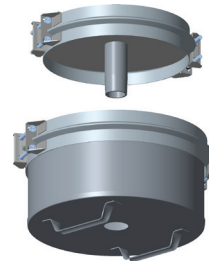
**Included:**

**For DCL:** One (1) disc with a 1" NPT nipple and one (1) SMALL Locking Inner "V" Band (BSI).

**For DAS1:** One (1) disc with a 1" NPT, one (1) SMALLER Locking Inner "V" Band (BSI), one (1) LARGER Locking Inner "V" Band, and one (1) outer bucket-casing with handles.

**For DIS1, DIS2, and DIS4:** One (1) disc with a 1" NPT, one (1) SMALLER Locking Inner "V" Band (BSI), one (1) LARGER Locking Inner "V" Band, one (1) outer bucket-casing with Handles, one (1) (DIS1 and DIS2) or two (2) (DIS4 only) round Insulated pad, and one (1) insulation wrap.

**For DIS3Z:** One (1) disc with a 1 NPT, one (1) SMALL Locking Inner "V" Band (BSI), one (1) LARGE Locking Inner "V" Band, one (1) outer casing, one (1) insulation wrap, three (3) insulation disc.



Ø (in.)	DCL (Single Wall)			DAS1 (1" Air Insulated) / DIS1 (1" Wool Insulated)			DIS2 (2" Wool Insulated)			DIS4 (4" Wool Insulated)			DIS3Z (3" Wool Insulated)		
	Total Length (in)	Effective Length (in)	Product Code	Total Length (in)	Effective Length (in)	Product Code	Total Length (in)	Effective Length (in)	Product Code	Total Length (in)	Effective Length (in)	Product Code	Total Length (in)	Effective Length (in)	Product Code
5 to 36	2	2	DCLØDTC	5 1/2	3	DAS1-ØDTC DAS1-ØDTC	6 1/2	4	DIS2-ØDTC	8 1/2	6	DIS4-ØDTC	7 1/2	4 7/8	DIS3Z-ØDTC

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

### Tapered Increaser Adaptors (TINØ)

Used when a pipe diameter change (increasing) is required. Tapered increasers are preferred over Step Increasers when space permits.

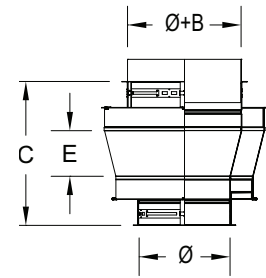
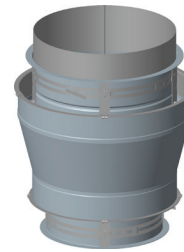
**Included:**

**For DCL:** All items for the LARGER diameter: One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** All items for the LARGER diameter: One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** All items for the LARGER diameter: One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



Ø (in.)	B	C - Effective Length (in.)	E (in.)	Product Code					
				DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)	DIS3Z (3" Insulated)
From Ø5 to Ø14, diameter increments by 1"	1	10 3/4	2	DCLØTIN(Ø+B)	DAS1-ØTIN(Ø+B)	DIS1-ØTIN(Ø+B)	DIS2-ØTIN(Ø+B)	DIS4-ØTIN(Ø+B)	DIS3Z-ØTIN(Ø+B)
	2	12 3/4	4						
	3	14 3/4	6						
	4	16 3/4	8						
	5	18 3/4	10						
	6	20 3/4	12						
From Ø16 to Ø34, diameter increments by 2"	2	12 3/4	4	DCLØTIN(Ø+B)	DAS1-ØTIN(Ø+B)	DIS1-ØTIN(Ø+B)	DIS2-ØTIN(Ø+B)	DIS4-ØTIN(Ø+B)	DIS3Z-ØTIN(Ø+B)
	4	16 3/4	8						
	6	20 3/4	12						

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:**  $K = 0.63 [1 - (\frac{\text{Ø}}{\text{Ø+B}})^2]^2 / (\frac{\text{Ø}}{\text{Ø+B}})^4$

### Eccentric Tapered Increaser Adaptors (ETINØ)

Used when a pipe diameter change (increasing) and a flat bottom on horizontal runs is required.

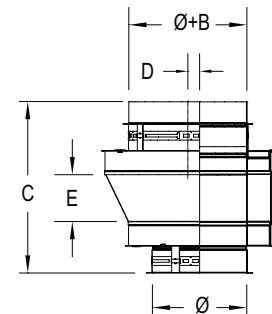
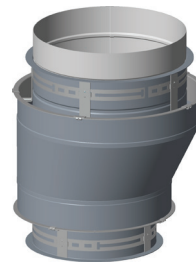
**Included:**

**For DCL:** All items for the LARGER diameter: One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** All items for the LARGER diameter: One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** All items for the LARGER diameter: One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



Ø (in.)	B	C - Effective Length (in.)	D - Offset (in.)	E (in.)	Product Code					
					DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)	DIS3Z (3" Insulated)
From Ø5 to Ø14, diameter increments by 1"	1	10 3/4	1/2	2	DCLØETIN(Ø+B)	DAS1-ØETIN(Ø+B)	DIS1-ØETIN(Ø+B)	DIS2-ØETIN(Ø+B)	DIS4-ØETIN(Ø+B)	DIS3Z-ØETIN(Ø+B)
	2	12 3/4	1	4						
	3	14 3/4	1 1/2	6						
	4	16 3/4	2	8						
	5	18 3/4	2 1/2	10						
	6	20 3/4	3	12						
From Ø16 to Ø34, diameter increments by 2"	2	12 3/4	1	4	DCLØETIN(Ø+B)	DAS1-ØETIN(Ø+B)	DIS1-ØETIN(Ø+B)	DIS2-ØETIN(Ø+B)	DIS4-ØETIN(Ø+B)	DIS3Z-ØETIN(Ø+B)
	4	16 3/4	2	8						
	6	20 3/4	3	12						

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:**  $K = 0.63 [1 - (\frac{\text{Ø}}{\text{Ø+B}})^2]^2 / (\frac{\text{Ø}}{\text{Ø+B}})^4$

### Step Increaser Adaptors (INØ)

Used when a pipe diameter change (increasing) is required in a small space.

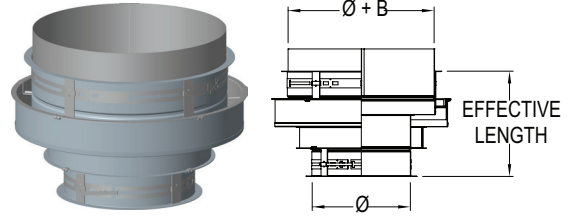
**NOTE: Tapered Increasers are preferred over Step Increasers when space permits. NOT AVAILABLE FOR MODEL DIS3Z**

**Included:**

**For DCL:** All items for the LARGER diameter: One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** All items for the LARGER diameter: One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** All items for the LARGER diameter: One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).



Ø (in.)	B	C - Effective Length (in.)	Product Code				
			DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)
From Ø5" to Ø14", diameter increments by 1"	1" to 6"	8 5/8	DCLØIN(Ø+B)	DAS1-ØIN(Ø+B)	DIS1-ØIN(Ø+B)	DIS2-ØIN(Ø+B)	DIS4-ØIN(Ø+B)
From Ø16" to Ø34", diameter increments by 2"	2", 4" or 6"						

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:**  $K = [1 - (\frac{\text{Ø}}{\text{Ø+B}})]^2$

### Tapered Reducer Adaptors (TRDØ)

Used when a pipe diameter change (reducing) is required.

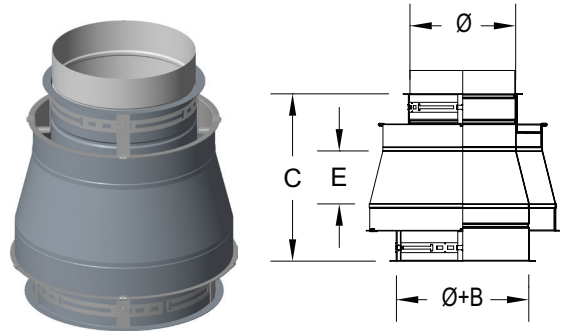
**NOTE: NOT AVAILABLE FOR MODEL DIS3Z**

**Included:**

**For DCL:** All items for the SMALLER diameter: One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** All items for the SMALLER diameter: One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** All items for the SMALLER diameter: One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).



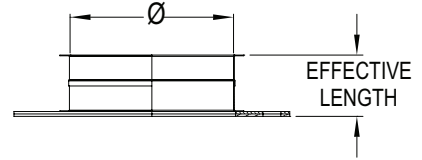
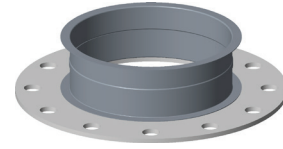
Ø (in.)	B	C - Effective Length (in.)	E (in.)	Product Code				
				DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)
From Ø6" to Ø14", diameter increments by 1"	1	10 3/4	2	DCLØTRD(Ø-B)	DAS1-ØTRD(Ø-B)	DIS1-ØTRD(Ø-B)	DIS2-ØTRD(Ø-B)	DIS4-ØTRD(Ø-B)
	2	12 3/4	4					
	3	14 3/4	6					
	4	16 3/4	8					
	5	18 3/4	10					
	6	20 3/4	12					
From Ø16" to Ø36", diameter increments by 2"	2	12 3/4	4	DCLØTRD(Ø-B)	DAS1-ØTRD(Ø-B)	DIS1-ØTRD(Ø-B)	DIS2-ØTRD(Ø-B)	DIS4-ØTRD(Ø-B)
	4	16 3/4	8					
	6	20 3/4	12					

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:**  $K = 0.63 [1 - (\frac{\text{Ø}}{\text{Ø+B}})]^2 / (\frac{\text{Ø}}{\text{Ø+B}})^4$

## ANSI Flange Adaptors (TRDØ)

Used to attach flue components to a class 125 lb or 150 lb ANSI. Dimensions are per ANSI 125 lb. Nut, Bolts and gasket kit for the ANSI flange are not included.



**NOTE: For DAS1, DIS1, DIS2, and DIS4, the Outer Band (BSE) works as the outer wall of the adaptor. NOT AVAILABLE FOR MODEL DIS3Z**

**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

Ø (in.)	Effective Length (in)	Product Code				
		DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)
5" to 36"	3"	DCLØFA	DAS1-ØFA	DIS1-ØFA	DIS2-ØFA	DIS4-ØFA

**Material options (Inner):** 304, 316

**Flow resistance:**

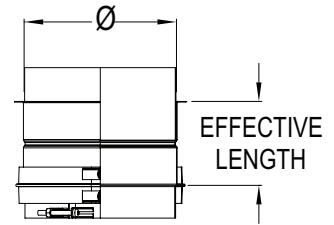
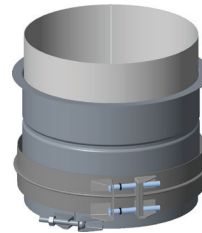
Ø5" to Ø16": K = 0.4 (eff. length [ft] / Ø [in])

Ø18" to Ø36": K = 0.3 (eff. length [ft] / Ø [in])

For Engine and Turbine Exhausts,: K = 0.25 (eff. length [ft] / Ø [in])

## Single Wall Adaptor (SWA)

Used to attach pipe straight shank outlets.



**NOTE: For DIS1, DIS2, DIS4, and DAS1, the outerband (BSE) can be used as the outer wall of the adaptor. NOT AVAILABLE FOR MODEL DIS3Z**

**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) Locking Band (BS) and a Retaining Band.

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) Locking Band (BS), one (1) Retaining Band, and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) Locking Band (BS), one (1) Retaining Band, one (1) 6" insulation band, and one (1) Outer Band (BSE).

Ø (in.)	Effective Length (in)	Product Code				
		DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)
5" to 36"	4 3/8"	DCLØSWA	DAS1-ØSWA	DIS1-ØSWA	DIS2-ØSWA	DIS4-ØSWA

**Material options (Inner):** 304, 316

**Flow resistance:**

Ø5" to Ø16": K = 0.4 (eff. length [ft] / Ø [in])

Ø18" to Ø36": K = 0.3 (eff. length [ft] / Ø [in])

For Engine and Turbine Exhausts,: K = 0.25 (eff. length [ft] / Ø [in])

### Single Wall Adaptor with Test port (SWAN)

Used to attach pipe straight shank outlets and has a  $\varnothing 1/2" \times 3"$  NPT test port with a cap.

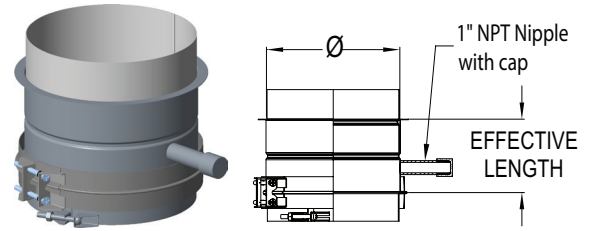
**NOTE: The Outer Band (BSE) can be used as the outer wall of the adaptor. If the BSE is used, it must be field cut to let the nozzle pass through. NOT AVAILABLE FOR MODEL DIS3Z**

**Included:**

**For DCL :** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) Locking Band (BS) and a Retaining Band.

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) Locking Band (BS), one (1) Retaining Band, and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) Locking Band (BS), one (1) Retaining Band, one (1) 6" insulation band, and one (1) Outer Band (BSE).



Ø (in.)	Effective Length (in)	Product Code				
		DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)
5" to 36"	4 3/8"	DCLØSWAN	DAS1-ØSWAN	DIS1-ØSWAN	DIS2-ØSWAN	DIS4-ØSWAN

**Material options (Inner):** 304, 316

**Flow resistance:**

$\varnothing 5"$  to  $\varnothing 16"$ :  $K = 0.4$  (eff. length [ft] /  $\varnothing$  [in])

$\varnothing 18"$  to  $\varnothing 36"$ :  $K = 0.3$  (eff. length [ft] /  $\varnothing$  [in])

For Engine and Turbine Exhausts,:  $K = 0.25$  (eff. length [ft] /  $\varnothing$  [in])

### Half Universal Flange (HUF)

Used to connect a pipe to a boiler or other appliance having a flange outlet with 4, 6, 8, 12, 16, 24, or no bolt pattern.

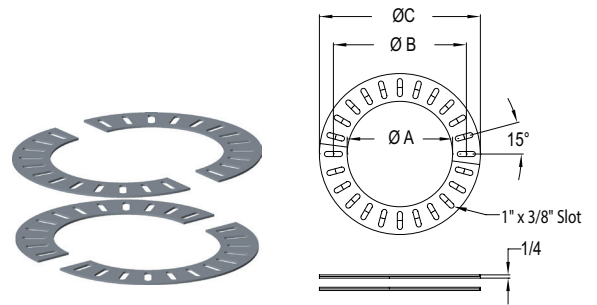
**NOTE: NOT AVAILABLE FOR MODEL DIS3Z**

**Included:**

**For DCL:** Four (4) Half Clamp Plates of 1/8" thickness.

**For s:** 1 Four (4) Half Clamp Plates, and two (2) Half Outer Band (DBSE).

**For DIS1, DIS2 and DIS4:** Four (4) Half Clamp Plates, two (2) Half Outer Band (DBSE), and two (2) 3" insulation band.



Ø (in.)	Effective Length (in)	ØA (I.D.) (in)	ØB (B.C.) (in)	ØC (O.D.) (in)	Product Code				
					DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)
5" to 36"	0"	$\varnothing + 1/8"$	$\varnothing + 2 1/4"$	$\varnothing + 4 1/4"$	DCLØHUF	DAS1-ØHUF	DIS1-ØHUF	DIS2-ØHUF	DIS4-ØHUF

**Material options (Inner):** SS 439 .125"

### Square to Round (STRAB) or Round to Square (RTSAB), where "A" & "B" are the square dimensions

Used to connect a round chimney to a square/rectangular connection and vice versa. The square dimension is designed to be connected by means of lap of weld on the field. These parts are always considered custom parts.

**NOTE: ALL DIMENSIONS DATA MUST BE ANALYSED AND APPROVED BY DURAVENT TECHNICAL SUPPORT BEFORE ORDERING. NOT AVAILABLE FOR MODEL DIS3Z**

Dimensional data to specify :

- the exact size of the outer dimensions of the square or rectangular (A" x B" ) ;
- the diameter of the round end (i.e. the DCL, DAS1, DIS1, DIS2, and DIS4 flue dimension);
- the effective height;
- the flange dimension on the square or rectangular end if not 1 1/2";
- the option of the square flange:
  - Option #1 = a 1" Flue extension on the square/rectangle side,
  - Option #2 = No flue Extension on the square/rectangular side.

**NOTE: Standard dimensions will be as follow:**

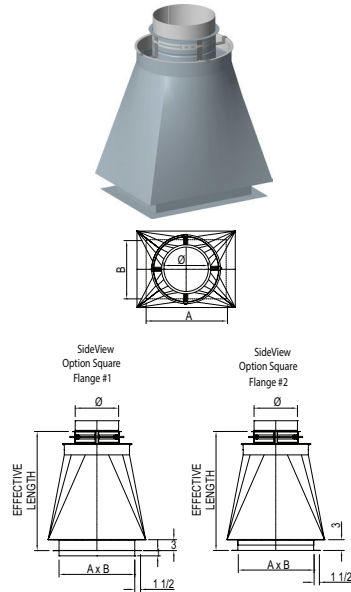
- Option #1
- Effective length = 20"
- 1 1/2" wide flange on the square/rectangular.

Included:

For DCL: One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794).

For DAS1: One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

For DIS1, DIS2 and DIS4: One(1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).



Ø (in.)	Effective Length (in)	Square Dimensions		Option	Product Code				
		A (in)	B (in)		DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)
5" to 36"	20" or Custom	Custom	Custom	#1 or #2	DCLØSTRAB	DAS1-ØSTRAB	DIS1-ØSTRAB	DIS2-ØSTRAB	DIS4-ØSTRAB
					DCLØRTSAB	DAS1-ØRTSAB	DIS1-ØRTSAB	DIS2-ØRTSAB	DIS4-ØRTSAB

Material options (Inner-Outer): 304-Galvalume, 304-304, 316-Galvalume, 316-304

Flow resistance: K = unknown (custom)

### Eccentric Square to Round (CUSTOM) or Eccentric Round to Square (CUSTOM), where "A" & "B" are the square dimensions and the "C" and "D" is the offset of the round part.

It is similar to a STR except the round collar is offset from center of the square collar. Same used as the STR, but can have a flat bottom on horizontal runs or provide an offset (C X D). The square dimension is designed to be connected by means of lap of weld on the field.

**NOTE: ALL DIMENSIONS DATA MUST BE ANALYSED AND APPROVED BY DURAVENT TECHNICAL SUPPORTS BEFORE ORDERING. NOT AVAILABLE FOR MODEL DIS3Z**

Dimensional data to specify :

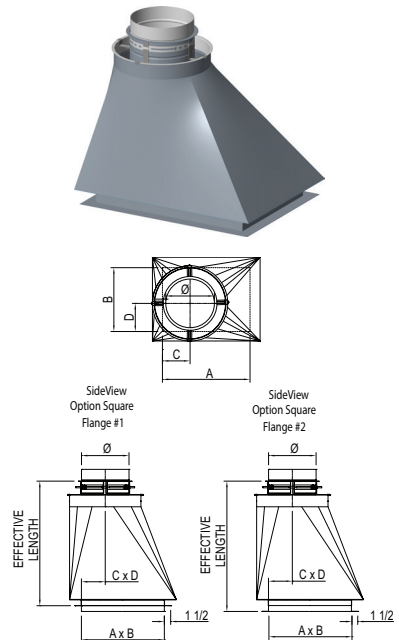
- the exact size of the outer dimensions of the square or rectangular (A" x B" );
- Specify the offset dimensions C" x D" referred to one outer side of the square and the center of the round end;
- the diameter of the round end (i.e. the DCL, DAS PRO or DIS PRO flue dimension);
- the effective height;
- the flange dimension on the square or rectangular end if not 1 1/2";
- the option of the square flange:
  - Option #1 = a 1" Flue extension on the square/rectangle side,
  - Option #2 = No flue Extension on the square/rectangular side.

Included:

For DCL: One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794).

For DAS1: One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

For DIS1, DIS2 and DIS4: One(1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).



Ø (in.)	Effective Length (in)	Square Dimensions		Offset Dimensions (from the center)		Option	Product Code				
		A (in)	B (in)	C (in)	D (in)		DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)
5" to 36"	Custom	Custom	Custom	Custom	Custom	#1 or #2	Custom	Custom	Custom	Custom	Custom
							Custom	Custom	Custom	Custom	Custom

Material options (Inner-Outer): 304-Galvalume, 304-304, 316-Galvalume, 316-304

Flow resistance: K = unknown (custom)



## Fan Adaptor (FAN)

Used to connect to a fan or any kind of device that requires a square plate adapter. Standard square plate size.

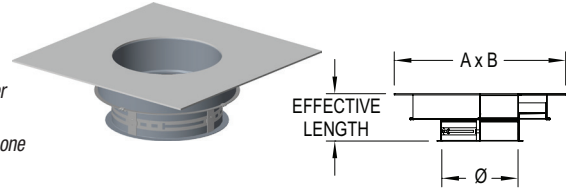
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2 and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794).



Ø (in.)	Effective Length (in)	A (in)	B (in)	Product Code					
				DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)	DIS3Z (3" Insulated)
5 to 36	5	Ø + 12	Ø + 12	DCLØFAN	DAS1-ØFAN	DIS1-ØFAN	DIS2-ØFAN	DIS4-ØFAN	DIS3Z-ØFAN

Also available custom plate size as custom part. Dimension A and B must be specified.

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:**

Ø6" to Ø16": K = 0.4 (eff. length [ft] / Ø [in])

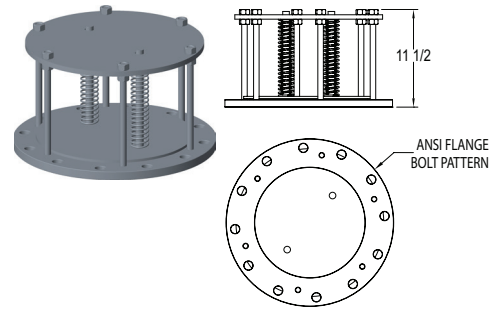
Ø18" to Ø36": K = 0.3 (eff. length [ft] / Ø [in])

For Engine and Turbine Exhausts.: K = 0.25 (eff. length [ft] / Ø [in])

## Accessories

### Relief Valve (RV)

For use on all engine exhaust applications. It helps to control the venting pressure when a backfire occurs. Consists of a spring loaded disk valve mounted on an ANSI Flange. Must be used in conjunction with a ANSI Flange adaptor (FA) and a 45° Tee (T45). The nuts, bolts and gasket kit for ANSI are not included (by others).



**NOTE: NOT AVAILABLE FOR MODEL DIS3Z.**

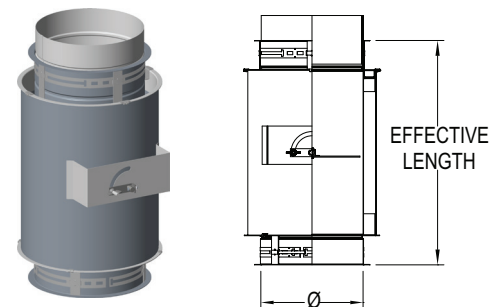
**Included:**

**For DCL, DAS1, DIS1, DIS2 and DIS4:** One (1) Relief Valve (RV) only.

Ø (in.)	Effective Length (in)	Product Code				
		DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)
5" to 36"	11 1/2"	DCLØRV	DAS1-ØRV	DIS1-ØRV	DIS2-ØRV	DIS4-ØRV

### Damper Length (LxxDAMP)

Used to ensure optimum pressures through an appliance. It will aid in the proper operation and efficiency of the appliance by preventing higher than desired draft readings. It has a disc inside the flue. This disc can be controled and rotated from 0° to 90° manually from the outside of the part by the mean of a rod and braket.



**NOTE: NOT AVAILABLE FOR MODEL DIS3Z.**

**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

Ø (in.)	Effective Length (in)	Product Code				
		DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)
5" to 12"	11 5/8"	DCLØL12DAMP	DAS1-ØL12DAMP	DIS1-ØL12DAMP	DIS2-ØL12DAMP	DIS4-ØL12DAMP
13" to 18"	17 5/8"	DCLØL18DAMP	DAS1-ØL18DAMP	DIS1-ØL18DAMP	DIS2-ØL18DAMP	DIS4-ØL18DAMP
20" to 24"	24 1/8"	DCLØL24DAMP	DAS1-ØL24DAMP	DIS1-ØL24DAMP	DIS2-ØL24DAMP	DIS4-ØL24DAMP

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

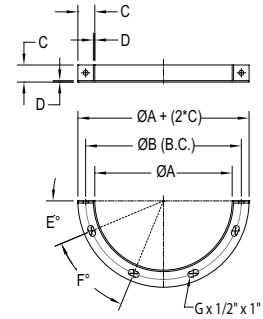
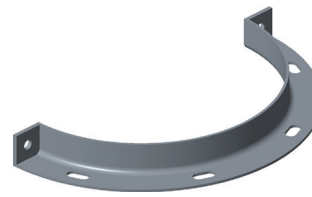
**Flow resistance:** Ø5" to Ø24": 0 to 9999

## Half Angle Ring (HAR)

Used for supporting and guiding the chimney on horizontal runs. See installation instructions for spacing. Effective Length = 0"

**Included:**

**For DCL, DAS1, DIS1, DIS2, DIS4, and DIS3Z:** One (1) Half Angle Ring (HAR) only.  
Hardware for connection to structure is not included (by others).



ØA (I.D.) (in)	ØB (B.C.) (in)	C (Total Length) (in)	D (in)	E°	F°	G (# holes per half)	Product Code				
							DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)
5 1/16	6 5/16	1	1/8	30	60	3	DCL5HAR	---	---	---	---
6 3/32	7 5/16	1 1/4	1/8	30	60	3	DCL6HAR	---	---	---	---
7 1/8	8 1/2	1 1/4	1/8	30	60	3	DCL7HAR	DAS1-5HAR	DIS1-5HAR	---	---
8 1/8	9 1/2	1 1/4	1/8	30	60	3	DCL8HAR	DAS1-6HAR	DIS1-6HAR	---	---
9 1/8	10 5/8	1 1/4	1/8	30	60	3	DCL9HAR	DAS1-7HAR	DIS1-7HAR	DIS2-5HAR	---
10 1/8	11 1/2	1 1/4	1/8	30	60	3	DCL10HAR	DAS1-8HAR	DIS1-8HAR	DIS2-6HAR	---
11 1/8	12 3/4	1 1/4	1/8	30	60	3	DCL11HAR	DAS1-9HAR	DIS1-9HAR	DIS2-7HAR	---
12 3/16	13 13/16	1 1/2	1/8	22.5	45	4	DCL12HAR	DAS1-10HAR	DIS1-10HAR	DIS2-8HAR	---
13 3/16	15	1 1/2	1/8	22.5	45	4	DCL13HAR	DAS1-11HAR	DIS1-11HAR	DIS2-9HAR	DIS4-5HAR
14 3/16	16	1 1/2	1/8	22.5	45	4	DCL14HAR	DAS1-12HAR	DIS1-12HAR	DIS2-10HAR	DIS4-6HAR
15 3/16	17	1 1/2	1/8	22.5	45	4	---	DAS1-13HAR	DIS1-13HAR	DIS2-11HAR	DIS4-7HAR
16 3/16	18	1 1/2	1/8	22.5	45	4	DCL16HAR	DAS1-14HAR	DIS1-14HAR	DIS2-12HAR	DIS4-8HAR
17 3/16	19	1 1/2	1/8	22.5	45	4	---	---	---	DIS2-13HAR	DIS4-9HAR
18 3/16	19 3/4	1 1/2	1/8	22.5	45	4	DCL18HAR	DAS1-16HAR	DIS1-16HAR	DIS2-14HAR	DIS4-10HAR
19 3/16	20 3/4	1 1/2	1/8	15	30	6	---	---	---	---	DIS4-11HAR
20 3/16	21 3/4	1 1/2	1/8	15	30	6	DCL20HAR	DAS1-18HAR	DIS1-18HAR	DIS2-16HAR	DIS4-12HAR
21 3/16	22 3/4	1 1/2	1/8	15	30	6	---	---	---	---	DIS4-13HAR
22 3/16	23 3/4	1 1/2	1/8	15	30	6	DCL22HAR	DAS1-20HAR	DIS1-20HAR	DIS2-18HAR	DIS4-14HAR
24 3/16	25 3/4	1 1/2	1/8	15	30	6	DCL24HAR	DAS1-22HAR	DIS1-22HAR	DIS2-20HAR	DIS4-16HAR
26 3/16	28 3/8	2	1/8	11.25	22.5	8	DCL26HAR	DAS1-24HAR	DIS1-24HAR	DIS2-22HAR	DIS4-18HAR
28 3/16	30 3/8	2	1/8	11.25	22.5	8	DCL28HAR	DAS1-26HAR	DIS1-26HAR	DIS2-24HAR	DIS4-20HAR
30 3/16	32 3/8	2	1/8	11.25	22.5	8	DCL30HAR	DAS1-28HAR	DIS1-28HAR	DIS2-26HAR	DIS4-22HAR
32 3/16	34 3/8	2	1/8	11.25	22.5	8	DCL32HAR	DAS1-30HAR	DIS1-30HAR	DIS2-28HAR	DIS4-24HAR
34 3/16	36 3/8	2	1/8	11.25	22.5	8	DCL34HAR	DAS1-32HAR	DIS1-32HAR	DIS2-30HAR	DIS4-26HAR
36 3/16	38 3/8	2	1/8	11.25	22.5	8	DCL36HAR	DAS1-34HAR	DIS1-34HAR	DIS2-32HAR	DIS4-28HAR
38 3/16	40 3/8	2	1/8	7.5	15	12	---	DAS1-36HAR	DIS1-36HAR	DIS2-34HAR	DIS4-30HAR
40 3/16	42 3/8	2	1/8	7.5	15	12	---	---	---	DIS2-36HAR	DIS4-32HAR
42 3/16	44 3/8	2	1/8	7.5	15	12	---	---	---	---	DIS4-34HAR
44 3/16	46 3/8	2	1/8	7.5	15	12	---	---	---	---	DIS4-36HAR

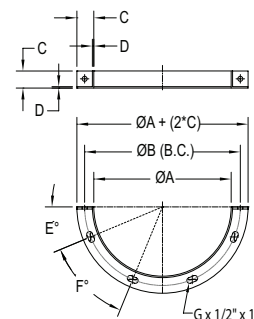
Material options (angle): - Ø5 to Ø10 = 304, Ø11 to Ø44 = 439

### Half Angle Ring (HAR) continued

Used for supporting and guiding the chimney on horizontal runs. See installation instructions for spacing. Effective Length = 0"

**Included:**

For DCL, DAS1, DIS1, DIS2, DIS4, and DIS3Z: One (1) Half Angle Ring (HAR) only.  
Hardware for connection to structure is not included (by others).



ØA (I.D.) (in)	ØB (B.C.) (in)	C (Total Length) (in)	D (in)	E°	F°	G (# holes per half)	Product Code
							DIS3Z (3" Insulated)
11 1/8	12 3/4	1 1/4	1/8	30	60	3	DIS3Z-5HAR
12 3/16	13 13/16	1 1/2	1/8	22.5	45	4	DIS3Z-6HAR
13 3/16	15	1 1/2	1/8	22.5	45	4	DIS3Z-7HAR
14 3/16	16	1 1/2	1/8	22.5	45	4	DIS3Z-8HAR
15 3/16	17	1 1/2	1/8	22.5	45	4	DIS3Z-9HAR
16 3/16	18	1 1/2	1/8	22.5	45	4	DIS3Z-10HAR
17 3/16	19	1 1/2	1/8	22.5	45	4	DIS3Z-11HAR
18 3/16	19 3/4	1 1/2	1/8	22.5	45	4	DIS3Z-12HAR
19 3/16	20 3/4	1 1/2	1/8	15	30	6	DIS3Z-13HAR
20 3/16	21 3/4	1 1/2	1/8	15	30	6	DIS3Z-14HAR
22 3/16	23 3/4	1 1/2	1/8	15	30	6	DIS3Z-16HAR
24 3/16	25 3/4	1 1/2	1/8	15	30	6	DIS3Z-18HAR
26 3/16	28 3/8	2	1/8	11.25	22.5	8	DIS3Z-20HAR
28 3/16	30 3/8	2	1/8	11.25	22.5	8	DIS3Z-22HAR
30 3/16	32 3/8	2	1/8	11.25	22.5	8	DIS3Z-24HAR
32 3/16	34 3/8	2	1/8	11.25	22.5	8	DIS3Z-26HAR
34 3/16	36 3/8	2	1/8	11.25	22.5	8	DIS3Z-28HAR
36 3/16	38 3/8	2	1/8	11.25	22.5	8	DIS3Z-30HAR
38 3/16	40 3/8	2	1/8	7.5	15	12	DIS3Z-32HAR
40 3/16	42 3/8	2	1/8	7.5	15	12	DIS3Z-34HAR
42 3/16	44 3/8	2	1/8	7.5	15	12	DIS3Z-36HAR

**Material options (angle):** - Ø5 to Ø10 = 304, Ø11 to Ø44 = 439



## Length Anchor Plate (APL)

Used for supporting the duct on vertical or horizontal runs. Cannot be used as fixed supports because the anchor plates are free to move on the longitudinal axis of the length. For thermal expansion consideration and fixed support, use an Anchor Plate (AP). It is a single wall part, but for the DuraStack Pro Series, use the Outer Band (BSE) as the outer wall. The square opening of the frame must be a minimum of O.D. + 1/2" or a maximum of O.D. + 2 1/4".

Must not be in contact with combustible materials.

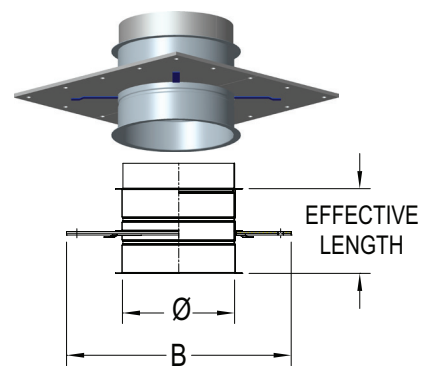
**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).

**For DAS1:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).

**For DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).

**For DIS3Z:** One Locking Inner "V" Band (BSI) and one Centering Flue Extension (PR-C0794) and one Locking Outer Band (BSE)



Ø (in.)	Effective Length (in)	DCL (Single Wall) - DAS1 (1" Air Insulated) - DIS1 (1" Wool Insulated)				DIS2 (2" Wool Insulated)		DIS4 (4" Wool Insulated)		DIS3Z (3" Insulated)	
		B (in)	Product Code			B (in)	Product Code	B (in)	Product Code	B (in)	Product Code
			DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)		DIS2 (2" Insulated)		DIS4 (4" Insulated)		DIS3Z (3" Insulated)
5 to 36	6	Ø + 6	DCLØAPL	DAS1-ØAPL	DIS1-ØAPL	Ø + 8	DIS2-ØAPL	Ø + 12	DIS4-ØAPL	Ø + 10	DIS3Z-ØAPL

**Material options (inner):** 304, 316

**Flow resistance:**

Ø5" to Ø16": K = 0.4 (eff. length [ft] / Ø [in])

Ø18" to Ø36": K = 0.3 (eff. length [ft] / Ø [in])

For Engine and Turbine Exhausts.: K = 0.25 (eff. length [ft] / Ø [in])

## Heavy Duty Wall Support (WSHD)

Used for supporting the vent in vertical runs and to provide a fixed point for thermal expansion consideration. It can maintain a clearance to the wall from 1 1/2" to 10" by adjusting the extendable braces. See instruction manual for required specifications. Effective Length = 0".

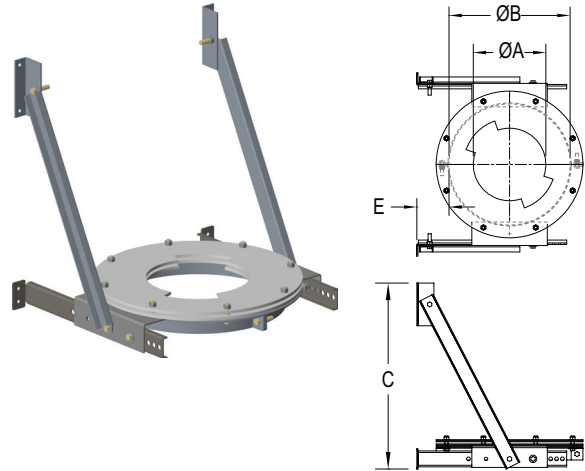
**Included:**

**For DCL:** Four (4) clamps ring, two (2) struts, two (2) adjustable struts, two (2) small wall brackets, two (2) brackets, and hardware included. Hardware for connection to structure are not included (by others).

**For DAS1:** Four (4) clamps ring, two (2) struts, two (2) adjustable struts, two (2) small wall brackets, two (2) brackets, two (2) Half Outer Band (DBSE), and hardware included. Hardware for connection to structure are not included (by others).

**For DIS1, DIS2, and DIS4:** Four (4) clamps ring, two (2) struts, two (2) adjustable struts, two (2) small wall brackets, two (2) brackets, two (2) Half Outer Band (DBSE) with two (2) 3" insulation band, and hardware included. Hardware for connection to structure is not included (by others).

**For DIS3Z:** Four (4) clamps ring, two (2) struts, two (2) adjustable struts, two (2) small wall brackets, two (2) brackets, and hardware included. Hardware for connection to structure are not included (by others).



ØA - Clamp Dia. (in.)	ØB - Inside FAR Dia. (in.)	DCL (Single Wall) - DAS1 (1" Air Insulated) - DIS1 (1" Wool Insulated)						
		C - Height (in.)		E - Clearance from building to the outer wall (in.)		Product Code		
		MIN	MAX	MIN	MAX	DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)
5 1/2	7 1/8	13 13/16	19 1/16	1 1/4	10	DCL5WSHD	DAS1-5WSHD	DIS1-5WSHD
6 1/2	8 1/8	14 7/32	19 19/32	1 1/4	10	DCL6WSHD	DAS1-6WSHD	DIS1-6WSHD
7 1/2	9 1/8	14 5/8	20 3/32	1 1/4	10	DCL7WSHD	DAS1-7WSHD	DIS1-7WSHD
8 1/2	10 1/8	15 3/32	20 3/4	1 1/4	10	DCL8WSHD	DAS1-8WSHD	DIS1-8WSHD
9 1/2	11 1/8	15 1/2	21 1/4	1 1/4	10	DCL9WSHD	DAS1-9WSHD	DIS1-9WSHD
10 1/2	12 3/16	15 29/32	21 21/32	1 1/2	10	DCL10WSHD	DAS1-10WSHD	DIS1-10WSHD
11 1/2	13 3/16	16 5/16	22 1/8	1 1/2	10	DCL11WSHD	DAS1-11WSHD	DIS1-11WSHD
12 1/2	14 3/16	16 25/32	22 3/4	1 1/2	10	DCL12WSHD	DAS1-12WSHD	DIS1-12WSHD
13 1/2	15 3/16	17 3/16	23 7/32	1 1/2	10	DCL13WSHD	DAS1-13WSHD	DIS1-13WSHD
14 1/2	16 3/16	17 19/32	23 11/16	1 1/2	10	DCL14WSHD	DAS1-14WSHD	DIS1-14WSHD
16 1/2	18 3/16	18 13/32	24 5/8	1 1/2	10	DCL16WSHD	DAS1-16WSHD	DIS1-16WSHD
18 1/2	20 3/16	19 9/32	25 11/16	1 1/2	10	DCL18WSHD	DAS1-18WSHD	DIS1-18WSHD
20 1/2	22 3/16	20 3/32	26 19/32	1 1/2	10	DCL20WSHD	DAS1-20WSHD	DIS1-20WSHD
22 1/2	24 3/16	20 31/32	27 5/8	1 1/2	10	DCL22WSHD	DAS1-22WSHD	DIS1-22WSHD
24 1/2	26 3/16	21 25/32	28 1/4	2	10	DCL24WSHD	DAS1-24WSHD	DIS1-24WSHD
26 1/2	28 3/16	22 21/32	29 1/4	2	10	DCL26WSHD	DAS1-26WSHD	DIS1-26WSHD
28 1/2	30 3/16	23 15/32	30 1/8	2	10	DCL28WSHD	DAS1-28WSHD	DIS1-28WSHD
30 1/2	32 3/16	24 11/32	31 1/8	2	10	DCL30WSHD	DAS1-30WSHD	DIS1-30WSHD
32 1/2	34 3/16	25 1/8	31 31/32	2	10	DCL32WSHD	DAS1-32WSHD	DIS1-32WSHD
34 1/2	36 3/16	25 15/16	32 13/16	2	10	DCL34WSHD	DAS1-34WSHD	DIS1-34WSHD
36 1/2	38 3/16	26 13/16	33 13/16	2	10	DCL36WSHD	DAS1-36WSHD	DIS1-36WSHD

**Material options (plates):** 439, Galvanized

## Heavy Duty Wall Support (WSHD) continued

Used for supporting the vent in vertical runs and to provide a fixed point for thermal expansion consideration. It can maintain a clearance to the wall from 1 1/2" to 10" by adjusting the extendable braces. See instruction manual for required specifications.  
Effective Length = 0".

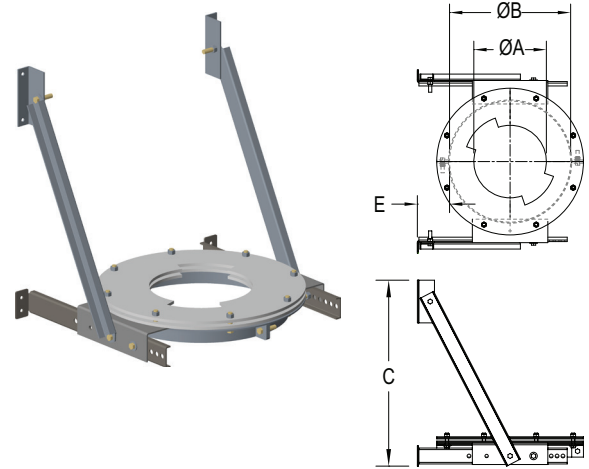
**Included:**

**For DCL:** Four (4) clamps ring, two (2) struts, two (2) adjustable struts, two (2) small wall brackets, two (2) brackets, and hardware included. Hardware for connection to structure are not included (by others).

**For DAS1:** Four (4) clamps ring, two (2) struts, two (2) adjustable struts, two (2) small wall brackets, two (2) brackets, two (2) Half Outer Band (DBSE), and hardware included. Hardware for connection to structure are not included (by others).

**For DIS1, DIS2, and DIS4:** Four (4) clamps ring, two (2) struts, two (2) adjustable struts, two (2) small wall brackets, two (2) brackets, two (2) Half Outer Band (DBSE) with two (2) 3" insulation band, and hardware included. Hardware for connection to structure is not included (by others).

**For DIS3Z:** Four (4) clamps ring, two (2) struts, two (2) adjustable struts, two (2) small wall brackets, two (2) brackets, and hardware included. Hardware for connection to structure are not included (by others).



ØA - Clamp Dia. (in.)	ØB - Inside FAR Dia. (in.)	DIS2 (2" Wool Insulated)						ØB - Inside FAR Dia. (in.)	DIS4 (4" Wool Insulated)					
		C - Height (in.)		E - Clearance from building to the outer wall (in.)		Product Code	C - Height (in.)		E - Clearance from building to the outer wall (in.)		Product Code			
		MIN	MAX	MIN	MAX		DIS2 (2" Insulated)		MIN	MAX		MIN	MAX	DIS4 (4" Insulated)
5 1/2	9 1/8	14 5/8	20 3/32	1 1/4	10	DIS2-5WSHD	13 3/16	16 5/16	22 1/8	1 1/2	10	DIS4-5WSHD		
6 1/2	10 1/8	15 3/32	20 3/4	1 1/4	10	DIS2-6WSHD	14 3/16	16 25/32	22 3/4	1 1/2	10	DIS4-6WSHD		
7 1/2	11 1/8	15 1/2	21 1/4	1 1/4	10	DIS2-7WSHD	15 3/16	17 3/16	23 7/32	1 1/2	10	DIS4-7WSHD		
8 1/2	12 3/16	15 29/32	21 21/32	1 1/2	10	DIS2-8WSHD	16 3/16	17 19/32	23 11/16	1 1/2	10	DIS4-8WSHD		
9 1/2	13 3/16	16 5/16	22 1/8	1 1/2	10	DIS2-9WSHD	17 3/16	18	24 5/32	1 1/2	10	DIS4-9WSHD		
10 1/2	14 3/16	16 25/32	22 3/4	1 1/2	10	DIS2-10WSHD	18 3/16	18 13/32	24 5/8	1 1/2	10	DIS4-10WSHD		
11 1/2	15 3/16	17 3/16	23 7/32	1 1/2	10	DIS2-11WSHD	19 3/16	18 7/8	25 7/32	1 1/2	10	DIS4-11WSHD		
12 1/2	16 3/16	17 19/32	23 11/16	1 1/2	10	DIS2-12WSHD	20 3/16	19 9/32	25 11/16	1 1/2	10	DIS4-12WSHD		
13 1/2	17 3/16	18	24 5/32	1 1/2	10	DIS2-13WSHD	21 3/16	19 11/16	26 1/8	1 1/2	10	DIS4-13WSHD		
14 1/2	18 3/16	18 13/32	24 5/8	1 1/2	10	DIS2-14WSHD	22 3/16	20 3/32	26 19/32	1 1/2	10	DIS4-14WSHD		
16 1/2	20 3/16	19 9/32	25 11/16	1 1/2	10	DIS2-16WSHD	24 3/16	20 31/32	27 5/8	1 1/2	10	DIS4-16WSHD		
18 1/2	22 3/16	20 3/32	26 19/32	1 1/2	10	DIS2-18WSHD	26 3/16	21 25/32	28 1/4	2	10	DIS4-18WSHD		
20 1/2	24 3/16	20 31/32	27 5/8	1 1/2	10	DIS2-20WSHD	28 3/16	22 21/32	29 1/4	2	10	DIS4-20WSHD		
22 1/2	26 3/16	21 25/32	28 1/4	2	10	DIS2-22WSHD	30 3/16	23 15/32	30 1/8	2	10	DIS4-22WSHD		
24 1/2	28 3/16	22 21/32	29 1/4	2	10	DIS2-24WSHD	32 3/16	24 11/32	31 1/8	2	10	DIS4-24WSHD		
26 1/2	30 3/16	23 15/32	30 1/8	2	10	DIS2-26WSHD	34 3/16	25 1/8	31 31/32	2	10	DIS4-26WSHD		
28 1/2	32 3/16	24 11/32	31 1/8	2	10	DIS2-28WSHD	36 3/16	25 15/16	32 13/16	2	10	DIS4-28WSHD		
30 1/2	34 3/16	25 1/8	31 31/32	2	10	DIS2-30WSHD	38 3/16	26 13/16	33 13/16	2	10	DIS4-30WSHD		
32 1/2	36 3/16	25 15/16	32 13/16	2	10	DIS2-32WSHD	40 3/16	27 5/8	34 21/32	2	10	DIS4-32WSHD		
34 1/2	38 3/16	26 13/16	33 13/16	2	10	DIS2-34WSHD	42 3/16	28 1/2	35 5/8	2	10	DIS4-34WSHD		
36 1/2	40 3/16	27 5/8	34 21/32	2	10	DIS2-36WSHD	44 3/16	29 5/16	36 15/32	2	10	DIS4-36WSHD		

**Material options (plates):** 439, Galvanized

### Heavy Duty Wall Support (WSHD) continued

Used for supporting the vent in vertical runs and to provide a fixed point for thermal expansion consideration. It can maintain a clearance to the wall from 1 1/2" to 10" by adjusting the extendable braces. See instruction manual for required specifications. Effective Length = 0".

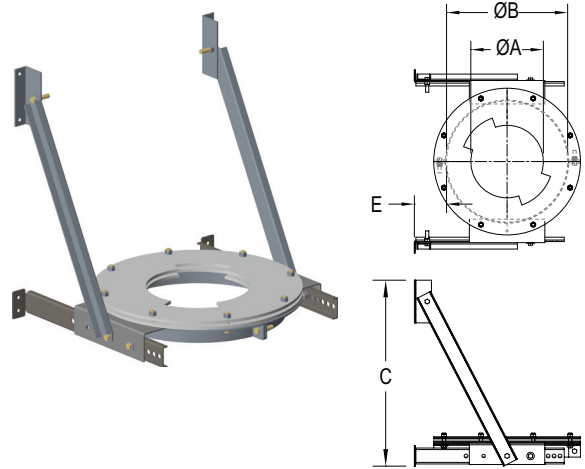
**Included:**

**For DCL:** Four (4) clamps ring, two (2) struts, two (2) adjustable struts, two (2) small wall brackets, two (2) brackets, and hardware included. Hardware for connection to structure are not included (by others).

**For DAS1:** Four (4) clamps ring, two (2) struts, two (2) adjustable struts, two (2) small wall brackets, two (2) brackets, two (2) Half Outer Band (DBSE), and hardware included. Hardware for connection to structure are not included (by others).

**For DIS1, DIS2, and DIS4:** Four (4) clamps ring, two (2) struts, two (2) adjustable struts, two (2) small wall brackets, two (2) brackets, two (2) Half Outer Band (DBSE) with two (2) 3" insulation band, and hardware included. Hardware for connection to structure is not included (by others).

**For DIS3Z:** Four (4) clamps ring, two (2) struts, two (2) adjustable struts, two (2) small wall brackets, two (2) brackets, and hardware included. Hardware for connection to structure are not included (by others).



ØA - Clamp Dia. (in.)	ØB - Inside FAR Dia. (in.)	DIS3Z (3" Wool Insulated)				Product Code
		C - Height (in.)		E - Clearance from building to the outer wall (in.)		
		MIN	MAX	MIN	MAX	
5 1/2	11 1/8	20	23 1/8	2	10	DIS3Z-5WSHD
6 1/2	12 3/16	20 1/2	23 5/8	2	10	DIS3Z-6WSHD
7 1/2	13 3/16	21	24 1/8	2	10	DIS3Z-7WSHD
8 1/2	14 3/16	21 1/2	24 1/8	2	10	DIS3Z-8WSHD
9 1/2	15 3/16	22	25 1/4	2	10	DIS3Z-9WSHD
10 1/2	16 3/16	23 1/4	26 1/2	2	10	DIS3Z-10WSHD
11 1/2	17 3/16	23 3/4	26 1/2	2	10	DIS3Z-11WSHD
12 1/2	18 3/16	24 1/4	27 5/8	2	10	DIS3Z-12WSHD
13 1/2	19 3/16	24	27 1/4	2	10	DIS3Z-13WSHD
14 1/2	20 3/16	24 1/2	27 5/8	2	10	DIS3Z-14WSHD
16 1/2	22 3/16	25 1/2	28 1/2	2	10	DIS3Z-16WSHD
18 1/2	24 3/16	26 1/2	29 1/2	2	10	DIS3Z-18WSHD
20 1/2	26 3/16	27 1/2	30	2 1/2	10	DIS3Z-20WSHD
22 1/2	28 3/16	28 1/2	31	2 1/2	10	DIS3Z-22WSHD
24 1/2	30 3/16	29 1/2	32	2 1/2	10	DIS3Z-24WSHD
26 1/2	32 3/16	30 1/2	33	2 1/2	10	DIS3Z-26WSHD
28 1/2	34 3/16	32 1/4	34 1/2	2 1/2	10	DIS3Z-28WSHD
30 1/2	36 3/16	33 1/4	35 3/8	2 1/2	10	DIS3Z-30WSHD
32 1/2	38 3/16	33 1/2	35 5/8	2 1/2	10	DIS3Z-32WSHD
34 1/2	40 3/16	34 1/2	36 1/2	2 1/2	10	DIS3Z-34WSHD
36 1/2	42 3/16	35 1/2	37 1/2	2 1/2	10	DIS3Z-36WSHD

**Material options (plates):** 439, Galvanized



### Heavy Duty Wall Guide (WGHD)

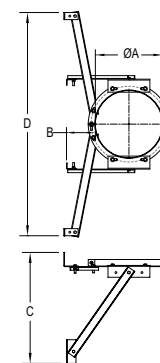
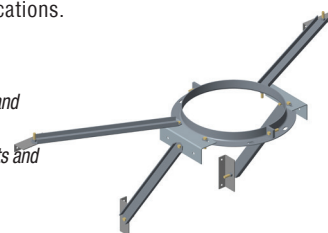
Used for guiding in vertical installation attached to the wall. It can maintain a clearance to the outer wall from 2 1/2" to 10" by adjusting the braces. See instruction manual for required specifications. Effective Length = 0".

**Included:**

**For DCL, DAS1, DIS1, DIS2, and DIS4:** One (1) Full Angle Ring (FAR), four (4) struts, four (4) wall brackets, and hardware included.

**For DIS3Z:** One (1) FAR, four (4) struts, two (2) small wall brackets, two (2) big wall brackets, two (2) brackets and hardware included.

Hardware for connection to structure is not included (by others).



ØA (I.D. of HAR) (in)	ØB - Clearance		C - Total Length		D Total Width (in)		Product Code				
	MIN (in)	MAX (in)	MIN (in)	MAX (in)	MIN (in)	MAX (in)	DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)
5 1/16	2	10	13 5/16	18 5/32	28 15/16	38 3/4	DCL5WGHD	---	---	---	---
6 3/32	2	10	13 23/32	18 11/16	30 9/16	40 11/16	DCL6WGHD	---	---	---	---
7 1/8	2	10	14 1/8	19 3/16	32 5/16	42 3/4	DCL7WGHD	DAS1-5WGHD	DIS1-5WGHD	---	---
8 1/8	2	10	14 17/32	19 11/16	33 15/16	44 5/8	DCL8WGHD	DAS1-6WGHD	DIS1-6WGHD	---	---
9 1/8	2	10	14 15/16	20 3/16	35 5/8	46 9/16	DCL9WGHD	DAS1-7WGHD	DIS1-7WGHD	DIS2-5WGHD	---
10 1/8	2	10	15 13/32	20 13/16	37 9/16	48 9/16	DCL10WGHD	DAS1-8WGHD	DIS1-8WGHD	DIS2-6WGHD	---
11 1/8	2	10	15 13/16	21 5/16	39 7/16	50 11/16	DCL11WGHD	DAS1-9WGHD	DIS1-9WGHD	DIS2-7WGHD	---
12 3/16	2	10	16 7/32	21 25/32	47 1/8	54 7/8	DCL12WGHD	DAS1-10WGHD	DIS1-10WGHD	DIS2-8WGHD	---
13 3/16	2	10	16 5/8	22 1/4	49 3/8	57 1/8	DCL13WGHD	DAS1-11WGHD	DIS1-11WGHD	DIS2-9WGHD	DIS4-5WGHD
14 3/16	2	10	17 3/32	22 27/32	51 3/4	59 1/2	DCL14WGHD	DAS1-12WGHD	DIS1-12WGHD	DIS2-10WGHD	DIS4-6WGHD
15 3/16	2	10	17 1/2	23 5/16	53 3/4	61 1/2	---	DAS1-13WGHD	DIS1-13WGHD	DIS2-11WGHD	DIS4-7WGHD
16 3/16	2	10	17 29/32	23 25/32	55 3/4	63 9/16	DCL16WGHD	DAS1-14WGHD	DIS1-14WGHD	DIS2-12WGHD	DIS4-8WGHD
17 3/16	2	10	18 5/16	24 1/4	57 13/16	65 5/8	---	---	---	DIS2-13WGHD	DIS4-9WGHD
18 3/16	2	10	18 23/32	24 23/32	59 1/2	67 7/16	DCL18WGHD	DAS1-16WGHD	DIS1-16WGHD	DIS2-14WGHD	DIS4-10WGHD
19 3/16	2	10	19 3/16	25 5/16	60 11/16	69 7/8	---	---	---	---	DIS4-11WGHD
20 3/16	2	10	19 19/32	25 3/4	62 5/8	71 7/8	DCL20WGHD	DAS1-18WGHD	DIS1-18WGHD	DIS2-16WGHD	DIS4-12WGHD
21 3/16	2	10	20	26 3/16	64 5/8	73 15/16	---	---	---	---	DIS4-13WGHD
22 3/16	2	10	20 13/32	26 21/32	66 9/16	75 15/16	DCL22WGHD	DAS1-20WGHD	DIS1-20WGHD	DIS2-18WGHD	DIS4-14WGHD
24 3/16	2	10	21 9/32	27 11/16	70 7/8	80 1/4	DCL24WGHD	DAS1-22WGHD	DIS1-22WGHD	DIS2-20WGHD	DIS4-16WGHD
26 3/16	2 1/2	10	22 3/32	28 9/32	74 5/16	84 3/16	DCL26WGHD	DAS1-24WGHD	DIS1-24WGHD	DIS2-22WGHD	DIS4-18WGHD
28 3/16	2 1/2	10	22 31/32	29 9/32	78 5/8	88 1/2	DCL28WGHD	DAS1-26WGHD	DIS1-26WGHD	DIS2-24WGHD	DIS4-20WGHD
30 3/16	2 1/2	10	23 25/32	30 1/8	82 1/2	92 7/16	DCL30WGHD	DAS1-28WGHD	DIS1-28WGHD	DIS2-26WGHD	DIS4-22WGHD
32 3/16	2 1/2	10	24 21/32	31 1/8	86 5/8	96 5/8	DCL32WGHD	DAS1-30WGHD	DIS1-30WGHD	DIS2-28WGHD	DIS4-24WGHD
34 3/16	2 1/2	10	25 7/16	31 31/32	90 5/8	100 11/16	DCL34WGHD	DAS1-32WGHD	DIS1-32WGHD	DIS2-30WGHD	DIS4-26WGHD
36 3/16	2 1/2	10	26 1/4	32 13/16	94 7/16	104 9/16	DCL36WGHD	DAS1-34WGHD	DIS1-34WGHD	DIS2-32WGHD	DIS4-28WGHD
38 3/16	2 1/2	10	27 1/8	33 25/32	96 5/8	107 13/16	---	DAS1-36WGHD	DIS1-36WGHD	DIS2-34WGHD	DIS4-30WGHD
40 3/16	2 1/2	10	27 15/16	34 5/8	100 7/16	111 11/16	---	---	---	DIS2-36WGHD	DIS4-32WGHD
42 3/16	2 1/2	10	28 13/16	35 19/32	104 5/8	115 7/8	---	---	---	---	DIS4-34WGHD
44 3/16	2 1/2	10	29 5/8	36 13/32	108 3/8	119 3/4	---	---	---	---	DIS4-36WGHD

**Material options (Struts):** 439, Galvanized

### Heavy Duty Wall Guide (WGHD) continued

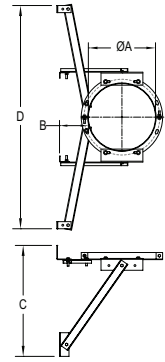
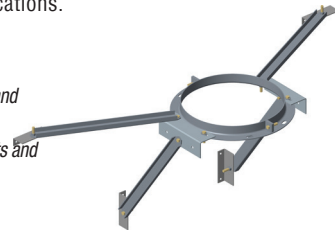
Used for guiding in vertical installation attached to the wall. It can maintain a clearance to the outer wall from 2 1/2" to 10" by adjusting the braces. See instruction manual for required specifications. Effective Length = 0".

**Included:**

**For DCL, DAS1, DIS1, DIS2, and DIS4:** One (1) Full Angle Ring (FAR), four (4) struts, four (4) wall brackets, and hardware included.

**For DIS3Z:** One (1) FAR, four (4) struts, two (2) small wall brackets, two (2) big wall brackets, two (2) brackets and hardware included.

Hardware for connection to structure is not included (by others).



ØA (I. D. of HAR) (in)	ØB - Clearance		C - Total Length		D Total Width (in)		Product Code
	MIN (in)	MAX (in)	MIN (in)	MAX (in)	MIN (in)	MAX (in)	DIS3Z (3" Insulated)
11 1/8	1 3/4	10	18 9/16	24 3/16	12 9/16	18 3/16	DIS3Z-5WGHD
12 3/16	2	10	18 15/16	24 9/16	15 5/8	21 1/4	DIS3Z-6WGHD
13 3/16	2	10	19 5/16	25 1/16	16 3/16	21 15/16	DIS3Z-7WGHD
14 3/16	2	10	19 7/8	25 11/16	16 15/16	22 3/4	DIS3Z-8WGHD
15 3/16	2	10	20 1/4	26 1/8	17 1/2	23 3/8	DIS3Z-9WGHD
16 3/16	2	10	20 5/8	26 5/8	18 1/16	24 1/16	DIS3Z-10WGHD
17 3/16	2	10	21	27 1/16	18 5/8	24 11/16	DIS3Z-11WGHD
18 3/16	2	10	21 7/16	27 1/2	19 3/16	25 5/16	DIS3Z-12WGHD
19 3/16	2	10	22	28 1/8	18 11/16	24 13/16	DIS3Z-13WGHD
20 3/16	2	10	22 3/8	28 9/16	19 3/16	25 3/8	DIS3Z-14WGHD
22 3/16	2	10	23 1/8	29 1/2	20 3/16	26 9/16	DIS3Z-16WGHD
24 3/16	2	10	24 1/16	30 1/2	21 3/8	27 7/8	DIS3Z-18WGHD
26 3/16	2 1/2	10	24 13/16	31 1/8	21 9/16	27 7/8	DIS3Z-20WGHD
28 3/16	2 1/2	10	25 3/4	32 1/8	22 3/4	29 1/16	DIS3Z-22WGHD
30 3/16	2 1/2	10	26 1/2	33	23 11/16	30 1/8	DIS3Z-24WGHD
32 3/16	2 1/2	10	27 7/16	34	24 13/16	31 5/16	DIS3Z-26WGHD
34 3/16	2 1/2	10	28 3/16	34 13/16	25 3/4	32 3/8	DIS3Z-28WGHD
36 3/16	2 1/2	10	28 15/16	35 5/8	26 11/16	33 3/8	DIS3Z-30WGHD
38 3/16	2 1/2	10	29 15/16	36 5/8	26 9/16	33 1/4	DIS3Z-32WGHD
40 3/16	2 1/2	10	30 11/16	37 1/2	27 7/16	33 1/4	DIS3Z-34WGHD
42 3/16	2 1/2	10	31 5/8	38 7/16	28 1/2	35 3/8	DIS3Z-36WGHD

**Material options (Struts):** 439, Galvanized

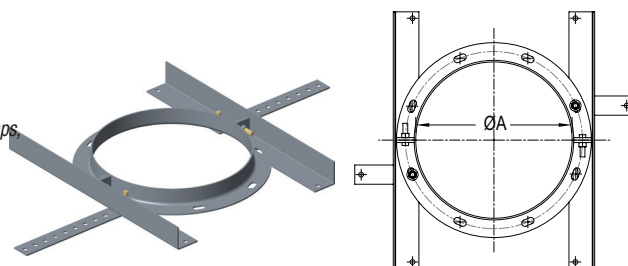
## Heavy Duty Floor Guide

Used for guiding in vertical installation when passing through a floor or roof. Maximum square opening dimensions is duct I.D. + 4". Must not be in contact with combustible. Effective Length = 0".

**Included:**

For DCL, DAS1, DIS1, DIS2, DIS4, and DIS3Z: One (1) Full Angle Ring (FAR), two (2) struts, two (2) straps and hardware included.

Hardware for connection to structure is not included (by others).



ØA (I.D. of HAR) (in)	Product Code					ØA (I.D. of HAR) (in)	Product Code
	DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)		
5 1/16	DCL5FGHD	---	---	---	---	11 1/8	DIS3Z-5FGHD
6 3/32	DCL6FGHD	---	---	---	---	12 3/16	DIS3Z-6FGHD
7 1/8	DCL7FGHD	DAS1-5FGHD	DIS1-5FGHD	---	---	13 3/16	DIS3Z-7FGHD
8 1/8	DCL8FGHD	DAS1-6FGHD	DIS1-6FGHD	---	---	14 3/16	DIS3Z-8FGHD
9 1/8	DCL9FGHD	DAS1-7FGHD	DIS1-7FGHD	DIS2-5FGHD	---	15 3/16	DIS3Z-9FGHD
10 1/8	DCL10FGHD	DAS1-8FGHD	DIS1-8FGHD	DIS2-6FGHD	---	16 3/16	DIS3Z-10FGHD
11 1/8	DCL11FGHD	DAS1-9FGHD	DIS1-9FGHD	DIS2-7FGHD	---	17 3/16	DIS3Z-11FGHD
12 3/16	DCL12FGHD	DAS1-10FGHD	DIS1-10FGHD	DIS2-8FGHD	---	18 3/16	DIS3Z-12FGHD
13 3/16	DCL13FGHD	DAS1-11FGHD	DIS1-11FGHD	DIS2-9FGHD	DIS4-5FGHD	19 3/16	DIS3Z-13FGHD
14 3/16	DCL14FGHD	DAS1-12FGHD	DIS1-12FGHD	DIS2-10FGHD	DIS4-6FGHD	20 3/16	DIS3Z-14FGHD
15 3/16	---	DAS1-13FGHD	DIS1-13FGHD	DIS2-11FGHD	DIS4-7FGHD	22 3/16	DIS3Z-16FGHD
16 3/16	DCL16FGHD	DAS1-14FGHD	DIS1-14FGHD	DIS2-12FGHD	DIS4-8FGHD	24 3/16	DIS3Z-18FGHD
17 3/16	---	---	---	DIS2-13FGHD	DIS4-9FGHD	26 3/16	DIS3Z-20FGHD
18 3/16	DCL18FGHD	DAS1-16FGHD	DIS1-16FGHD	DIS2-14FGHD	DIS4-10FGHD	28 3/16	DIS3Z-22FGHD
19 3/16	---	---	---	---	DIS4-11FGHD	30 3/16	DIS3Z-24FGHD
20 3/16	DCL20FGHD	DAS1-18FGHD	DIS1-18FGHD	DIS2-16FGHD	DIS4-12FGHD	32 3/16	DIS3Z-26FGHD
21 3/16	---	---	---	---	DIS4-13FGHD	34 3/16	DIS3Z-28FGHD
22 3/16	DCL22FGHD	DAS1-20FGHD	DIS1-20FGHD	DIS2-18FGHD	DIS4-14FGHD	36 3/16	DIS3Z-30FGHD
24 3/16	DCL24FGHD	DAS1-22FGHD	DIS1-22FGHD	DIS2-20FGHD	DIS4-16FGHD	38 3/16	DIS3Z-32FGHD
26 3/16	DCL26FGHD	DAS1-24FGHD	DIS1-24FGHD	DIS2-22FGHD	DIS4-18FGHD	40 3/16	DIS3Z-34FGHD
28 3/16	DCL28FGHD	DAS1-26FGHD	DIS1-26FGHD	DIS2-24FGHD	DIS4-20FGHD	42 3/16	DIS3Z-36FGHD
30 3/16	DCL30FGHD	DAS1-28FGHD	DIS1-28FGHD	DIS2-26FGHD	DIS4-22FGHD	---	---
32 3/16	DCL32FGHD	DAS1-30FGHD	DIS1-30FGHD	DIS2-28FGHD	DIS4-24FGHD	---	---
34 3/16	DCL34FGHD	DAS1-32FGHD	DIS1-32FGHD	DIS2-30FGHD	DIS4-26FGHD	---	---
36 3/16	DCL36FGHD	DAS1-34FGHD	DIS1-34FGHD	DIS2-32FGHD	DIS4-28FGHD	---	---
38 3/16	---	DAS1-36FGHD	DIS1-36FGHD	DIS2-34FGHD	DIS4-30FGHD	---	---
40 3/16	---	---	---	DIS2-36FGHD	DIS4-32FGHD	---	---
42 3/16	---	---	---	---	DIS4-34FGHD	---	---
44 3/16	---	---	---	---	DIS4-36FGHD	---	---

**Material options (Struts):** Galvanized

## Guy Ring (GR)

Used for attaching guys to the chimney stack. The Clamp rings have holes at 30° apart (12 holes). It is installed at the flange to flange joint of two sections of pipe. See installation instructions for correct location. Tensioners or anchors not included (by others). Effective Length = 0".

**NOTE: NOT AVAILABLE FOR MODEL DIS3Z**

**Included:**

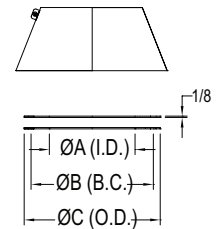
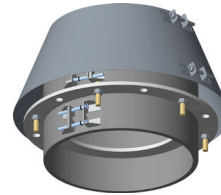
**For DCL:** Four (4) half Clamp Ring, one (1) Storm Collar (SC), and hardware included.

**For DAS1:** Four (4) half Clamp Ring, one (1) Storm Collar (SC), two (2) half outer band (DBSE), and hardware included.

**For DIS1, DIS2 and DIS4:** Four (4) half Clamp Ring, one (1) Storm Collar (SC), two (2) half outer band (DBSE) with two (2) 3" insulation band, and hardware included.

Tensioners, anchors and hardware for connection to structure are not included (by others).

**For DIS1, DIS2 and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) collar kit on the inner liner with a special locking band (BS), two half casing, insulation pad, and hardware.



Ø (in.)	ØA (I.D.) (in.)	DCL (Single Wall)			DAS1 (1" Air Insulated) - DIS1 (1" Wool Insulated)				DIS2 (2" Wool Insulated)			DIS4 (4" Wool Insulated)		
		ØB (B.C.) (in)	ØC (O.D.) (in)	Product Code	ØB (B.C.) (in)	ØC (O.D.) (in)	Product Code		ØB (B.C.) (in)	ØC (O.D.) (in)	Product Code	ØB (B.C.) (in)	ØC (O.D.) (in)	Product Code
							DAS1 (1" Air Insulated)	DIS1 (1" Wool Insulated)						
Ø5 to Ø36	Ø + 1/2	Ø + 1 5/8	Ø + 3 1/2	DCL-ØGR	Ø + 3 5/8	Ø + 5 1/2	DAS1-5GR	DIS1-ØGR	Ø + 5 5/8	Ø + 7 1/2	DIS2-ØGR	Ø + 9 5/8	Ø + 11 1/2	DIS4-ØGR

Material options (plates): Galvanized

## Thimbles

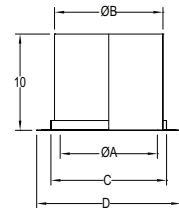
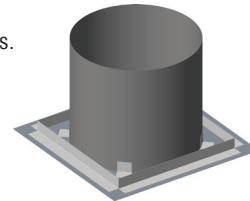
### Roof/Floor Thimble (RT)

Used when pipe passes through a combustible roof / floor structure to reduce clearances to combustibles. The RT allows for pipe expansion and contraction the roof. See installation instructions for hole opening for the right clearance of each diameter and other specifications. Effective Length = 0".

**NOTE: NOT AVAILABLE FOR MODEL DCL AND DIS3Z**

**Included:**

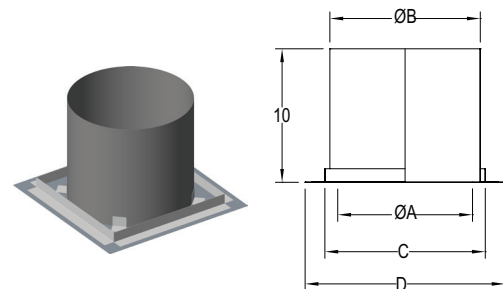
**For DAS1, DIS1, DIS2, and DIS4:** One (1) Roof / Floor Thimble only



Ø (in.)	Total Length (in.)	DAS1 (1" Air Insulated)					DIS1 (1" Wool Insulated)				
		ØA - Plate's Hole (in.)	ØB - Wall (in)	C - Roof Square opening dimensions (in)	D - Square Plate dimension (in)	Product Code	ØA - Plate's Hole (in.)	ØB - Wall (in)	C - Roof Square opening dimensions (in)	D - Square Plate dimension (in)	Product Code
5	10	8 1/4	12 1/4	15	18	DAS1-5RT	8 1/4	8 1/2	9	12	DIS1-5RT
6		9 1/4	13 1/4	16	19	DAS1-6RT	9 1/4	9 1/2	10	13	DIS1-6RT
7		10 1/4	15 1/4	19	22	DAS1-7RT	10 1/4	12 1/4	13	16	DIS1-7RT
8		11 1/4	16 1/4	20	23	DAS1-8RT	11 1/4	13 1/4	14	17	DIS1-8RT
9		12 1/4	17 1/4	21	24	DAS1-9RT	12 1/4	14 1/4	15	18	DIS1-9RT
10		13 1/4	18 1/4	22	25	DAS1-10RT	13 1/4	15 1/4	16	19	DIS1-10RT
11		14 1/4	19 1/4	23	26	DAS1-11RT	14 1/4	16 1/4	17	20	DIS1-11RT
12		15 1/4	20 1/4	24	27	DAS1-12RT	15 1/4	17 1/4	18	21	DIS1-12RT
13		16 1/4	21 1/4	25	28	DAS1-13RT	16 1/4	18 1/4	19	22	DIS1-13RT
14		17 1/4	22 1/4	26	29	DAS1-14RT	17 1/4	19 1/4	20	23	DIS1-14RT
16		19 1/4	25 1/4	30	33	DAS1-16RT	19 1/4	22 1/4	24	27	DIS1-16RT
18		21 1/4	27 1/4	32	35	DAS1-18RT	21 1/4	24 1/4	26	29	DIS1-18RT
20		23 1/4	29 1/4	34	37	DAS1-20RT	23 1/4	26 1/4	28	31	DIS1-20RT
22		25 1/4	31 1/4	36	39	DAS1-22RT	25 1/4	28 1/4	30	33	DIS1-22RT
24		27 1/4	34 1/4	40	43	DAS1-24RT	27 1/4	31 1/4	34	37	DIS1-24RT
26		29 1/4	36 1/4	42	45	DAS1-26RT	29 1/4	33 1/4	36	39	DIS1-26RT
28		31 1/4	38 1/4	44	47	DAS1-28RT	31 1/4	35 1/4	38	41	DIS1-28RT
30		33 1/4	40 1/4	46	49	DAS1-30RT	33 1/4	37 1/4	40	43	DIS1-30RT
32	35 1/4	43 1/4	50	53	DAS1-32RT	35 1/4	40 1/4	44	47	DIS1-32RT	
34	37 1/4	45 1/4	52	55	DAS1-34RT	37 1/4	42 1/4	46	49	DIS1-34RT	
36	39 1/4	47 1/4	54	57	DAS1-36RT	39 1/4	44 1/4	48	51	DIS1-36RT	

### Roof/Floor Thimble (RT) continued

Used when pipe passes through a combustible roof / floor structure to reduce clearances to combustibles. The RT allows for pipe expansion and contraction the roof. See installation instructions for hole opening for the right clearance of each diameter and other specifications. Effective Length = 0".



**NOTE: NOT AVAILABLE FOR MODEL DCL AND DIS3Z**

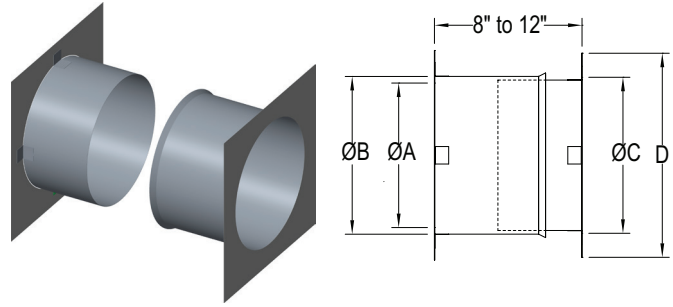
**Included:**  
For DAS1, DIS1, DIS2, and DIS4: One (1) Roof / Floor Thimble only

Ø (in.)	Total Length (in.)	DIS2 (2" Wool Insulated)					DIS4 (4" Wool Insulated)				
		ØA - Plate's Hole (in.)	ØB - Wall (in)	C - Roof Square opening dimensions (in)	D - Square Plate dimension (in)	Product Code	ØA - Plate's Hole (in.)	ØB - Wall (in)	C - Roof Square opening dimensions (in)	D - Square Plate dimension (in)	Product Code
5	10	10 1/4	10 1/2	11	14	DIS2-5RT	14 1/4	14 1/2	15	18	DIS4-5RT
6		11 1/4	11 1/2	12	15	DIS2-6RT	15 1/4	15 1/2	16	19	DIS4-6RT
7		12 1/4	12 1/2	13	16	DIS2-7RT	16 1/4	16 1/2	17	20	DIS4-7RT
8		13 1/4	13 1/2	14	17	DIS2-8RT	17 1/4	17 1/2	18	21	DIS4-8RT
9		14 1/4	14 1/2	15	18	DIS2-9RT	18 1/4	18 1/2	19	22	DIS4-9RT
10		15 1/4	15 1/2	16	19	DIS2-10RT	19 1/4	19 1/2	20	23	DIS4-10RT
11		16 1/4	16 1/2	17	20	DIS2-11RT	20 1/4	20 1/2	21	24	DIS4-11RT
12		17 1/4	17 1/2	18	21	DIS2-12RT	21 1/4	21 1/2	22	25	DIS4-12RT
13		18 1/4	18 1/2	19	22	DIS2-13RT	22 1/4	22 1/2	23	26	DIS4-13RT
14		19 1/4	19 1/2	20	23	DIS2-14RT	23 1/4	23 1/2	24	27	DIS4-14RT
16		21 1/4	23 1/4	24	27	DIS2-16RT	25 1/4	27 1/4	28	31	DIS4-16RT
18		23 1/4	25 1/4	26	29	DIS2-18RT	27 1/4	29 1/4	30	33	DIS4-18RT
20		25 1/4	27 1/4	28	31	DIS2-20RT	29 1/4	31 1/4	32	35	DIS4-20RT
22		27 1/4	29 1/4	30	33	DIS2-22RT	31 1/4	33 1/4	34	37	DIS4-22RT
24		29 1/4	31 1/4	32	35	DIS2-24RT	33 1/4	35 1/4	36	39	DIS4-24RT
26		31 1/4	33 1/4	34	37	DIS2-26RT	35 1/4	37 1/4	38	41	DIS4-26RT
28		33 1/4	35 1/4	36	39	DIS2-28RT	37 1/4	39 1/4	40	43	DIS4-28RT
30		35 1/4	37 1/4	38	41	DIS2-30RT	39 1/4	41 1/4	42	45	DIS4-30RT
32	37 1/4	40 1/4	42	45	DIS2-32RT	41 1/4	44 1/4	46	49	DIS4-32RT	
34	39 1/4	42 1/4	44	47	DIS2-34RT	43 1/4	46 1/4	48	51	DIS4-34RT	
36	41 1/4	44 1/4	46	49	DIS2-36RT	45 1/4	48 1/4	50	53	DIS4-36RT	

**Material options (all):** Galvalume

### Wall Thimble (WT)

Used when pipe passes through a combustible wall structure to reduce clearances to combustibles. The WT allows for pipe expansion and contraction of the roof. The part consists of a wall thimble female half and a male wall thimble half that slide in each other to adjust wall thickness from 8" to 12". See installation instructions for hole opening for the right clearance for each models and other specifications. Effective Length = 0".



**NOTE: NOT AVAILABLE FOR MODEL DCL AND DIS3Z**

**Included:**

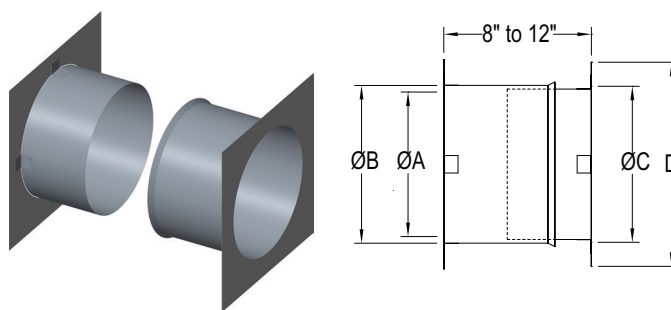
**For DAS1, DIS1, DIS2, and DIS4:** One (1) wall thimble female half, and one (1) wall thimble male half.

Ø (in.)	Total Length (in.)	DAS1 (1" Air Insulated)					DIS1 (1" Wool Insulated)				
		ØA - Plate's Hole (in.)	ØB - Female Wall (in)	C - Male Wall (in)	D - Square Plate dimension (in)	Product Code	ØA - Plate's Hole (in.)	ØB - Female Wall (in)	C - Male Wall (in)	D - Square Plate dimension (in)	Product Code
5	8" to 12"	8 1/4	11	10 29/32	18	DAS1-5WT	8 1/4	8 1/2	8 13/32	12	DIS1-5WT
6		9 1/4	12	11 29/32	19	DAS1-6WT	9 1/4	9 1/2	9 13/32	13	DIS1-6WT
7		10 1/4	14	13 29/32	22	DAS1-7WT	10 1/4	11	10 29/32	16	DIS1-7WT
8		11 1/4	15	14 29/32	23	DAS1-8WT	11 1/4	12	11 29/32	17	DIS1-8WT
9		12 1/4	16	15 29/32	24	DAS1-9WT	12 1/4	13	12 29/32	18	DIS1-9WT
10		13 1/4	17	16 29/32	25	DAS1-10WT	13 1/4	14	13 29/32	19	DIS1-10WT
11		14 1/4	18	17 29/32	26	DAS1-11WT	14 1/4	15	14 29/32	20	DIS1-11WT
12		15 1/4	19	18 29/32	27	DAS1-12WT	15 1/4	16	15 29/32	21	DIS1-12WT
13		16 1/4	20	19 29/32	28	DAS1-13WT	16 1/4	17	16 29/32	22	DIS1-13WT
14		17 1/4	21	20 29/32	29	DAS1-14WT	17 1/4	18	17 29/32	23	DIS1-14WT
16		19 1/4	24	23 29/32	33	DAS1-16WT	19 1/4	21	20 29/32	27	DIS1-16WT
18		21 1/4	26	25 29/32	35	DAS1-18WT	21 1/4	23	22 29/32	29	DIS1-18WT
20		23 1/4	28	27 29/32	37	DAS1-20WT	23 1/4	25	24 29/32	31	DIS1-20WT
22		25 1/4	30	29 29/32	39	DAS1-22WT	25 1/4	27	26 29/32	33	DIS1-22WT
24		27 1/4	33	32 29/32	43	DAS1-24WT	27 1/4	30	29 29/32	37	DIS1-24WT
26		29 1/4	35	34 29/32	45	DAS1-26WT	29 1/4	32	31 29/32	39	DIS1-26WT
28		31 1/4	37	36 29/32	47	DAS1-28WT	31 1/4	34	33 29/32	41	DIS1-28WT
30		33 1/4	39	38 29/32	49	DAS1-30WT	33 1/4	36	35 29/32	43	DIS1-30WT
32	35 1/4	42	41 29/32	53	DAS1-32WT	35 1/4	39	38 29/32	47	DIS1-32WT	
34	37 1/4	44	43 29/32	55	DAS1-34WT	37 1/4	41	40 29/32	49	DIS1-34WT	
36	39 1/4	46	45 29/32	57	DAS1-36WT	39 1/4	43	42 29/32	51	DIS1-36WT	

**Material options (all):** Galvalume

### Wall Thimble (WT) continued

Used when pipe passes through a combustible wall structure to reduce clearances to combustibles. The WT allows for pipe expansion and contraction of the roof. The part consists of a wall thimble female half and a male wall thimble half that slide in each other to adjust wall thickness from 8" to 12". See installation instructions for hole opening for the right clearance for each models and other specifications. Effective Length = 0".



**NOTE: NOT AVAILABLE FOR MODEL DCL AND DIS3Z**

**Included:**

**For DAS1, DIS1, DIS2, and DIS4:** One (1) wall thimble female half, and one (1) wall thimble male half.

Ø (in.)	Total Length (in.)	DIS2 (2" Wool Insulated)					DIS4 (4" Wool Insulated)				
		ØA - Plate's Hole (in.)	ØB - Female Wall (in)	C - Male Wall (in)	D - Square Plate dimension (in)	Product Code	ØA - Plate's Hole (in.)	ØB - Female Wall (in)	C - Male Wall (in)	D - Square Plate dimension (in)	Product Code
5	8" to 12"	10 1/4	10 1/4	10 5/32	14	DIS2-5WT	14 1/4	14 1/4	14 5/32	18	DIS4-5WT
6		11 1/4	11 1/4	11 5/32	15	DIS2-6WT	15 1/4	15 1/4	15 5/32	19	DIS4-6WT
7		12 1/4	12 1/4	12 5/32	16	DIS2-7WT	16 1/4	16 1/4	16 5/32	20	DIS4-7WT
8		13 1/4	13 1/4	13 5/32	17	DIS2-8WT	17 1/4	17 1/4	17 5/32	21	DIS4-8WT
9		14 1/4	14 1/4	14 5/32	18	DIS2-9WT	18 1/4	18 1/4	18 5/32	22	DIS4-9WT
10		15 1/4	15 1/4	15 5/32	19	DIS2-10WT	19 1/4	19 1/4	19 5/32	23	DIS4-10WT
11		16 1/4	16 1/4	16 5/32	20	DIS2-11WT	20 1/4	20 1/4	20 5/32	24	DIS4-11WT
12		17 1/4	17 1/4	17 5/32	21	DIS2-12WT	21 1/4	21 1/4	21 5/32	25	DIS4-12WT
13		18 1/4	18 1/4	18 5/32	22	DIS2-13WT	22 1/4	22 1/4	22 5/32	26	DIS4-13WT
14		19 1/4	19 1/4	19 5/32	23	DIS2-14WT	23 1/4	23 1/4	23 5/32	27	DIS4-14WT
16		21 1/4	22	21 29/32	27	DIS2-16WT	25 1/4	26	25 29/32	31	DIS4-16WT
18		23 1/4	24	23 29/32	29	DIS2-18WT	27 1/4	28	27 29/32	33	DIS4-18WT
20		25 1/4	26	25 29/32	31	DIS2-20WT	29 1/4	30	29 29/32	35	DIS4-20WT
22		27 1/4	28	27 29/32	33	DIS2-22WT	31 1/4	32	31 29/32	37	DIS4-22WT
24		29 1/4	30	29 29/32	35	DIS2-24WT	33 1/4	34	33 29/32	39	DIS4-24WT
26		31 1/4	32	31 29/32	37	DIS2-26WT	35 1/4	36	35 29/32	41	DIS4-26WT
28		33 1/4	34	33 29/32	39	DIS2-28WT	37 1/4	38	37 29/32	43	DIS4-28WT
30		35 1/4	36	35 29/32	41	DIS2-30WT	39 1/4	40	39 29/32	45	DIS4-30WT
32	37 1/4	39	38 29/32	45	DIS2-32WT	41 1/4	43	42 29/32	49	DIS4-32WT	
34	39 1/4	41	40 29/32	47	DIS2-34WT	43 1/4	45	44 29/32	51	DIS4-34WT	
36	41 1/4	43	42 29/32	49	DIS2-36WT	45 1/4	47	46 29/32	53	DIS4-36WT	

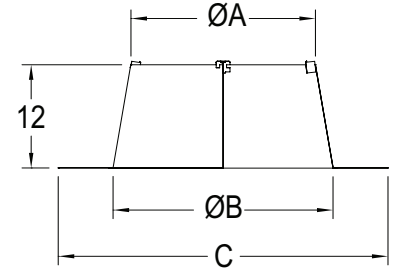
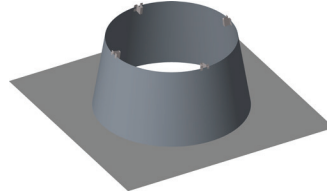
**Material options (all):** Galvalume

## Flashing (F)

Used in conjunction with Storm Collar (SC), included, for weatherization at the roof. There are 1" spacers on the top of the flashing to make sure there is an air gap between the Flashing and the outer wall of a section.

**Included:**

For DCL, DAS1, DIS1, DIS2, DIS4, and DIS3Z: One (1) Storm Collar (SC), and hardware included.



Ø (in.)	Total Length (in.)	DCL (Single Wall)				DAS1 (1" Air Insulated)				DIS1 (1" Wool Insulated)			
		ØA (in.)	ØB (in)	C (in)	Product Code	ØA (in.)	ØB (in)	C (in)	Product Code	ØA (in.)	ØB (in)	C (in)	Product Code
5	12	7 3/16	11 3/16	16	DCL5F	9 3/16	21 1/8	34	DAS1-5F	9 3/16	15 1/8	28	DIS1-5F
6		8 3/16	11 3/16	16	DCL6F	10 3/16	22 1/8	35	DAS1-6F	10 3/16	16 1/8	29	DIS1-6F
7		9 3/16	14	26	DCL7F	11 3/16	23 1/8	36	DAS1-7F	11 3/16	17 1/8	30	DIS1-7F
8		10 3/16	14	26	DCL8F	12 3/16	24 1/8	37	DAS1-8F	12 3/16	18 1/8	31	DIS1-8F
9		11 3/16	14	26	DCL9F	13 3/16	25 1/8	38	DAS1-9F	13 3/16	19 1/8	32	DIS1-9F
10		12 3/16	16 1/8	28	DCL10F	14 3/16	28 1/8	41	DAS1-10F	14 3/16	22 1/8	35	DIS1-10F
11		13 3/16	17 5/8	30	DCL11F	15 3/16	29 1/8	42	DAS1-11F	15 3/16	23 1/8	36	DIS1-11F
12		14 3/16	17 5/8	30	DCL12F	16 3/16	30 1/8	43	DAS1-12F	16 3/16	24 1/8	37	DIS1-12F
13		15 3/16	20	31	DCL13F	17 3/16	31 1/8	44	DAS1-13F	17 3/16	25 1/8	38	DIS1-13F
14		16 3/16	20	31	DCL14F	18 3/16	32 1/8	45	DAS1-14F	18 3/16	26 1/8	39	DIS1-14F
16		18 3/16	22 1/8	34	DCL16F	20 3/16	34 1/8	47	DAS1-16F	20 3/16	28 1/8	41	DIS1-16F
18		20 3/16	24 1/8	36	DCL18F	22 3/16	38 1/8	51	DAS1-18F	22 3/16	32 1/8	45	DIS1-18F
20		22 3/16	26 1/8	38	DCL20F	24 3/16	40 1/8	53	DAS1-20F	24 3/16	34 1/8	47	DIS1-20F
22		24 3/16	28 1/8	40	DCL22F	26 3/16	42 1/8	55	DAS1-22F	26 3/16	36 1/8	49	DIS1-22F
24		26 3/16	30 1/8	42	DCL24F	28 3/16	44 1/8	57	DAS1-24F	28 3/16	38 1/8	51	DIS1-24F
26		28 3/16	32 1/8	44	DCL26F	30 3/16	48 1/8	61	DAS1-26F	30 3/16	42 1/8	55	DIS1-26F
28		30 3/16	38 1/8	46	DCL28F	32 3/16	50 1/8	63	DAS1-28F	32 3/16	44 1/8	57	DIS1-28F
30		32 3/16	40 1/8	48	DCL30F	34 3/16	52 1/8	65	DAS1-30F	34 3/16	46 1/8	59	DIS1-30F
32		34 3/16	42 1/8	50	DCL32F	36 3/16	54 1/8	67	DAS1-32F	36 3/16	48 1/8	61	DIS1-32F
34		36 3/16	44 1/8	52	DCL34F	38 3/16	58 1/8	71	DAS1-34F	38 3/16	52 1/8	65	DIS1-34F
36	38 3/16	46 1/8	54	DCL36F	40 3/16	60 1/8	73	DAS1-36F	40 3/16	54 1/8	67	DIS1-36F	

Material options (all): 304, Galvalume

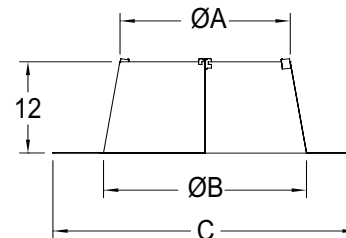
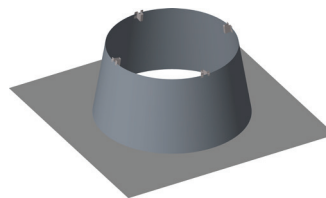


### Flashing (F) continued

Used in conjunction with Storm Collar (SC), included, for weatherization at the roof. There are 1" spacers on the top of the flashing to make sure there is an air gap between the Flashing and the outer wall of a section.

**Included:**

For DCL, DAS1, DIS1, DIS2, DIS4, and DIS3Z: One (1) Storm Collar (SC), and hardware included.



Ø (in.)	Total Length (in.)	DIS2 (2" Wool Insulated)				DIS4 (4" Wool Insulated)				DIS3Z (3" Insulated)			
		ØA (in.)	ØB (in)	C (in)	Product Code	ØA (in.)	ØB (in)	C (in)	Product Code	ØA (in.)	ØB (in)	C (in)	Product Code
5	12	11 3/16	17 1/8	30	DIS2-5F	15 3/16	21 1/8	34	DIS4-5F	13 3/16	17 5/8	30	DIS3Z-5F
6		12 3/16	18 1/8	31	DIS2-6F	16 3/16	22 1/8	35	DIS4-6F	14 3/16	17 5/8	30	DIS3Z-6F
7		13 3/16	19 1/8	32	DIS2-7F	17 3/16	23 1/8	36	DIS4-7F	15 3/16	20	31	DIS3Z-7F
8		14 3/16	20 1/8	33	DIS2-8F	18 3/16	24 1/8	37	DIS4-8F	16 3/16	20	31	DIS3Z-8F
9		15 3/16	21 1/8	34	DIS2-9F	19 3/16	25 1/8	38	DIS4-9F	17 3/16	22 1/8	34	DIS3Z-9F
10		16 3/16	22 1/8	35	DIS2-10F	20 3/16	26 1/8	39	DIS4-10F	18 3/16	22 1/8	34	DIS3Z-10F
11		17 3/16	23 1/8	36	DIS2-11F	21 3/16	27 1/8	40	DIS4-11F	19 3/16	24 1/8	36	DIS3Z-11F
12		18 3/16	24 1/8	37	DIS2-12F	22 3/16	28 1/8	41	DIS4-12F	20 3/16	24 1/8	36	DIS3Z-12F
13		19 3/16	25 1/8	38	DIS2-13F	23 3/16	29 1/8	42	DIS4-13F	21 3/16	26 1/8	38	DIS3Z-13F
14		20 3/16	26 1/8	39	DIS2-14F	24 3/16	30 1/8	43	DIS4-14F	22 3/16	26 1/8	38	DIS3Z-14F
16		22 3/16	28 1/8	41	DIS2-16F	26 3/16	32 1/8	45	DIS4-16F	24 3/16	28 1/8	40	DIS3Z-16F
18		24 3/16	30 1/8	43	DIS2-18F	28 3/16	34 1/8	47	DIS4-18F	26 3/16	30 1/8	42	DIS3Z-18F
20		26 3/16	32 1/8	45	DIS2-20F	30 3/16	36 1/8	49	DIS4-20F	28 3/16	32 1/8	44	DIS3Z-20F
22		28 3/16	36 1/8	49	DIS2-22F	32 3/16	40 1/8	53	DIS4-22F	30 3/16	34 1/8	46	DIS3Z-22F
24		30 3/16	38 1/8	51	DIS2-24F	34 3/16	42 1/8	55	DIS4-24F	32 3/16	36 1/8	48	DIS3Z-24F
26		32 3/16	40 1/8	53	DIS2-26F	36 3/16	44 1/8	57	DIS4-26F	34 3/16	38 1/8	50	DIS3Z-26F
28		34 3/16	42 1/8	55	DIS2-28F	38 3/16	46 1/8	59	DIS4-28F	36 3/16	40 1/8	52	DIS3Z-28F
30		36 3/16	44 1/8	57	DIS2-30F	40 3/16	48 1/8	61	DIS4-30F	38 3/16	42 1/8	54	DIS3Z-30F
32		38 3/16	46 1/8	59	DIS2-32F	42 3/16	50 1/8	63	DIS4-32F	40 3/16	44 1/8	56	DIS3Z-32F
34		40 3/16	48 1/8	61	DIS2-34F	44 3/16	52 1/8	65	DIS4-34F	42 3/16	46 1/8	58	DIS3Z-34F
36	42 3/16	50 1/8	63	DIS2-36F	46 3/16	54 1/8	67	DIS4-36F	44 3/16	48 3/8	60	DIS3Z-36F	

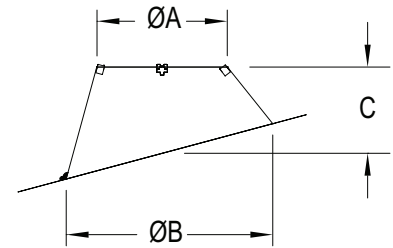
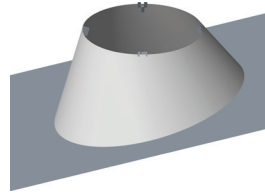
Material options (all): 304, Galvalume

### Adjustable Flashing (F30)

Used in conjunction with Storm Collar (SC), included, for weatherization at the roof. There are 1" spacers on the top of the flashing to make sure there is an air gap between the Flashing and the outer wall of a section. 5° to 30° (1/12 to 7/12) pitch.

**Included:**

For DCL, DAS1, DIS1, DIS2, DIS4, and DIS3Z: One (1) Storm Collar (SC), and hardware included.



Ø (in.)	DCL (Single Wall)				DAS1 (1" Air Insulated)				DIS1 (1" Wool Insulated)			
	ØA (in.)	ØB (in.)	C - Total height (in.)	Product Code	ØA (in.)	ØB (in.)	C - Total height (in.)	Product Code	ØA (in.)	ØB (in.)	C - Total height (in.)	Product Code
5	7 7/16	18 5/8	12 7/32	DCL5F30	9 3/16	21 3/4	12	DAS1-5F30	9 3/16	15 17/32	12	DIS1-5F30
6	8 15/32	19 25/32	12 7/32	DCL6F30	10 3/16	22 25/32	12	DAS1-6F30	10 3/16	16 9/16	12	DIS1-6F30
7	9 1/2	20 15/16	12 7/32	DCL7F30	11 3/16	23 13/16	12	DAS1-7F30	11 3/16	17 19/32	12	DIS1-7F30
8	10 9/16	22 3/32	12 5/16	DCL8F30	12 3/16	24 27/32	12	DAS1-8F30	12 3/16	18 5/8	12	DIS1-8F30
9	11 19/32	23 3/8	12 7/16	DCL9F30	13 3/16	25 7/8	12	DAS1-9F30	13 3/16	19 21/32	12	DIS1-9F30
10	12 5/8	24 1/2	12 7/16	DCL10F30	14 3/16	29	12	DAS1-10F30	14 3/16	22 25/32	12	DIS1-10F30
11	13 21/32	25 17/32	12 17/32	DCL11F30	15 3/16	30 1/32	12	DAS1-11F30	15 3/16	23 13/16	12	DIS1-11F30
12	14 11/16	26 5/8	12 7/16	DCL12F30	16 3/16	31 1/16	12	DAS1-12F30	16 3/16	24 27/32	12	DIS1-12F30
13	15 23/32	27 5/8	12 7/16	DCL13F30	17 3/16	32 3/32	12	DAS1-13F30	17 3/16	25 7/8	12	DIS1-13F30
14	16 3/4	28 7/8	12 7/16	DCL14F30	18 3/16	33 1/8	12	DAS1-14F30	18 3/16	26 29/32	12	DIS1-14F30
16	18 27/32	31	12 7/16	DCL16F30	20 3/16	35 3/16	12	DAS1-16F30	20 3/16	29	12	DIS1-16F30
18	20 29/32	33 1/8	12 7/16	DCL18F30	22 3/16	39 11/32	12 3/8	DAS1-18F30	22 3/16	33 1/8	12	DIS1-18F30
20	22 31/32	35 1/4	12 7/16	DCL20F30	24 3/16	41 13/32	12 29/32	DAS1-20F30	24 3/16	35 3/16	12	DIS1-20F30
22	25 1/32	37 3/8	12 7/16	DCL22F30	26 3/16	43 15/32	13 5/32	DAS1-22F30	26 3/16	37 9/32	12	DIS1-22F30
24	27 1/8	39 1/2	12 7/16	DCL24F30	28 3/16	45 9/16	13 13/32	DAS1-24F30	28 3/16	39 11/32	12	DIS1-24F30
26	29 3/16	41 5/8	12 7/16	DCL26F30	30 3/16	49 11/16	14 29/32	DAS1-26F30	30 3/16	43 15/32	12	DIS1-26F30
28	31 1/4	43 3/4	12 7/16	DCL28F30	32 3/16	51 3/4	15 5/32	DAS1-28F30	32 3/16	45 9/16	12	DIS1-28F30
30	33 5/16	45 29/32	12 7/16	DCL30F30	34 3/16	53 27/32	15 7/16	DAS1-30F30	34 3/16	47 5/8	12	DIS1-30F30
32	35 13/32	48 11/32	12 15/16	DCL32F30	36 3/16	55 29/32	15 11/16	DAS1-32F30	36 3/16	49 11/16	12	DIS1-32F30
34	37 15/32	50 13/16	13 15/32	DCL34F30	38 3/16	60 1/32	17 3/16	DAS1-34F30	38 3/16	53 27/32	13 15/32	DIS1-34F30
36	39 17/32	53 31/32	13 15/32	DCL36F30	40 3/16	62 1/8	17 7/16	DAS1-36F30	40 3/16	55 29/32	13 3/4	DIS1-36F30

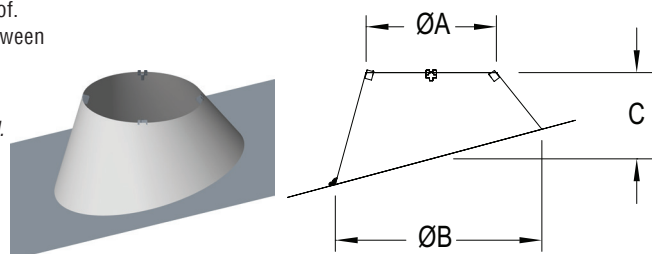
Material options (collar): 304, Galvalume

### Adjustable Flashing (F30) continued

Used in conjunction with Storm Collar (SC), included, for weatherization at the roof. There are 1" spacers on the top of the flashing to make sure there is an air gap between the Flashing and the outer wall of a section. 5° to 30° (1/12 to 7/12) pitch.

**Included:**

For DCL, DAS1, DIS1, DIS2, DIS4, and DIS3Z: One (1) Storm Collar (SC), and hardware included.



Ø (in.)	DIS2 (2" Wool Insulated)				DIS4 (4" Wool Insulated)				DIS3Z (3" Insulated)			
	ØA (in.)	ØB (in)	C - Total height (in)	Product Code	ØA (in.)	ØB (in)	C - Total height (in)	Product Code	ØA (in.)	ØB (in)	C - Total height (in)	Product Code
5	11 3/16	17 19/32	12 7/16	DIS2-5F30	15 3/16	21 3/4	12 7/16	DIS4-5F30	13 21/32	25 17/32	12 17/32	DIS3Z-5F30
6	12 3/16	18 5/8	12 7/16	DIS2-6F30	16 3/16	22 25/32	12 7/16	DIS4-6F30	14 11/16	26 17/32	12 7/16	DIS3Z-6F30
7	13 3/16	19 21/32	12 7/16	DIS2-7F30	17 3/16	23 13/16	12 7/16	DIS4-7F30	15 23/32	27 5/8	12 7/16	DIS3Z-7F30
8	14 3/16	20 23/32	12 7/16	DIS2-8F30	18 3/16	24 27/32	12 7/16	DIS4-8F30	16 3/4	28 11/16	12 7/16	DIS3Z-8F30
9	15 3/16	21 3/4	12 7/16	DIS2-9F30	19 3/16	25 7/8	12 7/16	DIS4-9F30	17 25/32	29 25/32	12 7/16	DIS3Z-9F30
10	16 3/16	22 25/32	12 7/16	DIS2-10F30	20 3/16	26 29/32	12 7/16	DIS4-10F30	18 27/32	30 37/32	12 7/16	DIS3Z-10F30
11	17 3/16	23 13/16	12 7/16	DIS2-11F30	21 3/16	27 15/16	12 7/16	DIS4-11F30	19 7/8	31 15/16	12 7/16	DIS3Z-11F30
12	18 3/16	24 27/32	12 7/16	DIS2-12F30	22 3/16	29	12 7/16	DIS4-12F30	20 29/32	33	12 7/16	DIS3Z-12F30
13	19 3/16	25 7/8	12 7/16	DIS2-13F30	23 3/16	30 1/32	12 7/16	DIS4-13F30	21 15/16	34 3/32	12 7/16	DIS3Z-13F30
14	20 3/16	26 29/32	12 7/16	DIS2-14F30	24 3/16	31 1/16	12 7/16	DIS4-14F30	22 31/32	35 5/32	12 7/16	DIS3Z-14F30
16	22 3/16	29	12 7/16	DIS2-16F30	26 3/16	33 1/8	12 7/16	DIS4-16F30	25 1/32	37 9/32	12 7/16	DIS3Z-16F30
18	24 3/16	31 1/16	12 7/16	DIS2-18F30	28 3/16	35 3/16	12 7/16	DIS4-18F30	27 1/8	39 7/16	12 7/16	DIS3Z-18F30
20	26 3/16	33 1/8	12 7/16	DIS2-20F30	30 3/16	37 9/32	12 7/16	DIS4-20F30	29 3/16	41 19/32	12 7/16	DIS3Z-20F30
22	28 3/16	37 9/32	12 7/16	DIS2-22F30	32 3/16	41 13/32	12 7/16	DIS4-22F30	31 1/4	43 3/4	12 7/16	DIS3Z-22F30
24	30 3/16	39 11/32	12 7/16	DIS2-24F30	34 3/16	43 15/32	12 7/16	DIS4-24F30	33 5/16	45 29/32	12 7/16	DIS3Z-24F30
26	32 3/16	41 13/32	12 7/16	DIS2-26F30	36 3/16	45 9/16	12 7/16	DIS4-26F30	35 13/32	48 11/32	12 15/16	DIS3Z-26F30
28	34 3/16	43 15/32	12 7/16	DIS2-28F30	38 3/16	47 5/8	12 7/16	DIS4-28F30	37 17/32	50 13/16	13 15/32	DIS3Z-28F30
30	36 3/16	45 9/16	12 7/16	DIS2-30F30	40 3/16	49 11/16	14 7/32	DIS4-30F30	39 17/32	53 31/32	13 15/32	DIS3Z-30F30
32	38 3/16	47 5/8	12 7/16	DIS2-32F30	42 3/16	51 3/4	14 1/2	DIS4-32F30	41 19/32	55 13/32	13 31/32	DIS3Z-32F30
34	40 3/16	49 11/16	14 7/32	DIS2-34F30	44 3/16	53 27/32	14 3/4	DIS4-34F30	43 11/16	57 9/16	13 31/32	DIS3Z-34F30
36	42 3/16	51 3/4	14 3/8	DIS2-36F30	46 3/16	55 29/32	16 5/16	DIS4-36F30	45 3/4	60 3/16	13 31/32	DIS3Z-36F30

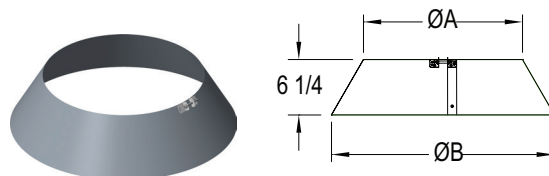
Material options (collar): 304, Galvalume

### Storm Collar (SC)

Used above the Flashing or the Adjustable Flashing for complete weatherization above the roof. To be sealed with outer joint sealant (S-375) (not included).

**Included:**

For DCL, DAS1, DIS1, DIS2, DIS4, and DIS3Z: Hardware for the collar.



Ø (in.)	Total Length (in.)	DCL (Single Wall)			DAS1 (1" Air Insulated) - DIS1 (1" Wool Insulated)			
		ØA (in.)	ØB (in)	Product Code	ØA (in.)	ØB (in)	Product Code	Product Code
5 to 36	6 1/4	Ø - 1/16	Ø + 7 3/16	DCLØSC	Ø + 1 15/16	Ø + 9 3/16	DAS1-ØSC	DIS1-ØSC

Ø (in.)	DIS2 (2" Wool Insulated)			DIS4 (4" Wool Insulated)			DIS3Z (3" Insulated)		
	ØA (in.)	ØB (in)	Product Code	ØA (in.)	ØB (in)	Product Code	ØA (in.)	ØB (in)	Product Code
5 to 36	Ø + 3 15/16	Ø + 11 3/16	DIS2-ØSC	Ø + 7 15/16	Ø + 15 3/16	DIS4-ØSC	Ø + 5 15/16	Ø + 13 3/16	DIS3Z-ØSC

Material options (all): 304, Galvalume

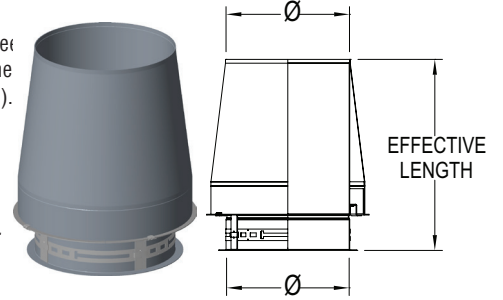
### Finishing Cone (FC)

Used at the top of the chimney and protects the chimney against water infiltration in the insulation between the inner and outer wall of the chimney. The inner flue is straight all the way. A Drain Tee Cap (DTC) at the base of the chimney or a Drain Length (DL) in the vertical run is required for use of a Finishing Cone (FC).

**NOTE: NOT AVAILABLE FOR MODEL DIS3Z**

**Included:**

- For DCL: One (1) Locking Inner "V" Band (BSI), and one (1) Centering Flue Extension (PR-C0794).
- For DAS1: One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), and one (1) Outer Band (BSE).
- For DIS1, DIS2, and DIS4: One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) 6" insulation band, and one (1) Outer Band (BSE).



Ø (in.)	Effective Length (in.)	Product Code				
		DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)
Ø5 to Ø9	12 1/2	DCLØFC	DAS1-ØFC	DIS1-ØFC	DIS2-ØFC	DIS4-ØFC
Ø10 to Ø14	16 1/2					
Ø16 to Ø22	20 1/2					
Ø24 to Ø28	24 1/2					
Ø30 to Ø34	28 1/2					
Ø36	32 1/2					

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:**

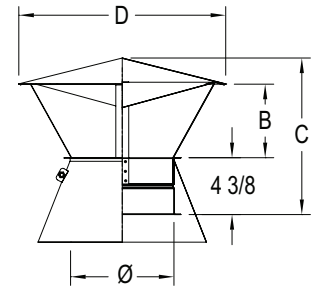
- Ø5" to Ø16": K = 0.4 (eff. length [ft] / Ø [in])
- Ø18" to Ø36": K = 0.3 (eff. length [ft] / Ø [in])
- For Engine and Turbine Exhausts: K = 0.25 (eff. length [ft] / Ø [in])

### Conic Rain Cap (CRC)

Used to provide the greatest degree of rain protection and it is a single wall part. For dable wall, a Closure Ring (CR) is provided to protects the insulated space between standard pipe inner and outer. Also available with bird screen (DCLCRCB).

**Included:**

- For DCL: One (1) Conic Rain Cap (CRC) only.
- For DAS1, DIS1, DIS2 and DIS4: One Closure Ring (CR).
- For DIS3Z: One Closure Ring (CR).



**Material options (Inner):** 304, 316  
**Flow resistance:** K = 0.5

Ø (in.)	B (in.)	C (in)	D (in)	Product Code					
				DCL (Single Wall)		DAS1 (1" Air Insulated)		DIS1 (1" Insulated)	
				Standard	With Bird Screen	Standard	With Bird Screen	Standard	With Bird Screen
5	5 1/16	11 1/2	16	DCL5CRC	DCL5CRCB	DAS1-5CRC	DAS1-5CRCB	DIS1-5CRC	DIS1-5CRCB
6	5 7/16	11 7/8	16	DCL6CRC	DCL6CRCB	DAS1-6CRC	DAS1-6CRCB	DIS1-6CRC	DIS1-6CRCB
7	5 3/4	12 1/8	16	DCL7CRC	DCL7CRCB	DAS1-7CRC	DAS1-7CRCB	DIS1-7CRC	DIS1-7CRCB
8	6	12 3/8	16	DCL8CRC	DCL8CRCB	DAS1-8CRC	DAS1-8CRCB	DIS1-8CRC	DIS1-8CRCB
9	5	12	19 7/8	DCL9CRC	DCL9CRCB	DAS1-9CRC	DAS1-9CRCB	DIS1-9CRC	DIS1-9CRCB
10	5 7/16	12 3/8	19 7/8	DCL10CRC	DCL10CRCB	DAS1-10CRC	DAS1-10CRCB	DIS1-10CRC	DIS1-10CRCB
11	5 13/16	12 3/4	19 7/8	DCL11CRC	DCL11CRCB	DAS1-11CRC	DAS1-11CRCB	DIS1-11CRC	DIS1-11CRCB
12	7 7/8	14 5/8	24	DCL12CRC	DCL12CRCB	DAS1-12CRC	DAS1-12CRCB	DIS1-12CRC	DIS1-12CRCB
13	8 1/8	14 7/8	24	DCL13CRC	DCL13CRCB	DAS1-13CRC	DAS1-13CRCB	DIS1-13CRC	DIS1-13CRCB
14	7	16 1/2	27 3/4	DCL14CRC	DCL14CRCB	DAS1-14CRC	DAS1-14CRCB	DIS1-14CRC	DIS1-14CRCB
16	7 3/4	17 1/4	27 3/4	DCL16CRC	DCL16CRCB	DAS1-16CRC	DAS1-16CRCB	DIS1-16CRC	DIS1-16CRCB
18	7 1/8	17 1/4	31 1/2	DCL18CRC	DCL18CRCB	DAS1-18CRC	DAS1-18CRCB	DIS1-18CRC	DIS1-18CRCB
20	7 7/8	18	31 1/2	DCL20CRC	DCL20CRCB	DAS1-20CRC	DAS1-20CRCB	DIS1-20CRC	DIS1-20CRCB
22	12 1/2	25 1/8	44	DCL22CRC	DCL22CRCB	DAS1-22CRC	DAS1-22CRCB	DIS1-22CRC	DIS1-22CRCB
24	12 7/8	25 1/2	44	DCL24CRC	DCL24CRCB	DAS1-24CRC	DAS1-24CRCB	DIS1-24CRC	DIS1-24CRCB
26	13 1/2	26 3/16	44	DCL26CRC	DCL26CRCB	DAS1-26CRC	DAS1-26CRCB	DIS1-26CRC	DIS1-26CRCB
28	17 1/4	30 7/8	56	DCL28CRC	DCL28CRCB	DAS1-28CRC	DAS1-28CRCB	DIS1-28CRC	DIS1-28CRCB
30	17 7/8	31 9/16	56	DCL30CRC	DCL30CRCB	DAS1-30CRC	DAS1-30CRCB	DIS1-30CRC	DIS1-30CRCB
32	17 1/4	31 1/4	60	DCL32CRC	DCL32CRCB	DAS1-32CRC	DAS1-32CRCB	DIS1-32CRC	DIS1-32CRCB
34	17 7/8	31 7/8	60	DCL34CRC	DCL34CRCB	DAS1-34CRC	DAS1-34CRCB	DIS1-34CRC	DIS1-34CRCB
36	18 1/2	32 1/2	60	DCL36CRC	DCL36CRCB	DAS1-36CRC	DAS1-36CRCB	DIS1-36CRC	DIS1-36CRCB

## Conic Rain Cap (CRC) continued

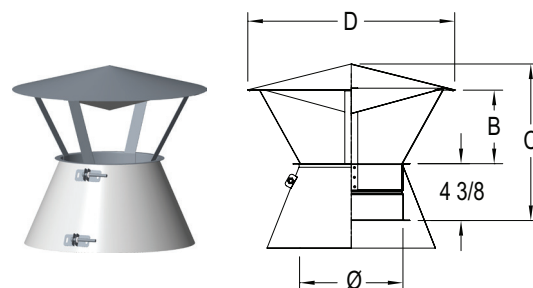
Used to provide the greatest degree of rain protection and it is a single wall part. For double wall, a Closure Ring (CR) is provided to protect the insulated space between standard pipe inner and outer. Also available with bird screen (DCLCRCB).

**Included:**

**For DCL:** One (1) Conic Rain Cap (CRC) only.

**For DAS1, DIS1, DIS2 and DIS4:** One Closure Ring (CR).

**For DIS3Z:** One Closure Ring (CR).



Ø (in.)	B (in.)	C (in)	D (in)	Product Code					
				DIS2 (2" Insulated)		DIS4 (4" Insulated)		DIS3Z (3" Insulated)	
				Standard	With Bird Screen	Standard	With Bird Screen	Standard	With Bird Screen
5	5 1/16	11 1/2	16	DIS2-5CRC	DIS2-5CRCB	DIS4-5CRC	DIS4-5CRCB	DIS3Z-5CRC	DIS3Z-5CRCB
6	5 7/16	11 7/8	16	DIS2-6CRC	DIS2-6CRCB	DIS4-6CRC	DIS4-6CRCB	DIS3Z-6CRC	DIS3Z-6CRCB
7	5 3/4	12 1/8	16	DIS2-7CRC	DIS2-7CRCB	DIS4-7CRC	DIS4-7CRCB	DIS3Z-7CRC	DIS3Z-7CRCB
8	6	12 3/8	16	DIS2-8CRC	DIS2-8CRCB	DIS4-8CRC	DIS4-8CRCB	DIS3Z-8CRC	DIS3Z-8CRCB
9	5	12	19 7/8	DIS2-9CRC	DIS2-9CRCB	DIS4-9CRC	DIS4-9CRCB	DIS3Z-9CRC	DIS3Z-9CRCB
10	5 7/16	12 3/8	19 7/8	DIS2-10CRC	DIS2-10CRCB	DIS4-10CRC	DIS4-10CRCB	DIS3Z-10CRC	DIS3Z-10CRCB
11	5 13/16	12 3/4	19 7/8	DIS2-11CRC	DIS2-11CRCB	DIS4-11CRC	DIS4-11CRCB	DIS3Z-11CRC	DIS3Z-11CRCB
12	7 7/8	14 5/8	24	DIS2-12CRC	DIS2-12CRCB	DIS4-12CRC	DIS4-12CRCB	DIS3Z-12CRC	DIS3Z-12CRCB
13	8 1/8	14 7/8	24	DIS2-13CRC	DIS2-13CRCB	DIS4-13CRC	DIS4-13CRCB	DIS3Z-13CRC	DIS3Z-13CRCB
14	7	16 1/2	27 3/4	DIS2-14CRC	DIS2-14CRCB	DIS4-14CRC	DIS4-14CRCB	DIS3Z-14CRC	DIS3Z-14CRCB
16	7 3/4	17 1/4	27 3/4	DIS2-16CRC	DIS2-16CRCB	DIS4-16CRC	DIS4-16CRCB	DIS3Z-16CRC	DIS3Z-16CRCB
18	7 1/8	17 1/4	31 1/2	DIS2-18CRC	DIS2-18CRCB	DIS4-18CRC	DIS4-18CRCB	DIS3Z-18CRC	DIS3Z-18CRCB
20	7 7/8	18	31 1/2	DIS2-20CRC	DIS2-20CRCB	DIS4-20CRC	DIS4-20CRCB	DIS3Z-20CRC	DIS3Z-20CRCB
22	12 1/2	25 1/8	44	DIS2-22CRC	DIS2-22CRCB	DIS4-22CRC	DIS4-22CRCB	DIS3Z-22CRC	DIS3Z-22CRCB
24	12 7/8	25 1/2	44	DIS2-24CRC	DIS2-24CRCB	DIS4-24CRC	DIS4-24CRCB	DIS3Z-24CRC	DIS3Z-24CRCB
26	13 1/2	26 3/16	44	DIS2-26CRC	DIS2-26CRCB	DIS4-26CRC	DIS4-26CRCB	DIS3Z-26CRC	DIS3Z-26CRCB
28	17 1/4	30 7/8	56	DIS2-28CRC	DIS2-28CRCB	DIS4-28CRC	DIS4-28CRCB	DIS3Z-28CRC	DIS3Z-28CRCB
30	17 7/8	31 9/16	56	DIS2-30CRC	DIS2-30CRCB	DIS4-30CRC	DIS4-30CRCB	DIS3Z-30CRC	DIS3Z-30CRCB
32	17 1/4	31 1/4	60	DIS2-32CRC	DIS2-32CRCB	DIS4-32CRC	DIS4-32CRCB	DIS3Z-32CRC	DIS3Z-32CRCB
34	17 7/8	31 7/8	60	DIS2-34CRC	DIS2-34CRCB	DIS4-34CRC	DIS4-34CRCB	DIS3Z-34CRC	DIS3Z-34CRCB
36	18 1/2	32 1/2	60	DIS2-36CRC	DIS2-36CRCB	DIS4-36CRC	DIS4-36CRCB	DIS3Z-36CRC	DIS3Z-36CRCB

**Material options (Inner):** 304, 316

**Flow resistance:** K = 0.5

### No Loss Cap (CNL)

Used to provide a “low-loss” termination on vertical run when the chimney is installed at a location subject to high wind condition and need protecting to the equipment from the rain. It allows your equipment to operate as efficiently as possible and the exhaust to blast unhindered straight up with full velocity. As per the ACGIH: Industrial Ventilation Manual, 23rd edition (1998), the outer wall must have a diameter of  $\varnothing_{flue} + 2$ , overlap the inner wall by 6", be separated from the inner wall with 1" spacers, and have a height of four (4) times the  $\varnothing_{flue}$ .

**NOTE: NOT AVAILABLE FOR MODEL DIS3Z**

Two different designs for the CRC:

**Ø5" to Ø13":** An inner flue with an outer wall connected on it.

**Ø14" to Ø36":** An inner flue with 1" spacers connected on it, different number of DCL sections of  $\varnothing + 2$ , working as outer wall, making a total height of 4 times the flue  $\varnothing$ , whose are mounted on an Anchor Plate (AP) when it has 6" overlap, placed.

See Installation Instructions for more information.

Included for **Ø5 to Ø13**:

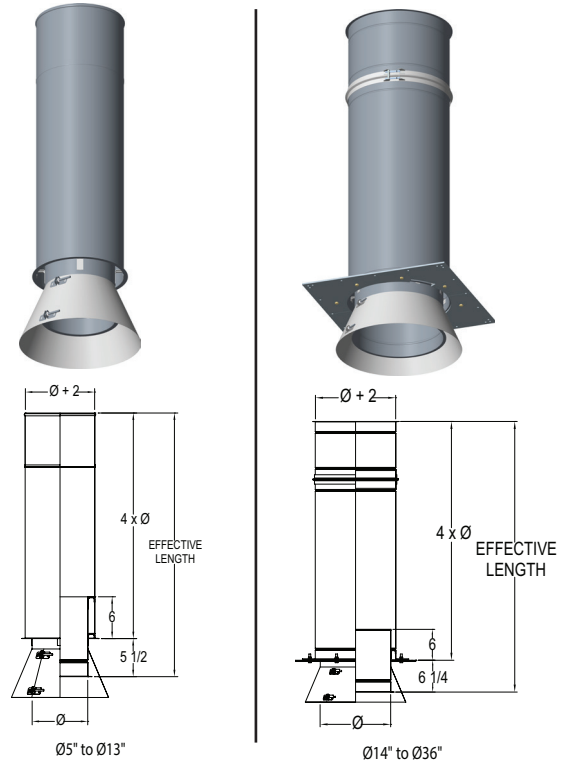
For **DCL**: One (1) No Loss Cap (CNL) only.

For **DAS1, DIS1, DIS2, and DIS4**: One (1) Closure Ring (CR).

Included for **Ø14 to Ø36**:

For **DCL**: One (1) inner wall with brackets on it, one (1) locking inner V-Band, one (1) Anchor Plate (AP), different numbers and lengths of DCL section of  $\varnothing + 2$  with their inner V-Band (BSI of  $\varnothing + 2$ ), and one (1) Closure Ring (CR).

For **DAS1, DIS1, DIS2 and DIS4**: One (1) inner wall with brackets on it, one (1) locking inner V-Band (BSI), one (1) Anchor Plate (AP), different numbers and lengths of DCL section of  $\varnothing + 2$  with their inner V-Band (BSI of  $\varnothing + 2$ ), and one (1) Closure Ring (CR).



Ø (in.)	ØB (in.)	C (in)	D - Effective Length (in.)	Product Code				
				DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)
Ø5 to Ø36	Ø + 2	4 x Ø	(4 x Ø) + 5 1/2	DCLØCNL	DAS1-ØCNL	DIS1-ØCNL	DIS2-ØCNL	DIS4-ØCNL

Material options (Inner-Outer): 304-316

### Flip Top (FT)

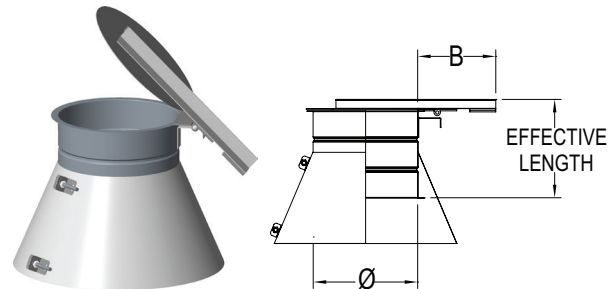
Used mostly in vertical diesel or turbine exhaust, it prevents moisture and debris from entering the system. It can also be used on horizontal run when properly installed. It opens with internal pressure and closes when no pressure. It is a single wall part (for all Models DCL, DAS1, DIS1, DIS2, and DIS4). For DAS1, DIS1, DIS2, and DIS4, a Closure Ring (CR) is provided to protect the insulated space between standard pipe inner and outer.

**NOTE: NOT AVAILABLE FOR MODEL DIS3Z**

Included: One (1) Flip Top (FT) only.

For **DCL**: Nothing else.

For **DAS1, DIS1, DIS2, and DIS4**: One (1) Closure Ring (CR).



Ø (in.)	Effective Length (in.)	B (in.)	Product Code				
			DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)
Ø5 to Ø7	7 5/8	5 1/8	DCLØFT	DAS1-ØFT	DIS1-ØFT	DIS2-ØFT	DIS4-ØFT
Ø8 to Ø10		6 1/8					
Ø11 to Ø13		7 1/8					
Ø14		8 1/8					
Ø16 to Ø18		9 1/8					
Ø20 to Ø22		10 1/8					
Ø24		11 1/8					

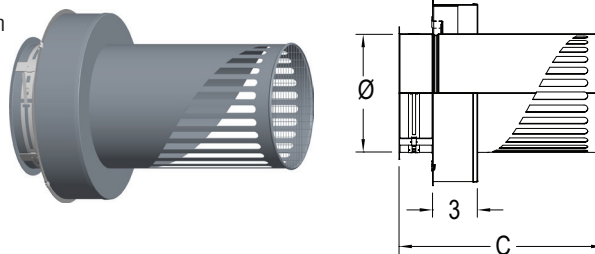
Material options (Inner-Outer): 304-316

## Miter Cut (MC)

Used in horizontal diesel or turbine exhaust to minimize the entry of rainwater in the system when installed in the proper orientation.

**Included:**

For DCL, OAX1, DIS1, DIS2, DIS4, and DIS3Z: One (1) Miter Cut (MC) only, One (1) birdscreen at the end.



Ø (in.)	C - Effective Length (in.)	Product Code					
		DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)	DIS3Z (3" Insulated)
5	12 5/32	DCL5MC	DAS1-5MC	DIS1-5MC	DIS2-5MC	DIS4-5MC	DIS3Z-5MC
6	13 1/4	DCL6MC	DAS1-6MC	DIS1-6MC	DIS2-6MC	DIS4-6MC	DIS3Z-6MC
7	14 3/8	DCL7MC	DAS1-7MC	DIS1-7MC	DIS2-7MC	DIS4-7MC	DIS3Z-7MC
8	15 15/32	DCL8MC	DAS1-8MC	DIS1-8MC	DIS2-8MC	DIS4-8MC	DIS3Z-8MC
9	16 9/16	DCL9MC	DAS1-9MC	DIS1-9MC	DIS2-9MC	DIS4-9MC	DIS3Z-9MC
10	17 21/32	DCL10MC	DAS1-10MC	DIS1-10MC	DIS2-10MC	DIS4-10MC	DIS3Z-10MC
11	18 3/4	DCL11MC	DAS1-11MC	DIS1-11MC	DIS2-11MC	DIS4-11MC	DIS3Z-11MC
12	19 7/8	DCL12MC	DAS1-12MC	DIS1-12MC	DIS2-12MC	DIS4-12MC	DIS3Z-12MC
13	20 31/32	DCL13MC	DAS1-13MC	DIS1-13MC	DIS2-13MC	DIS4-13MC	DIS3Z-13MC
14	22 1/16	DCL14MC	DAS1-14MC	DIS1-14MC	DIS2-14MC	DIS4-14MC	DIS3Z-14MC
16	24 1/4	DCL16MC	DAS1-16MC	DIS1-16MC	DIS2-16MC	DIS4-16MC	DIS3Z-16MC
18	26 15/32	DCL18MC	DAS1-18MC	DIS1-18MC	DIS2-18MC	DIS4-18MC	DIS3Z-18MC
20	28 21/32	DCL20MC	DAS1-20MC	DIS1-20MC	DIS2-20MC	DIS4-20MC	DIS3Z-20MC
22	30 7/8	DCL22MC	DAS1-22MC	DIS1-22MC	DIS2-22MC	DIS4-22MC	DIS3Z-22MC
24	33 1/16	DCL24MC	DAS1-24MC	DIS1-24MC	DIS2-24MC	DIS4-24MC	DIS3Z-24MC
26	35 1/4	DCL26MC	DAS1-26MC	DIS1-26MC	DIS2-26MC	DIS4-26MC	DIS3Z-26MC
28	37 15/32	DCL28MC	DAS1-28MC	DIS1-28MC	DIS2-28MC	DIS4-28MC	DIS3Z-28MC
30	39 21/32	DCL30MC	DAS1-30MC	DIS1-30MC	DIS2-30MC	DIS4-30MC	DIS3Z-30MC
32	41 7/8	DCL32MC	DAS1-32MC	DIS1-32MC	DIS2-32MC	DIS4-32MC	DIS3Z-32MC
34	44 1/16	DCL34MC	DAS1-34MC	DIS1-34MC	DIS2-34MC	DIS4-34MC	DIS3Z-34MC
36	46 1/4	DCL36MC	DAS1-36MC	DIS1-36MC	DIS2-36MC	DIS4-36MC	DIS3Z-36MC

**Material options (Inner-Outer):** 304-Galvalume, 304-304, 316-Galvalume, 316-304

**Flow resistance:** K = 1.25

### Locking Inner "V" Band (BSI)

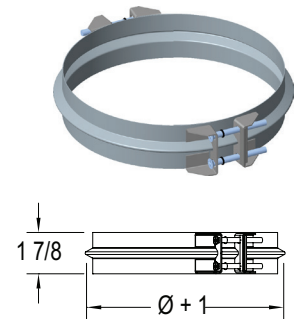
Used to clamp and seal parts together. To be sealed with joint sealant (not included).

**Included:**

For DCL, DIS1, DIS2, and DIS4: Two (2) half band, and hardware.

For DIS3Z: Two (2) half band, and hardware.

Ø (in.)	Total Length (in)	Effective Length (in)	Product Code					
			DCL (Single Wall)	DAS1 (1" air)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)	DIS3Z (3" Insulated)
5 to 36	1 7/8	0	DCLØBSI	DAS1-ØBSI	DIS1-ØBSI	DIS2-ØBSI	DIS4-ØBSI	DIS3Z-ØBSI



Materials available: 441.

### Outer Band (BSE)

Used to seal outer casing at each joint. When then (BSE) is exposed to weather, sealant S-375 (by others) must be used to seal every joint.

**NOTE: NOT AVAILABLE FOR MODEL DCL**

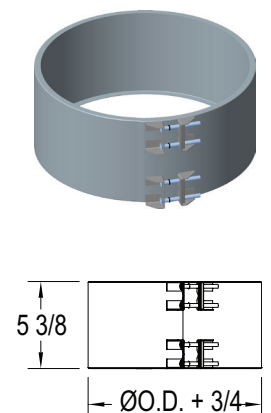
**Included:**

For DAS1 and DIS1, DIS2, and DIS4: Two (2) half band (small diameter) or one (1) band (for large diameter).

For DIS1, DIS2, and DIS4 only: Two (2) half band (small diameter) or (1) band (larger diameter), and one (1) 6" wide insulation strip, and hardware.

For DIS3Z: Two (2) half band (small diameter) or one (1) band (for large diameter).

Ø (in.)	Ø of band (in.)	Total Length (in)	Effective Length (in)	Product Code				
				DAS1 (1" air)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)	DIS3Z (3" Insulated)
5 to 36	O.D. + 3/4	5 3/8	0	DAS1-ØBSE	DIS1-ØBSE	DIS2-ØBSE	DIS4-ØBSE	DIS3Z-ØBSE



Materials available: 441.

### Centering Flue Extension (PR-C0794)

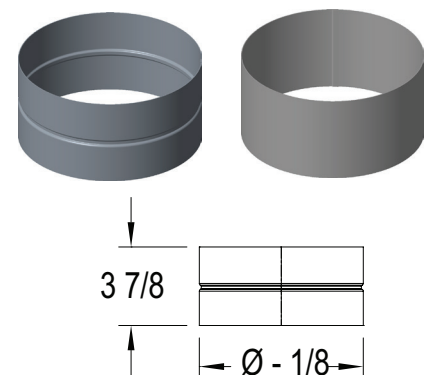
Unattached sleeve used for centering parts together while assembling.

**NOTE: NOT AVAILABLE FOR MODEL DCL**

**Included:**

For DAS1 and DIS1, DIS2, DIS4, and DIS3Z: One (1) Sleeve.

Ø (in.)	Ø of sleeve (in.)	Total Length (in)	Effective Length (in)	Product Code
				DAS1 (1" air), DIS1 (1" Insulated), DIS2 (2" Insulated), DIS4 (4" Insulated), DIS3Z (3" Insulated)
5 to 36	Ø - 1/8	Ø - 1/8	0	PR-C0794-Ø



Materials available: 441.

### Half Outer Band (DBSE)

Used to seal outer casing when using Anchor Plate (AP), an Heavy Duty Wall Support (WSHD), Half Universal Flange Adaptors (HUF). Half height of the BSE. Need one (1) band on each side of the plates.

**NOTE: NOT AVAILABLE FOR MODEL DCL**

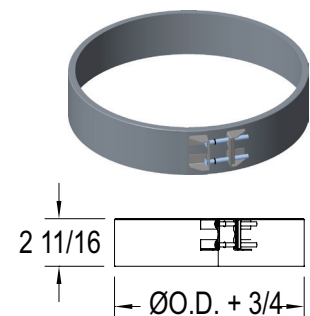
**Included:**

For DAS1 and DIS1, DIS2, and DIS4: Two (2) half band (small diameter) or one (1) band (for large diameter), and hardware.

For DIS1, DIS2, and DIS4 only: Two (2) half band (small diameter) or (1) band (larger diameter), and one (1) 3" wide insulation strip.

For DIS3Z: Two half bands (small diameter) or one band (for large diameter), One 3" wide insulation strip and hardware.

Ø (in.)	Ø of band (in)	Total Length (in)	Effective Length (in)	Product Code				
				DAS1 (1" air)	DIS1 (1" insulated)	DIS2 (2" insulated)	DIS4 (4" insulated)	DIS3Z (3" Insulated)
5 to 36	Ø O.D. + 3/4	2 11/16	0	DAS1-ØDBSE	DIS1-ØDBSE	DIS2-ØDBSE	DIS4-ØDBSE	DIS3Z-ØBSE



Materials available: 441.



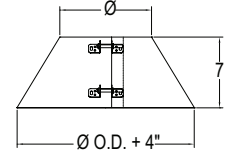
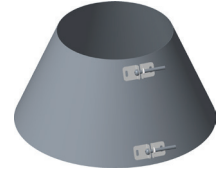
## Duct Closure Band (CR)

Use to shield insulation from weather for some Single Wall Termination (Conic Rain Cap, No loss Cap, Flip Top) or when transition from DAS1, DIS1, DIS2, DIS4 to DCL on vertical run. Hardware provided.

**Included:**

For DAS1, DIS1, DIS2, and DIS4: One (1) collar and hardware.

For DIS3Z: One (1) half band and hardware.



Ø (in.)	ØA (in)	ØB (in)	Total Length (in)	Effective Length (in)	Product Code				
					DAS1 (1" air)	DIS1 (1" insulated)	DIS2 (2" insulated)	DIS4 (4" insulated)	DIS3Z (3" Insulated)
5 to 36	Ø + 1/16	ØO.D. + 4	7	0	DAS1-ØCR	DIS1-ØCR	DIS2-ØCR	DIS4-ØCR	DIS3Z-ØCR

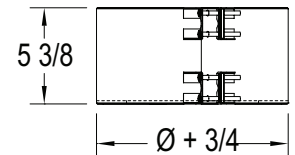
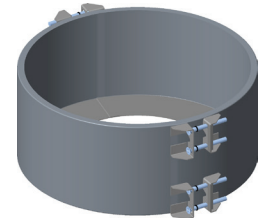
Materials available: Galvalume, 304

## Transition Outer Band (O.D. from one lineup to another)

Used to shield insulation on vertical or horizontal run when there is a transition from any product lineup to another one. Each product can be used on both ways: to convert up to a larger outer wall, or to convert up to a smaller outer wall.

**Included:**

For DCL, DAS1, DIS1, DIS2, and DIS4: Two (2) half bands with half disc, and hardware.



Ø (in.)	Ø of band (in)	Total Length (in)	Effective Length (in)	Product Code			
				One (1) lineup gap (O.D. + 2 or O.D. - 2)	Two (2) lineup gap (O.D. + 4 or O.D. - 4)	Three (3) lineup gap (O.D. + 6 or O.D. - 6)	Four (4) lineup gap (O.D. + 8 or O.D. - 8)
5 to 36	ØO.D. + 3/4	5 3/8	0	DCLØDAS1 DAS1-ØDIS2 DIS1-ØDIS2	DCLØDIS2 DIS2-ØDIS4	DAS1-ØDIS4 DIS1-ØDIS4	DCLØDIS4

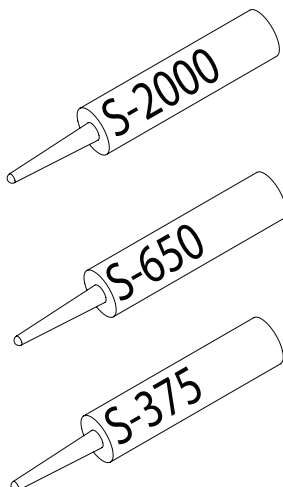
Materials available: 441

## Sealant

The **S-375** grey sealant is used if any joints of any bands are exposed to weather, or on other parts that are external the structure and need to be sealed.

The **S-650** red sealant is used for Flange to Flange Joint Assembly for a maximum continuous flue temperature of 650°F.

The **S-2000** white sealant is used for Flange to Flange Joint Assembly for a maximum continuous flue temperature of 2000°F.



Flue Diameter Ø	Expected number of tubes per joint/hole for each sealant	
	S-375 (Tube per outer Joint for exterior weathering)	S-650 and S-2000 (Tube per Joint Assembly)
5	1/5	1/5
6	1/5	1/5
7	1/5	1/5
8	1/5	1/5
9	1/5	1/5
10	1/5	1/5
11	1/4	1/4
12	1/4	1/4
13	1/4	1/4
14	1/4	1/4
16	1/4	1/4
18	1/3	1/3
20	1/3	1/3
22	1/3	1/3
24	1/2	1/2
26	1/2	1/2
28	1/2	1/2
30	2/3	2/3
32	2/3	2/3
34	3/4	3/4
36	3/4	3/4

### No Tool Inline Access Door

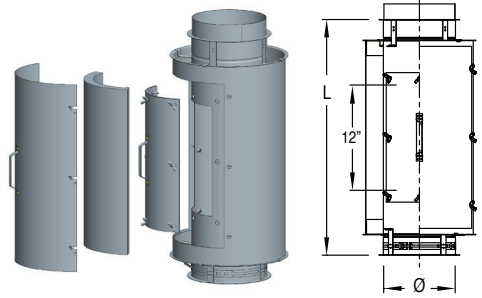
Used for inspection and cleaning. Greaseproof and fire-tight seal.

**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) fiber high temperature gasket, one (1) silicone gasket, one (1) inner door, and hardware (wing screws) for the access door. Replacement gaskets available

**For DAS1, DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) locking outer band (BSE), one (1) fiber high temperature gasket, one (1) silicone gasket, one (1) inner door, one (1) outer door and hardware (wing screws) for both access doors.

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794), one (1) locking outer band (BSE), one (1) fiber high temperature gasket, one (1) silicone gasket, one (1) inner door, one (1) outer door and hardware (wing screws) for both access doors.



Ø (in.)	Length (in)	Effective Length (in)	Product Code					
			DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)	DIS3Z (3" Insulated)
Ø5" to Ø36"	26	26 3/8	DCLØADL26	DAS1-ØADL26	DIS1-ØADL26	DIS2-ØADL26	DIS4-ØADL26	DIS3Z-ØADL26
Ø5" to Ø36"	36	36 1/16	DCLØADL36	DAS1-ØADL36	DIS1-ØADL36	DIS2-ØADL36	DIS4-ØADL36	DIS3Z-ØADL36

**Materials available:** 304, 316.

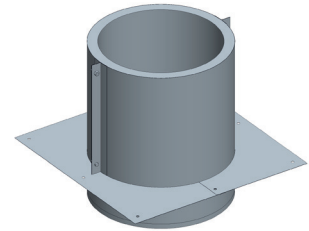
**Flow resistance:** K = .30 (eff.length [ft] / Ø [in]).

### Through Penetration Firestop Kit

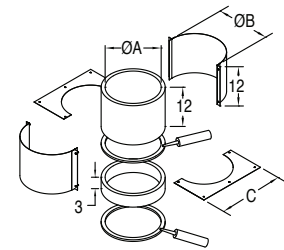
Used to maintain fire resistance rating of a floor or a wall when the grease duct DIS3Z is penetrating a 2-hour fire-rated floor or wall (UL System No. C-AJ-7160). One kit required for a floor penetration and two kits required for wall penetrations. Diameter of penetration is outer casing + 2" (Ø I.D. + 8"). Must use the firestop caulking. Reference installation instructions.

**Included:**

**For DIS3Z:** Two (2) split closure band, two (2) split cover plate, one (1) 12" wide insulation strip, one (1) 3" wide insulation strip and Hardware included except the connection to the wall/floor (by others).



Ø (in.)	ØA (in.)	ØB (I.D.) (in.)	C (in.)	Height (in.)	DIS3Z (3 Insulated)
5	11	13	17	à 12" above floor or beyond wall	DIS3Z-5TPFK
6	12	14	18		DIS3Z-6TPFK
7	13	15	19		DIS3Z-7TPFK
8	14	16	20		DIS3Z-8TPFK
9	15	17	21		DIS3Z-9TPFK
10	16	18	22		DIS3Z-10TPFK
11	17	19	23		DIS3Z-11TPFK
12	18	20	24		DIS3Z-12TPFK
13	19	21	25		DIS3Z-13TPFK
14	20	22	26		DIS3Z-14TPFK
16	22	24	28		DIS3Z-16TPFK
18	24	26	30		DIS3Z-18TPFK
20	26	28	32		DIS3Z-20TPFK
22	28	30	34		DIS3Z-22TPFK
24	30	32	36	DIS3Z-24TPFK	
26	32	34	38	DIS3Z-26TPFK	
28	34	36	40	DIS3Z-28TPFK	
30	36	38	42	DIS3Z-30TPFK	
32	38	40	44	DIS3Z-32TPFK	
34	40	42	46	DIS3Z-34TPFK	
36	42	44	48	DIS3Z-36TPFK	



**Materials available:** Galvalume.

### 90° Tees and 90° Tees with a Dam

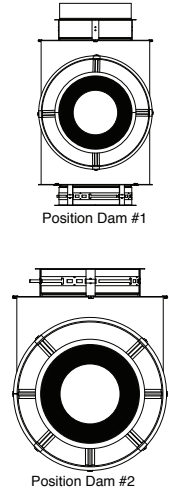
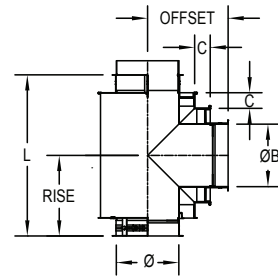
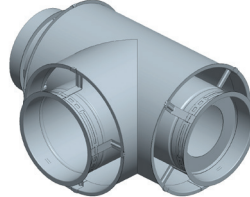
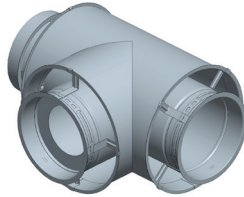
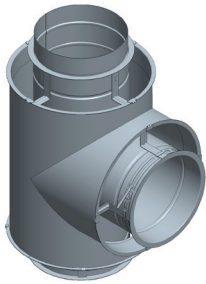
Used to change direction at 90° breeching. Can be used as an inspection access in horizontal runs. An optional Dam can be ordered in position #1 or #2 for protection against fluids running out while cleaning.

**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI) and one (1) Centering Flue Extension (PR-C0794).

**For DAS1, DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).



DCL (Single Wall)													
Ø (in.)	Effective Length (in.)	C (in.)	Rise (in.)	Offset (in.)	Standard	Option D1 Or D2	Ø (in.)	Effective Length (in.)	C (in.)	Rise (in.)	Offset (in.)	Standard	Option D1 Or D2
5	12 1/16	0	6 1/32	6 1/32	DCL5T90	DCL5T90D1 or 2	18	25 1/16	0	12 17/32	12 17/32	DCL18T90	DCL18T90D1 or 2
6	13 1/16	0	6 17/32	6 17/32	DCL6T90	DCL6T90D1 or 2	20	27 1/16	0	13 17/32	13 17/32	DCL20T90	DCL20T90D1 or 2
7	14 1/16	0	7 1/32	7 1/32	DCL7T90	DCL7T90D1 or 2	22	29 1/16	0	14 17/32	14 17/32	DCL22T90	DCL22T90D1 or 2
8	15 1/16	0	7 17/32	7 17/32	DCL8T90	DCL8T90D1 or 2	24	31 1/16	0	15 17/32	15 17/32	DCL24T90	DCL24T90D1 or 2
9	16 1/16	0	8 1/32	8 1/32	DCL9T90	DCL9T90D1 or 2	26	33 1/16	0	16 17/32	16 17/32	DCL26T90	DCL26T90D1 or 2
10	17 1/16	0	8 17/32	8 17/32	DCL10T90	DCL10T90D1 or 2	28	35 1/16	0	17 17/32	17 17/32	DCL28T90	DCL28T90D1 or 2
11	18 1/16	0	9 1/32	9 1/32	DCL11T90	DCL11T90D1 or 2	30	37 1/16	0	18 17/32	18 17/32	DCL30T90	DCL30T90D1 or 2
12	19 1/16	0	9 17/32	9 17/32	DCL12T90	DCL12T90D1 or 2	32	39 1/16	0	19 17/32	19 17/32	DCL32T90	DCL32T90D1 or 2
13	20 1/16	0	10 1/32	10 1/32	DCL13T90	DCL13T90D1 or 2	34	41 1/16	0	20 17/32	20 17/32	DCL34T90	DCL34T90D1 or 2
14	21 1/16	0	10 17/32	10 17/32	DCL14T90	DCL14T90D1 or 2	36	43 1/16	0	21 17/32	21 17/32	DCL36T90	DCL36T90D1 or 2
16	23 1/16	0	11 17/32	11 17/32	DCL16T90	DCL16T90D1 or 2							

## 90° Tees and 90° Tees with a Dam continued

Used to change direction at 90° breeching. Can be used as an inspection access in horizontal runs. An optional Dam can be ordered in position #1 or #2 for protection against fluids running out while cleaning.

**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI) and one (1) Centering Flue Extension (PR-C0794).

**For DAS1, DIS1, DIS2, and DIS4:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).

**For DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Centering Flue Extension (PR-C0794) and one (1) Locking Outer Band (BSE).

Ø (in.)	Effective Length (in.)	C (in.)	Rise (in.)	Offset (in.)	DAS1 (1" air Insulated)		DIS1 (1" Insulated)		DIS2 (2" Insulated)		DIS4 (4" Insulated)		DIS3Z (3" Insulated)	
					Standard	Option D1 Or D2	Standard	Option D1 Or D2	Standard	Option D1 Or D2	Standard	Option D1 Or D2	Standard	Option D1 Or D2
5	19 11/16	2	9 27/32	9 27/32	DAS1-5T90	DAS1-5T90D1 or 2	DIS1-5T90	DIS1-5T90D1 or 2	DIS2-5T90	DIS2-5T90D1 or 2	DIS4-5T90	DIS4-5T90D1 or 2	DIS3Z-5T90	DIS3Z-5T90D1 or 2
6	20 11/16	2	10 11/32	10 11/32	DAS1-6T90	DAS1-6T90D1 or 2	DIS1-6T90	DIS1-6T90D1 or 2	DIS2-6T90	DIS2-6T90D1 or 2	DIS4-6T90	DIS4-6T90D1 or 2	DIS3Z-6T90	DIS3Z-6T90D1 or 2
7	21 11/16	2	10 27/32	10 27/32	DAS1-7T90	DAS1-7T90D1 or 2	DIS1-7T90	DIS1-7T90D1 or 2	DIS2-7T90	DIS2-7T90D1 or 2	DIS4-7T90	DIS4-7T90D1 or 2	DIS3Z-7T90	DIS3Z-7T90D1 or 2
8	22 11/16	2	11 11/32	11 11/32	DAS1-8T90	DAS1-8T90D1 or 2	DIS1-8T90	DIS1-8T90D1 or 2	DIS2-8T90	DIS2-8T90D1 or 2	DIS4-8T90	DIS4-8T90D1 or 2	DIS3Z-8T90	DIS3Z-8T90D1 or 2
9	23 11/16	2	11 27/32	11 27/32	DAS1-9T90	DAS1-9T90D1 or 2	DIS1-9T90	DIS1-9T90D1 or 2	DIS2-9T90	DIS2-9T90D1 or 2	DIS4-9T90	DIS4-9T90D1 or 2	DIS3Z-9T90	DIS3Z-9T90D1 or 2
10	24 11/16	2	12 11/32	12 11/32	DAS1-10T90	DAS1-10T90D1 or 2	DIS1-10T90	DIS1-10T90D1 or 2	DIS2-10T90	DIS2-10T90D1 or 2	DIS4-10T90	DIS4-10T90D1 or 2	DIS3Z-10T90	DIS3Z-10T90D1 or 2
11	25 11/16	2	12 27/32	12 27/32	DAS1-11T90	DAS1-11T90D1 or 2	DIS1-11T90	DIS1-11T90D1 or 2	DIS2-11T90	DIS2-11T90D1 or 2	DIS4-11T90	DIS4-11T90D1 or 2	DIS3Z-11T90	DIS3Z-11T90D1 or 2
12	26 11/16	2	13 11/32	13 11/32	DAS1-12T90	DAS1-12T90D1 or 2	DIS1-12T90	DIS1-12T90D1 or 2	DIS2-12T90	DIS2-12T90D1 or 2	DIS4-12T90	DIS4-12T90D1 or 2	DIS3Z-12T90	DIS3Z-12T90D1 or 2
13	27 11/16	3	13 27/32	13 27/32	DAS1-13T90	DAS1-13T90D1 or 2	DIS1-13T90	DIS1-13T90D1 or 2	DIS2-13T90	DIS2-13T90D1 or 2	DIS4-13T90	DIS4-13T90D1 or 2	DIS3Z-13T90	DIS3Z-13T90D1 or 2
14	30 11/16	3	15 11/32	15 11/32	DAS1-14T90	DAS1-14T90D1 or 2	DIS1-14T90	DIS1-14T90D1 or 2	DIS2-14T90	DIS2-14T90D1 or 2	DIS4-14T90	DIS4-14T90D1 or 2	DIS3Z-14T90	DIS3Z-14T90D1 or 2
16	32 11/16	3	16 11/32	16 11/32	DAS1-16T90	DAS1-16T90D1 or 2	DIS1-16T90	DIS1-16T90D1 or 2	DIS2-16T90	DIS2-16T90D1 or 2	DIS4-16T90	DIS4-16T90D1 or 2	DIS3Z-16T90	DIS3Z-16T90D1 or 2
18	34 11/16	3	17 11/32	17 11/32	DAS1-18T90	DAS1-18T90D1 or 2	DIS1-18T90	DIS1-18T90D1 or 2	DIS2-18T90	DIS2-18T90D1 or 2	DIS4-18T90	DIS4-18T90D1 or 2	DIS3Z-18T90	DIS3Z-18T90D1 or 2
20	36 11/16	3	18 11/32	18 11/32	DAS1-20T90	DAS1-20T90D1 or 2	DIS1-20T90	DIS1-20T90D1 or 2	DIS2-20T90	DIS2-20T90D1 or 2	DIS4-20T90	DIS4-20T90D1 or 2	DIS3Z-20T90	DIS3Z-20T90D1 or 2
22	38 11/16	3	19 11/32	19 11/32	DAS1-22T90	DAS1-22T90D1 or 2	DIS1-22T90	DIS1-22T90D1 or 2	DIS2-22T90	DIS2-22T90D1 or 2	DIS4-22T90	DIS4-22T90D1 or 2	DIS3Z-22T90	DIS3Z-22T90D1 or 2
24	40 11/16	3	20 11/32	20 11/32	DAS1-24T90	DAS1-24T90D1 or 2	DIS1-24T90	DIS1-24T90D1 or 2	DIS2-24T90	DIS2-24T90D1 or 2	DIS4-24T90	DIS4-24T90D1 or 2	DIS3Z-24T90	DIS3Z-24T90D1 or 2
26	46 11/16	5	23 11/32	23 11/32	DAS1-26T90	DAS1-26T90D1 or 2	DIS1-26T90	DIS1-26T90D1 or 2	DIS2-26T90	DIS2-26T90D1 or 2	DIS4-26T90	DIS4-26T90D1 or 2	DIS3Z-26T90	DIS3Z-26T90D1 or 2
28	48 11/16	5	24 11/32	24 11/32	DAS1-28T90	DAS1-28T90D1 or 2	DIS1-28T90	DIS1-28T90D1 or 2	DIS2-28T90	DIS2-28T90D1 or 2	DIS4-28T90	DIS4-28T90D1 or 2	DIS3Z-28T90	DIS3Z-28T90D1 or 2
30	50 11/16	5	25 11/32	25 11/32	DAS1-30T90	DAS1-30T90D1 or 2	DIS1-30T90	DIS1-30T90D1 or 2	DIS2-30T90	DIS2-30T90D1 or 2	DIS4-30T90	DIS4-30T90D1 or 2	DIS3Z-30T90	DIS3Z-30T90D1 or 2
32	52 11/16	5	26 11/32	26 11/32	DAS1-32T90	DAS1-32T90D1 or 2	DIS1-32T90	DIS1-32T90D1 or 2	DIS2-32T90	DIS2-32T90D1 or 2	DIS4-32T90	DIS4-32T90D1 or 2	DIS3Z-32T90	DIS3Z-32T90D1 or 2
34	54 11/16	5	27 11/32	27 11/32	DAS1-34T90	DAS1-34T90D1 or 2	DIS1-34T90	DIS1-34T90D1 or 2	DIS2-34T90	DIS2-34T90D1 or 2	DIS4-34T90	DIS4-34T90D1 or 2	DIS3Z-34T90	DIS3Z-34T90D1 or 2
36	56 11/16	5	28 11/32	28 11/32	DAS1-36T90	DAS1-36T90D1 or 2	DIS1-36T90	DIS1-36T90D1 or 2	DIS2-36T90	DIS2-36T90D1 or 2	DIS4-36T90	DIS4-36T90D1 or 2	DIS3Z-36T90	DIS3Z-36T90D1 or 2

Also available with smaller snout ØB. Code: DCLØT90BØ or DAS1-ØT90ØB, DIS1-ØT90ØB, DIS2-ØT90ØB, DIS4-ØT90ØB

Two different position option of a Dam inside the flue is available. Code for position 1 or 2: DCLØT90D( 1or 2) or DAS1-ØT90D, DIS1-ØT90D, DIS2-ØT90D, DIS4-ØT90D (1 or 2).

**Materials available:** 304, 316.

**Flow resistance:** K = 1.25

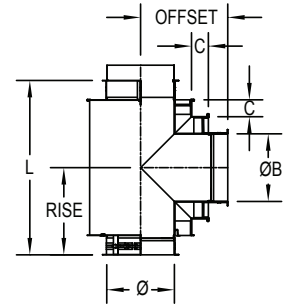
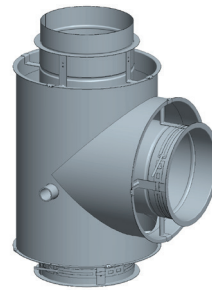
### 90° Tees with Nozzle

Used to change direction at 90° breeching, and provides access for installation or inspection of sprinkler head. 1" NPT nipple.

**Included:**

**For DCL, DAS1, DIS1, DIS2, and DIS4:** One Locking V-Band (BSI), one Centering Flue Extension (PR-C0794) and one Locking Outer Band (BSE).

**For DIS3Z:** One Locking V-Band (BSI), one Centering Flue Extension (PR-C0794) and one Locking Outer Band (BSE).



DCL (Single Wall)														
Ø (in.)	Effective Length (in.)	C (in.)	RISE (in.)	OFFSET (in.)	product code	Effective Length (in.)	C (in.)	RISE (in.)	OFFSET (in.)	DAS1 (1" air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)	DIS3Z (3" Insulated)
5	12 1/16	0	6 1/32	6 1/32	DCL5T90N	19 11/16	2	9 27/32	9 27/32	DAS1-5T90N	DIS1-5T90N	DIS2-5T90N	DIS4-5T90N	DIS3Z-5T90N
6	13 1/16	0	6 17/32	6 17/32	DCL6T90N	20 11/16	2	10 11/32	10 11/32	DAS1-6T90N	DIS1-6T90N	DIS2-6T90N	DIS4-6T90N	DIS3Z-6T90N
7	14 1/16	0	7 1/32	7 1/32	DCL7T90N	21 11/16	2	10 27/32	10 27/32	DAS1-7T90N	DIS1-7T90N	DIS2-7T90N	DIS4-7T90N	DIS3Z-7T90N
8	15 1/16	0	7 17/32	7 17/32	DCL8T90N	22 11/16	2	11 11/32	11 11/32	DAS1-8T90N	DIS1-8T90N	DIS2-8T90N	DIS4-8T90N	DIS3Z-8T90N
9	16 1/16	0	8 1/32	8 1/32	DCL9T90N	23 11/16	2	11 27/32	11 27/32	DAS1-9T90N	DIS1-9T90N	DIS2-9T90N	DIS4-9T90N	DIS3Z-9T90N
10	17 1/16	0	8 17/32	8 17/32	DCL10T90N	24 11/16	2	12 11/32	12 11/32	DAS1-10T90N	DIS1-10T90N	DIS2-10T90N	DIS4-10T90N	DIS3Z-10T90N
11	18 1/16	0	9 1/32	9 1/32	DCL11T90N	25 11/16	2	12 27/32	12 27/32	DAS1-11T90N	DIS1-11T90N	DIS2-11T90N	DIS4-11T90N	DIS3Z-11T90N
12	19 1/16	0	9 17/32	9 17/32	DCL12T90N	26 11/16	2	13 11/32	13 11/32	DAS1-12T90N	DIS1-12T90N	DIS2-12T90N	DIS4-12T90N	DIS3Z-12T90N
13	20 1/16	0	10 1/32	10 1/32	DCL13T90N	27 11/16	3	13 27/32	13 27/32	DAS1-13T90N	DIS1-13T90N	DIS2-13T90N	DIS4-13T90N	DIS3Z-13T90N
14	21 1/16	0	10 17/32	10 17/32	DCL14T90N	30 11/16	3	15 11/32	15 11/32	DAS1-14T90N	DIS1-14T90N	DIS2-14T90N	DIS4-14T90N	DIS3Z-14T90N
16	23 1/16	0	11 17/32	11 17/32	DCL16T90N	32 11/16	3	16 11/32	16 11/32	DAS1-16T90N	DIS1-16T90N	DIS2-16T90N	DIS4-16T90N	DIS3Z-16T90N
18	25 1/16	0	12 17/32	12 17/32	DCL18T90N	34 11/16	3	17 11/32	17 11/32	DAS1-18T90N	DIS1-18T90N	DIS2-18T90N	DIS4-18T90N	DIS3Z-18T90N
20	27 1/16	0	13 17/32	13 17/32	DCL20T90N	36 11/16	3	18 11/32	18 11/32	DAS1-20T90N	DIS1-20T90N	DIS2-20T90N	DIS4-20T90N	DIS3Z-20T90N
22	29 1/16	0	14 17/32	14 17/32	DCL22T90N	38 11/16	3	19 11/32	19 11/32	DAS1-22T90N	DIS1-22T90N	DIS2-22T90N	DIS4-22T90N	DIS3Z-22T90N
24	31 1/16	0	15 17/32	15 17/32	DCL24T90N	40 11/16	3	20 11/32	20 11/32	DAS1-24T90N	DIS1-24T90N	DIS2-24T90N	DIS4-24T90N	DIS3Z-24T90N
26	33 1/16	0	16 17/32	16 17/32	DCL26T90N	46 11/16	5	23 11/32	23 11/32	DAS1-26T90N	DIS1-26T90N	DIS2-26T90N	DIS4-26T90N	DIS3Z-26T90N
28	35 1/16	0	17 17/32	17 17/32	DCL28T90N	48 11/16	5	24 11/32	24 11/32	DAS1-28T90N	DIS1-28T90N	DIS2-28T90N	DIS4-28T90N	DIS3Z-28T90N
30	37 1/16	0	18 17/32	18 17/32	DCL30T90N	50 11/16	5	25 11/32	25 11/32	DAS1-30T90N	DIS1-30T90N	DIS2-30T90N	DIS4-30T90N	DIS3Z-30T90N
32	39 1/16	0	19 17/32	19 17/32	DCL32T90N	52 11/16	5	26 11/32	26 11/32	DAS1-32T90N	DIS1-32T90N	DIS2-32T90N	DIS4-32T90N	DIS3Z-32T90N
34	41 1/16	0	20 17/32	20 17/32	DCL34T90N	54 11/16	5	27 11/32	27 11/32	DAS1-34T90N	DIS1-34T90N	DIS2-34T90N	DIS4-34T90N	DIS3Z-34T90N
36	43 1/16	0	21 17/32	21 17/32	DCL36T90N	56 11/16	5	28 11/32	28 11/32	DAS1-36T90N	DIS1-36T90N	DIS2-36T90N	DIS4-36T90N	DIS3Z-36T90N

**Materials available:** 304, 316.

Also available with smaller snout ØB. Code: DCLØT90NØB or DAS1-ØT90NØB, DIS1-ØT90NØB, DIS2-ØT90NØB, DIS4-ØT90NØB

**Flow resistance:** K = 1.25 + an unknown value for the sprinkler head. Contact sprinkler head manufacturer

## No Tool Access Tee Cap

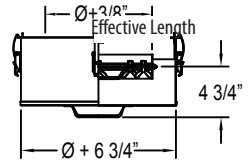
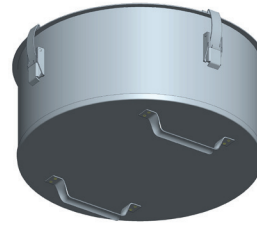
Used to close and seal unused tee ports. Provides easy and toolless access for inspection.

**Included:**

**For DCL:** One (1) disc, one (1) annular disc with rivnuts, one (1) SMALL Locking Inner "V" Band (BSI), wing screws and hardware.

**For DAS1, DIS1, DIS2, and DIS4:** One (1) disc, one (1) annular disc with rivnuts, one (1) SMALL Locking Inner "V" Band (BSI), one (1) outer casing with latches, one (1) insulation wrap, three (3) insulation disc, wing screws and hardware.

**For DIS3Z:** One (1) disc, one (1) annular disc with rivnuts, one (1) SMALL Locking Inner "V" Band (BSI), one (1) outer casing with latches, one (1) insulation wrap, three (3) insulation disc, wing screws and hardware.



Ø (in.)	DCL (Single Wall)			DAS1 (1" Air Insulated) / DIS1 (1" Wool Insulated)				DIS2 (2" Wool Insulated)		
	Total Length (in)	Effective Length (in)	Product Code	Total Length (in)	Effective Length (in)	Product Code		Total Length (in)	Effective Length (in)	Product Code
5 to 36	1	1	DCLØNTTC	5 1/2	2 3/4	DAS1-ØNTTC	DIS1-ØNTTC	6 1/2	3 3/4	DIS2-ØNTTC

Ø (in.)	DIS4 (4" Wool Insulated)			DIS3Z (3" Insulated)		
	Total Length (in)	Effective Length (in)	Product Code	Total Length (in)	Effective Length (in)	Product Code
5 to 36	8 1/2	5 3/4	DIS4-ØNTTC	7 1/2	4 3/4	DIS3Z-ØNTTC

Materials available: 304, 316.

## Drain Bucket

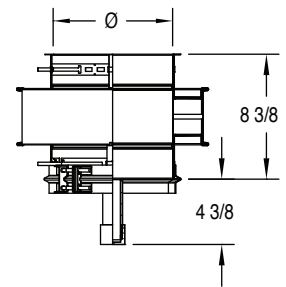
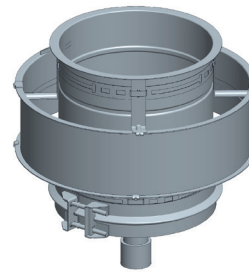
Used at the base of a vertical riser as a drain reservoir and to provide cleanout access. Made of a short Length with a drain tee cap. 1" NPT nipple.

**Included:**

**For DCL:** One (1) small length plus one (1) drain Tee Cap (DTC).

**For DAS1, DIS1, DIS2, and DIS4:** One (1) small length plus one (1) drain Tee Cap (DTC).

**For DIS3Z:** One (1) small length plus one (1) drain Tee Cap (DTC).



Ø (in.)	Effective Length (in)	DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)	DIS3Z (3" Insulated)
Ø5" to Ø36"	8 3/4"	DCLØDB	DAS1-ØDB	DIS1-ØDB	DIS2-ØDB	DIS4-ØDB	DIS3Z-ØDB

Materials available: 304, 316.

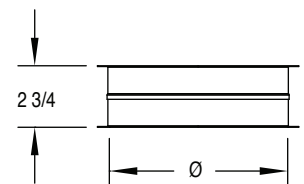
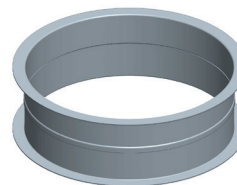
## Round Flanged Hood Adaptor

Used to connect the first duct section to hood. Can be field welded or supplied to Hood manufacturer for installation (by others).

**Included:**

**For DCL:** One (1) Locking Inner "V" Band (BSI).

**For DAS1, DIS1, DIS2, DIS4, and DIS3Z:** One (1) Locking Inner "V" Band (BSI), one (1) Locking Outer Band (BSE).



Ø (in.)	Effective Length (in)	DCL (Single Wall)	DAS1 (1" Air Insulated)	DIS1 (1" Insulated)	DIS2 (2" Insulated)	DIS4 (4" Insulated)	DIS3Z (3" Insulated)
5 to 36	2 3/4	DCLØRFHA	DAS1-ØRFHA	DIS1-ØRFHA	DIS2-ØRFHA	DIS4-ØRFHA	DIS3Z-ØRFHA

Materials available: 304, 316.

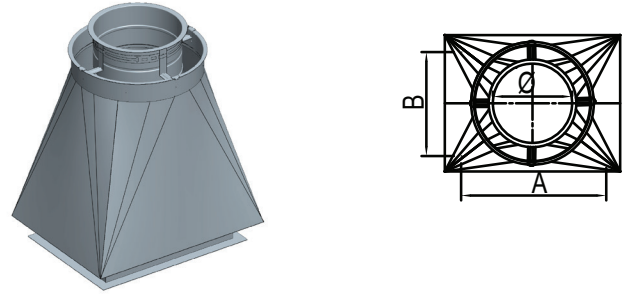
Flow resistance: K = 0.825/Ø

### Square to Round Adaptor

Used to connect a round duct to a hood equipped with a square/rectangular collar or to connect to a square duct.

STR's are a custom part and all requests need to go through the design group at layouts@duravent.com.

Custom parts are non-returnable and may require extra production time.



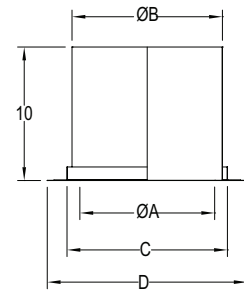
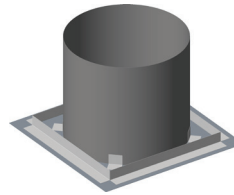
### Grease Duct Roof / Floor Thimble

Used when pipe passes through a combustible roof / floor structure to reduce clearances to combustibles. The RT allows for pipe expansion and contraction the roof. See installation instructions for hole opening for the right clearance of each diameter and other specifications. Effective Length = 0".

**NOTE: NOT AVAILABLE FOR MODEL DCL**

Included:

For DAS1, DIS1, DIS2, and DIS4: One (1) Roof / Floor Thimble only



Ø (in.)	Total Length (in.)	DAS1 (1" Air Insulated)				Product Code	DIS1 (1" Wool Insulated)				Product Code
		ØA - Plate's Hole (in.)	ØB - Wall (in)	C - Roof Square opening dimensions (in)	D - Square Plate dimension (in)		ØA - Plate's Hole (in.)	ØB - Wall (in)	C - Roof Square opening dimensions (in)	D - Square Plate dimension (in)	
5	10	8 1/4	12 1/4	15	18	DAS1-5GDRT	8 1/4	10 1/4	11	14	DIS1-5GDRT
6		9 1/4	14 1/4	18	21	DAS1-6GDRT	9 1/4	11 1/4	12	15	DIS1-6GDRT
7		10 1/4	15 1/4	19	22	DAS1-7GDRT	10 1/4	12 1/4	13	16	DIS1-7GDRT
8		11 1/4	16 1/4	20	23	DAS1-8GDRT	11 1/4	13 1/4	14	17	DIS1-8GDRT
9		12 1/4	17 1/4	21	24	DAS1-9GDRT	12 1/4	14 1/4	15	18	DIS1-9GDRT
10		13 1/4	18 1/4	22	25	DAS1-10GDRT	13 1/4	15 1/4	16	19	DIS1-10GDRT
11		14 1/4	19 1/4	23	26	DAS1-11GDRT	14 1/4	16 1/4	17	20	DIS1-11GDRT
12		15 1/4	21 1/4	26	29	DAS1-12GDRT	15 1/4	17 1/4	18	21	DIS1-12GDRT
13		16 1/4	22 1/4	27	30	DAS1-13GDRT	16 1/4	18 1/4	19	22	DIS1-13GDRT
14		17 1/4	23 1/4	28	31	DAS1-14GDRT	17 1/4	20 1/4	22	25	DIS1-14GDRT
16		19 1/4	25 1/4	30	33	DAS1-16GDRT	19 1/4	22 1/4	24	27	DIS1-16GDRT
18		21 1/4	28 1/4	34	37	DAS1-18GDRT	21 1/4	24 1/4	26	29	DIS1-18GDRT
20		23 1/4	30 1/4	36	39	DAS1-20GDRT	23 1/4	26 1/4	28	31	DIS1-20GDRT
22		25 1/4	32 1/4	38	41	DAS1-22GDRT	25 1/4	28 1/4	30	33	DIS1-22GDRT
24		27 1/4	35 1/4	42	45	DAS1-24GDRT	27 1/4	30 1/4	32	35	DIS1-24GDRT
26		29 1/4	37 1/4	44	47	DAS1-26GDRT	29 1/4	33 1/4	36	39	DIS1-26GDRT
28		31 1/4	39 1/4	46	49	DAS1-28GDRT	31 1/4	35 1/4	38	41	DIS1-28GDRT
30		33 1/4	42 1/4	50	53	DAS1-30GDRT	33 1/4	37 1/4	40	43	DIS1-30GDRT
32		35 1/4	44 1/4	52	55	DAS1-32GDRT	35 1/4	39 1/4	42	45	DIS1-32GDRT
34	37 1/4	46 1/4	54	57	DAS1-34GDRT	37 1/4	41 1/4	44	47	DIS1-34GDRT	
36	39 1/4	49 1/4	58	61	DAS1-36GDRT	39 1/4	44 1/4	48	51	DIS1-36GDRT	

Material options (all): Galvalume

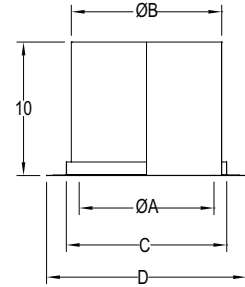
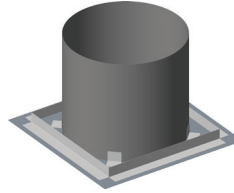
### Grease Duct Roof / Floor Thimble continued

Used when pipe passes through a combustible roof / floor structure to reduce clearances to combustibles. The RT allows for pipe expansion and contraction the roof. See installation instructions for hole opening for the right clearance of each diameter and other specifications. Effective Length = 0".

**NOTE: NOT AVAILABLE FOR MODEL DCL**

Included:

For DAS1, DIS1, DIS2, and DIS4: One (1) Roof / Floor Thimble only



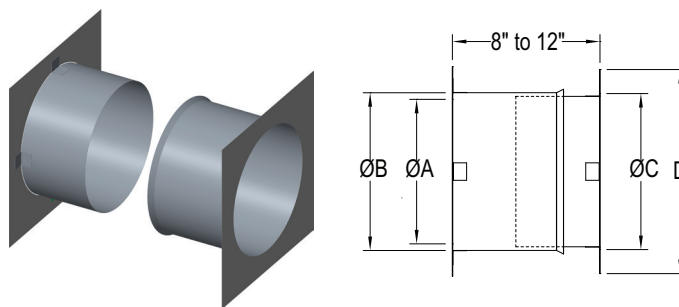
Ø (in.)	Total Length (in.)	DIS2 (2" Wool Insulated)					DIS4 (4" Wool Insulated)				
		ØA - Plate's Hole (in.)	ØB - Wall (in)	C - Roof Square opening dimensions (in)	D - Square Plate dimension (in)	Product Code	ØA - Plate's Hole (in.)	ØB - Wall (in)	C - Roof Square opening dimensions (in)	D - Square Plate dimension (in)	Product Code
5	10	10 1/4	10 1/2	11	14	DIS2-5GDRT	14 1/4	14 1/2	15	18	DIS4-5GDRT
6		11 1/4	11 1/2	12	15	DIS2-6GDRT	15 1/4	15 1/2	16	19	DIS4-6GDRT
7		12 1/4	12 1/2	13	16	DIS2-7GDRT	16 1/4	16 1/2	17	20	DIS4-7GDRT
8		13 1/4	13 1/2	14	17	DIS2-8GDRT	17 1/4	17 1/2	18	21	DIS4-8GDRT
9		14 1/4	14 1/2	15	18	DIS2-9GDRT	18 1/4	18 1/2	19	22	DIS4-9GDRT
10		15 1/4	15 1/2	16	19	DIS2-10GDRT	19 1/4	19 1/2	20	23	DIS4-10GDRT
11		16 1/4	16 1/2	17	20	DIS2-11GDRT	20 1/4	20 1/2	21	24	DIS4-11GDRT
12		17 1/4	17 1/2	18	21	DIS2-12GDRT	21 1/4	21 1/2	22	25	DIS4-12GDRT
13		18 1/4	18 1/2	19	22	DIS2-13GDRT	22 1/4	22 1/2	23	26	DIS4-13GDRT
14		19 1/4	19 1/2	20	23	DIS2-14GDRT	23 1/4	23 1/2	24	27	DIS4-14GDRT
16		21 1/4	21 1/4	22	25	DIS2-16GDRT	25 1/4	25 1/4	26	29	DIS4-16GDRT
18		23 1/4	25 1/4	26	29	DIS2-18GDRT	27 1/4	29 1/4	30	33	DIS4-18GDRT
20		25 1/4	27 1/4	28	31	DIS2-20GDRT	29 1/4	31 1/4	32	35	DIS4-20GDRT
22		27 1/4	29 1/4	30	33	DIS2-22GDRT	31 1/4	33 1/4	34	37	DIS4-22GDRT
24		29 1/4	31 1/4	32	35	DIS2-24GDRT	33 1/4	35 1/4	36	39	DIS4-24GDRT
26		31 1/4	33 1/4	34	37	DIS2-26GDRT	35 1/4	37 1/4	38	41	DIS4-26GDRT
28		33 1/4	35 1/4	36	39	DIS2-28GDRT	37 1/4	39 1/4	40	43	DIS4-28GDRT
30		35 1/4	37 1/4	38	41	DIS2-30GDRT	39 1/4	41 1/4	42	45	DIS4-30GDRT
32	37 1/4	40 1/4	42	45	DIS2-32GDRT	41 1/4	44 1/4	46	49	DIS4-32GDRT	
34	39 1/4	42 1/4	44	47	DIS2-34GDRT	43 1/4	46 1/4	48	51	DIS4-34GDRT	
36	41 1/4	44 1/4	46	49	DIS2-36GDRT	45 1/4	48 1/4	50	53	DIS4-36GDRT	

Material options (all): Galvalume



### Grease Duct Wall Thimble

Used when pipe passes through a combustible wall structure to reduce clearances to combustibles. The WT allows for pipe expansion and contraction of the roof. The part consists of a wall thimble female half and a male wall thimble half that slide in each other to adjust wall thickness from 8" to 12". See installation instructions for hole opening for the right clearance for each models and other specifications. Effective Length = 0".



**NOTE: NOT AVAILABLE FOR MODEL DCL**

**Included:**

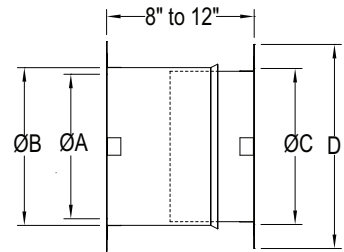
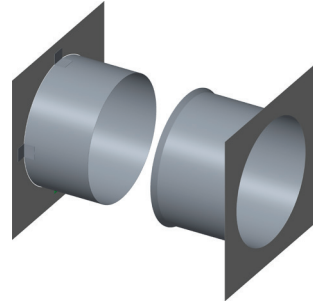
**For DAS1, DIS1, DIS2, and DIS4:** One (1) wall thimble female half, and one (1) wall thimble male half.

Ø (in.)	Total Length (in.)	DAS1 (1" Air Insulated)				Product Code	DIS1 (1" Wool Insulated)				Product Code
		ØA - Plate's Hole (in.)	ØB - Female Wall (in)	C - Male Wall (in)	D - Square Plate dimension (in)		ØA - Plate's Hole (in.)	ØB - Female Wall (in)	C - Male Wall (in)	D - Square Plate dimension (in)	
5	8"	8 1/4	12 1/4	12 5/32	18	DAS1-5GDWT	8 1/4	10 1/4	10 5/32	14	DIS1-5GDWT
6		9 1/4	14 1/4	14 5/32	21	DAS1-6GDWT	9 1/4	11 1/4	11 5/32	15	DIS1-6GDWT
7		10 1/4	15 1/4	15 5/32	22	DAS1-7GDWT	10 1/4	12 1/4	12 5/32	16	DIS1-7GDWT
8		11 1/4	16 1/4	16 5/32	23	DAS1-8GDWT	11 1/4	13 1/4	13 5/32	17	DIS1-8GDWT
9		12 1/4	17 1/4	17 5/32	24	DAS1-9GDWT	12 1/4	14 1/4	14 5/32	18	DIS1-9GDWT
10		13 1/4	18 1/4	18 5/32	25	DAS1-10GDWT	13 1/4	15 1/4	15 5/32	19	DIS1-10GDWT
11		14 1/4	19 1/4	19 5/32	26	DAS1-11GDWT	14 1/4	16 1/4	16 5/32	20	DIS1-11GDWT
12		15 1/4	21 1/4	21 5/32	29	DAS1-12GDWT	15 1/4	17 1/4	17 5/32	21	DIS1-12GDWT
13		16 1/4	22 1/4	22 5/32	30	DAS1-13GDWT	16 1/4	18 1/4	18 5/32	22	DIS1-13GDWT
14		17 1/4	23 1/4	23 5/32	31	DAS1-14GDWT	17 1/4	20 1/4	20 5/32	25	DIS1-14GDWT
16		19 1/4	25 1/4	25 5/32	33	DAS1-16GDWT	19 1/4	22 1/4	22 5/32	27	DIS1-16GDWT
18		21 1/4	28 1/4	28 5/32	37	DAS1-18GDWT	21 1/4	24 1/4	24 5/32	29	DIS1-18GDWT
20		23 1/4	30 1/4	30 5/32	39	DAS1-20GDWT	23 1/4	26 1/4	26 5/32	31	DIS1-20GDWT
22		25 1/4	32 1/4	32 5/32	41	DAS1-22GDWT	25 1/4	28 1/4	28 5/32	33	DIS1-22GDWT
24		27 1/4	35 1/4	35 5/32	45	DAS1-24GDWT	27 1/4	30 1/4	30 5/32	35	DIS1-24GDWT
26		29 1/4	37 1/4	37 5/32	47	DAS1-26GDWT	29 1/4	33 1/4	33 5/32	39	DIS1-26GDWT
28		31 1/4	39 1/4	39 5/32	49	DAS1-28GDWT	31 1/4	35 1/4	35 5/32	41	DIS1-28GDWT
30		33 1/4	42 1/4	42 5/32	53	DAS1-30GDWT	33 1/4	37 1/4	37 5/32	43	DIS1-30GDWT
32		35 1/4	44 1/4	44 5/32	55	DAS1-32GDWT	35 1/4	39 1/4	39 5/32	45	DIS1-32GDWT
34	37 1/4	46 1/4	46 5/32	57	DAS1-34GDWT	37 1/4	41 1/4	41 5/32	47	DIS1-34GDWT	
36	39 1/4	49 1/4	49 5/32	61	DAS1-36GDWT	39 1/4	44 1/4	44 5/32	51	DIS1-36GDWT	

**Material options (all):** Galvalume

### Grease Duct Wall Thimble

Used when pipe passes through a combustibile wall structure to reduce clearances to combustibles. The WT allows for pipe expansion and contraction of the roof. The part consists of a wall thimble female half and a male wall thimble half that slide in each other to adjust wall thickness from 8" to 12". See installation instructions for hole opening for the right clearance for each models and other specifications. Effective Length = 0".



**NOTE: NOT AVAILABLE FOR MODEL DCL**

Included:

For DAS1, DIS1, DIS2, and DIS4: One (1) wall thimble female half, and one (1) wall thimble male half.

Ø (in.)	Total Length (in.)	DIS2 (2" Wool Insulated)				DIS4 (4" Wool Insulated)					
		ØA - Plate's Hole (in.)	ØB - Female Wall (in)	C - Male Wall (in)	D - Square Plate dimension (in)	Product Code	ØA - Plate's Hole (in.)	ØB - Female Wall (in)	C - Male Wall (in)	D - Square Plate dimension (in)	Product Code
5	8"	10 1/4	10 1/2	10 13/32	14	DIS2-5GDWT	14 1/4	14 1/2	14 13/32	18	DIS4-5GDWT
6		11 1/4	11 1/2	11 13/32	15	DIS2-6GDWT	15 1/4	15 1/2	15 13/32	19	DIS4-6GDWT
7		12 1/4	12 1/2	12 13/32	16	DIS2-7GDWT	16 1/4	16 1/2	16 13/32	20	DIS4-7GDWT
8		13 1/4	13 1/2	13 13/32	17	DIS2-8GDWT	17 1/4	17 1/2	17 13/32	21	DIS4-8GDWT
9		14 1/4	14 1/2	14 13/32	18	DIS2-9GDWT	18 1/4	18 1/2	18 13/32	22	DIS4-9GDWT
10		15 1/4	15 1/2	15 13/32	19	DIS2-10GDWT	19 1/4	19 1/2	19 13/32	23	DIS4-10GDWT
11		16 1/4	16 1/2	16 13/32	20	DIS2-11GDWT	20 1/4	20 1/2	20 13/32	24	DIS4-11GDWT
12		17 1/4	17 1/2	17 13/32	21	DIS2-12GDWT	21 1/4	21 1/2	21 13/32	25	DIS4-12GDWT
13		18 1/4	18 1/2	18 13/32	22	DIS2-13GDWT	22 1/4	22 1/2	22 13/32	26	DIS4-13GDWT
14		19 1/4	19 1/2	19 13/32	23	DIS2-14GDWT	23 1/4	23 1/2	23 13/32	27	DIS4-14GDWT
16		21 1/4	21 1/2	21 13/32	25	DIS2-16GDWT	25 1/4	25 1/2	25 13/32	29	DIS4-16GDWT
18		23 1/4	25 1/4	25 5/32	29	DIS2-18GDWT	27 1/4	29 1/4	29 5/32	33	DIS4-18GDWT
20		25 1/4	27 1/4	27 5/32	31	DIS2-20GDWT	29 1/4	31 1/4	31 5/32	35	DIS4-20GDWT
22		27 1/4	29 1/4	29 5/32	33	DIS2-22GDWT	31 1/4	33 1/4	33 5/32	37	DIS4-22GDWT
24		29 1/4	31 1/4	31 5/32	35	DIS2-24GDWT	33 1/4	35 1/4	35 5/32	39	DIS4-24GDWT
26		31 1/4	33 1/4	33 5/32	37	DIS2-26GDWT	35 1/4	37 1/4	37 5/32	41	DIS4-26GDWT
28		33 1/4	35 1/4	35 5/32	39	DIS2-28GDWT	37 1/4	39 1/4	39 5/32	43	DIS4-28GDWT
30		35 1/4	37 1/4	37 5/32	41	DIS2-30GDWT	39 1/4	41 1/4	41 5/32	45	DIS4-30GDWT
32	37 1/4	40 1/4	40 5/32	45	DIS2-32GDWT	41 1/4	44 1/4	44 5/32	49	DIS4-32GDWT	
34	39 1/4	42 1/4	42 5/32	47	DIS2-34GDWT	43 1/4	46 1/4	46 5/32	51	DIS4-34GDWT	
36	41 1/4	44 1/4	44 5/32	49	DIS2-36GDWT	45 1/4	48 1/4	48 5/32	53	DIS4-36GDWT	

Material options (all): Galvalume





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