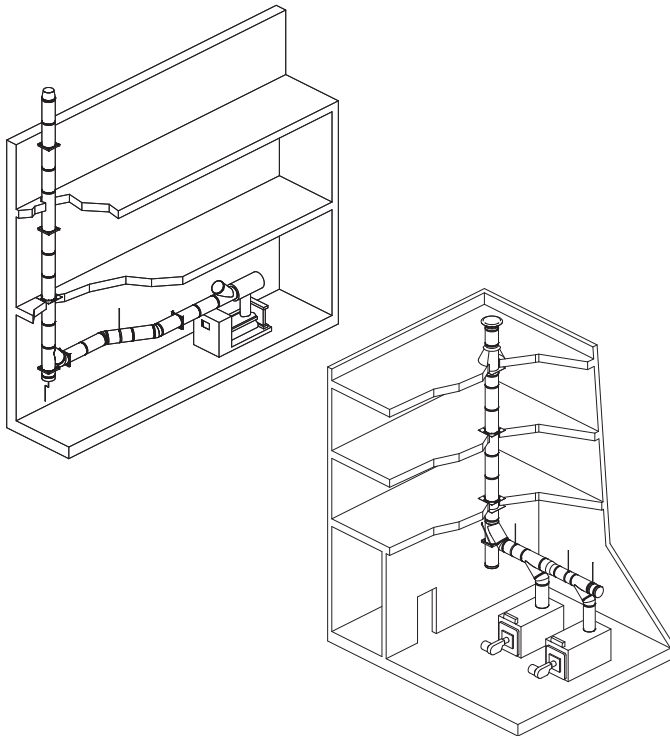


MODEL DIS / DAS SUBMITTAL RECORD

Boiler and Engine Exhaust Chimney Systems

MODELS DIS / DAS



MATERIAL SELECTION	
INNER WALL	OUTER WALL
SS 304	SS 304
SS 316	SS 316
OTHER	GALVALUME
	OTHER

This installation manual will enable you to obtain a safe, efficient and dependable installation of this positive pressure chimney system. Please read and understand these instructions before beginning your installation.

Do not alter or modify the components of this chimney system under any circumstances. Any modification or alteration of the chimney system or approved accessories, including but not limited to the appliance it is connected to, may void the warranty, listings and approvals of this system and could result in an unsafe and potentially dangerous installation.

SUITABLE FOR POSITIVE PRESSURE VENTING APPLICATIONS WITH MAXIMUM 60" WATER COLUMN INTERNAL STATIC PRESSURE AT 1000 DEGREES F.

**SAVE THESE INSTRUCTIONS
FOR FUTURE REFERENCE**

SUBMITTAL RECORD	
PREPARED FOR:	
REFERENCE:	
LOCATION:	
CONTACT:	
TELEPHONE:	FAX:
EMAIL:	
PREPARED BY:	

WARNINGS

FAILURE TO FOLLOW THESE INSTALLATION INSTRUCTIONS COULD CAUSE FIRE, CARBON MONOXIDE POISONING, OR DEATH. IF YOU ARE UNSURE OF INSTALLATION REQUIREMENTS, CALL THE PHONE NUMBER LISTED ON THE BACK OF THESE INSTRUCTIONS.

A MAJOR CAUSE OF CHIMNEY RELATED FIRE IS FAILURE TO MAINTAIN REQUIRED CLEARANCES (AIR SPACES) TO COMBUSTIBLE MATERIALS. IT IS OF UTMOST IMPORTANCE THAT THIS CHIMNEY BE INSTALLED ONLY IN ACCORDANCE WITH THESE INSTRUCTIONS.



Listed to standards:
UL 103 and ULC S604
UL-1978 (DIS only)
ULC/ORD-C959 540°C and 760°C
Report # 3162834

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INTRODUCTION

Duravent Model DIS or DAS Chimney are cylindrical, prefabricated, modular venting systems incorporating a unique extended inner flange designed for both quick assembly and pressure sealing capability. Model DIS incorporates a 2" of mineral fiber insulation while DAS is air insulated. The circular cross section and high quality stainless steel inner flue construction provide for a system with high strength-to-weight ratio and low friction losses.

TESTING / LISTING INFORMATION

Duravent model DIS and DAS venting systems are listed with Intertek Testing Services (ETL) to UL/ULC standards:

U.S.A.

- UL-103
 - 60 in. Positive Pressure Chimney
 - Building Heating Appliance Chimney
 - 1400°F Chimney
- UL-1978 Grease Duct (**DIS only**)

CANADA

- ULC/ORD C959
 - 540°C (1000°F)
 - 760°C (1400°F)
- ULC S604

GENERAL INFORMATION

These instructions comprise both general guidelines and special requirements for all parts in the product line. Before specifying a design or beginning an installation please carefully review these instructions.

Maintenance Notes:

Chimney Cleaning: This applies to cleaning other than standard natural gas chimney applications where minimal maintenance is necessary. Keep your chimney clean. Access should be provided for the inspection and cleaning of all sections of the chimney. Have your chimney cleaned by qualified chimney sweep. It is recommended to use a nylon chimney brush of the correct size. Do not use a brush that will scratch the stainless steel interior of the chimney.

APPLICATION

UL 103 Building Heating Appliance Chimney Listing:

Under this category, model DIS and DAS has 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 1400°F Chimney Listing:

Under this category, model DIS and DAS have been determined suitable or venting flue gases at temperatures not exceeding 760°C (1400°F) under continuous operating conditions from gas, liquid, oil or solid fuel fired appliances. Also complies with brief operation (maximum 10 minutes) at temperatures not exceeding 906°C (1700°F). As such, it is suitable for use with ovens and furnaces as described in the Chimney Selection Chart of NFPA No. 211, in addition to other applications.

UL 103 Positive Pressure Listing:

Under this category, model DIS and DAS have been determined suitable for use at a maximum of 60 inch water column internal pressure.

ULC-C959 540°C and 760°C Industrial Chimneys Listing:

Under this category, model DIS and DAS have been determined suitable for venting flue gases at temperatures not exceeding 760°C (1400°F) under continuous operating conditions from gas, liquid, oil or solid fuel fired appliances. Also complies with brief operation (maximum 10 minutes) at temperatures not exceeding 980°C (1800°F).

SURROUNDINGS / ENCLOSURE

Boiler and Engine Exhaust

Duravent model DIS and DAS chimney is primarily intended to be used in fire resistive noncombustible surroundings or installed unenclosed. They are not intended for use in one or two family residences. **(CAUTION: Do not enclose this chimney in a chase or passageway of ordinary wood or other combustible material).**

Where the chimney extends through any zone of a building (outside that in which the heating appliance connected to it is located), it shall be provided with an enclosure having a fire resistance rating equal to or greater than that of the floor, wall or roof assemblies through which it passes.

Duravent model DIS and DAS chimney may penetrate a combustible floor, wall or roof using the appropriate parts and openings sizes. See section D "Roof & Wall Penetration" for more details.

Where, according to local code, no chase enclosure is necessary, model DIS and DAS chimney may be placed adjacent to walls of combustible construction at the clearance specified on each chimney section and in the individual listing; see "CLEARANCES". Contact local building or fire officials about restrictions and installation inspection requirements in your area.

SYSTEM SIZING

Complete system sizing and capacity information maybe obtained from the "Chimney, Gas Vent, and Fireplace Systems" chapter of the ASHRAE Handbook (go to www.ashrae.org for more information). In spite of these general sizing guidelines, it is most important that the heating appliance, engine or turbine manufacturer's installation instructions are followed. Not following the equipment manufacturer's instructions may result in inadequate chimney performance and/or a violation of the equipment manufacturer's installation requirements.

PART NUMBERS

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

Example:

DIS 36" length with inside diameter 14" made of ss316 inner flue and ss304 outer casing.

DIS 14 L36 BC
Model Dia. Part Material

DAS 30° elbow with inside diameter 22" made of ss304 inner flue and galvalume outer casing.

DAS 22 E30 CE
Model Dia. Part Material

DIS wall support for 8" diameter chimney made of galvalume.

DIS 8 WS E
Model Dia. Part Material

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

CLEARANCES

DIS

Minimum air space clearance to combustible construction to model DIS Chimney is 1".

For non-combustible construction, maintain clearances as required for installation, access for inspection or per local code.

Inside diameter	B.H.A Chimney	1400°F Chimney
Ø5" to Ø36"	1"	1"

Table 1 - Minimum air space clearance to combustible construction model DIS

DAS

Minimum air space clearance to combustible construction to DAS chimney is 4".

Inside diameter	B.H.A Chimney	1400°F Chimney
Ø5" to Ø36"	4"	4"

Table 2

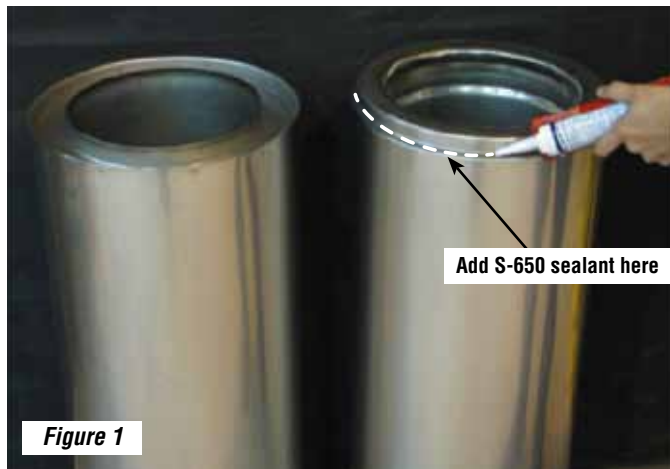
CHIMNEY AND FITTING JOINT ASSEMBLY

All components have a male and female end. The installation orientation is indicated on the labeling of each chimney section with an arrow. The arrow indicates the direction of the flow. Clean all inner and outer surfaces of the male and female ends with an appropriate organic solvent, such as acetone, Mek, or other commercial degreaser.

1. Apply a bead of S-650 sealant about 1/8" thick around the male end of chimney (see **figure 1**). See **table 3** for approved sealants.
2. Insert the female end, of another section of chimney, over male end with sealant (see **figure 2**).
3. Insert the assembly band around (see **figure 3**) the joint of the two sections assembled in step 2. A small bead of S-650 can be applied on the inner groove of the band prior to installation for better leak tightness.
4. Using a phillips screwdriver, connect the two ends of the band as shown in **figure 4**.
5. Where the chimney is installed outside, an exterior sealant S-375 must be applied at the upper joint of the band and the outer casing, see **figure 4**.

SEALANT USAGE				
Interior Installation				
Sealant Application	Supplier	Model	Color	Max. Temp.
Joints	Duravent	S-650	red	650°F
Exterior Installation				
Sealant Application	Supplier	Model	Color	Max. Temp.
Joints	Duravent	S-650	red	650°F
Outer Band	Duravent	S-375	gray	375°F

Table 3



CAUTIONS

- DO NOT ALLOW SCREWS TO PENETRATE THE INNER FLUE. THIS CAN CAUSE CORROSION, GAS LEAKAGE OR EXPANSION FAILURE.**
- NEVER USE SCREWS THROUGH THE OUTER CASING OF AN ADJUSTABLE LENGTH OR EXPANSION JOINT.**
- OBSERVE ADEQUATE SAFETY MEASURES WHEN USING A DEGREASER.**

SUPPORT METHODS AND HEIGHT LIMITS

- Several support and guiding methods are used to anchor a chimney against upward, downward and angular displacement.
- These supports and guides used with thermal expansion devices, prevent bending stresses on the chimney elbows and joints.
- Supports and guiding methods and installation are described in Section C. Certain limitations apply for proper installation of supports and guides. See **table 4**.

MAXIMUM CHIMNEY HEIGHTS AND SUPPORT METHOD FOR MODEL DIS AND DAS						
Inside Diameter (in)	Anchor Plate (AP)	Anchor Plate Ventilated (APV)		Wall Support (WS)		Tee (T)
	Building Metal Frame	Building Metal Frame	Building Wood Frame	Building Metal Frame	Building Wood Frame	
5	147	133	133	147	61	105
6	128	116	116	128	53	92
8	103	93	93	103	43	74
10	86	78	78	86	35	61
12	73	66	66	73	30	53
14	64	58	58	64	27	46
16	57	52	52	57	24	41
18	53	48	48	53	22	38
20	48	43	43	48	20	34
22	44	40	40	44	18	31
24	37	34	34	37	15	27
26	35	32	32	35	14	25
28	33	30	30	33	13	23
30	31	28	28	31	13	22
32	29	26	26	29	12	21
34	27	25	25	27	11	20
36	26	23	23	26	11	18

Table 4 - Dimensions are in feet

THERMAL EXPANSION

Good installation practice requires that any length of exhaust system between two fixed points subject to more than 1/4 inch expansion must have an Adjustable Length (LA) or Bellows Joint (LB) to compensate for expansion. Model DIS and DAS will expand approximately 1 inch for every 100°F temperature rise per 100 feet of chimney. To accommodate chimney movements, any wall guide or floor guide must be located away from the locking band.

It is essential that these parts be properly installed and provided with adequate support and guidance to prevent binding or excessive bending forces. (See detailed installation information contained in the Installation Instructions Manual on **page 22**, *Thermal Expansion*).

CHIMNEY WEIGHT

Chimney weight is given in pounds per foot of chimney for each diameter. It is important to know the weight of the chimney section for chimney support or guiding. Chimney weight (**table 5**) along with maximum chimney height (**table 4**) are necessary to calculate the proper anchor strength needed with wall supports (WS), Anchor Plate (AP) supports and Suspension Bands (SB).

CHIMNEY WEIGHT IN LB/FT		
Inside diameter	Model DIS	Model DAS
5	7	4
6	8	5
8	10	6
10	12	8
12	14	9
14	16	10
16	18	12
18	20	13
20	22	14
22	24	15
24	28	19
26	30	20
28	32	21
30	34	23
32	36	24
34	38	25
36	40	27

Table 5

IMPORTANT NOTE:

If more than 1/4" of thermal expansion is expected between a stationary point and the tee, the use of an expansion length and a two axis support is recommended to minimize bending moments on the tee (see **table 6**).

Gas Temperature Rise	Maximum Length	Expansion
200°F	12'0"	0.25"
300°F	8'0"	0.25"
400°F	6'0"	0.25"
500°F	5'0"	0.25"
600°F	4'0"	0.25"
700°F	3'6"	0.25"
800°F	3'0"	0.25"
900°F	2'6"	0.25"
1000°F	2'0"	0.25"




Note: 60°F - 70°F ambient T°



Table 6 - Maximum allowable length between two fixed points without expansion length

DIS/DAS LABELS

The labels supplied for product identification are shown here and indicates the flow of the flue gases in the venting system.

Install the components with the arrow towards the termination of the DIS/DAS venting system.

<p>UL-103 ULC-S604 ORD-C959</p>	<p>LISTED / HOMOLOGUÉ</p> <p>BUILDING HEATING APPLIANCE CHIMNEY / CHEMINÉE POUR APPAREIL DE CHAUFFAGE INDUSTRIAL 1000°F OR LESS CHIMNEY / CHEMINÉE INDUSTRIELLE 540°C OU MOINS INDUSTRIAL 1400°F OR LESS CHIMNEY / CHEMINÉE INDUSTRIELLE 760°C OU MOINS</p>	 Intertek 4002244
<p>UL-1978 GREASE DUCT / CONDUIT D'ÉVACUATION DE GRAISSE: <u>DIS ONLY / DIS SEULEMENT</u> Ø5" TO Ø36" / Ø5" À Ø36"</p>		
<p>FOR VENTING SOLID(US ONLY), LIQUID AND GAS-FIRED APPLIANCES / POUR ÉVACUER DES COMBUSTIBLES SOLIDES (US SEULEMENT), LIQUIDES ET GAZEUX</p>		
<p>MODEL DIS / DAS MODÈLE</p>		
<p>MINIMUM CLEARANCE (AIR SPACE) TO COMBUSTIBLE MATERIALS AND BUILDING INSULATION:</p> <p>1" DIS FOR B.H.A. / 1000°F / 1400°F CHIMNEY 2" DIS FOR GREASE DUCT 4" DAS FOR B.H.A. / 1000°F / 1400°F CHIMNEY</p> <p>WHEN A CHIMNEY PASSES THROUGH A COMBUSTIBLE WALL, THE DURAVENT WALL FIRESTOP SHALL BE USED TO MAINTAIN A 2" DIS / 4" DAS CLEARANCES TO COMBUSTIBLE CROSSING A COMBUSTIBLE WALL IS NOT PERMITTED FOR DIAMETERS LARGER THAN 10" INSIDE DIAMETER</p> <p>CAUTION: DO NOT ENCLOSE WITH COMBUSTIBLE MATERIALS</p> <p>RATED FOR USED AT MAXIMUM 60 INCH WATER COLUMN INTERNAL PRESSURE WHEN USED IN POSITIVE PRESSURE APPLICATION</p> <p>FOR INSTALLATION AS REQUIRED FOR DOUBLE WALL METAL CHIMNEYS, <u>ALWAYS FOLLOW INSTALLATION INSTRUCTION</u> FROM DURAVENT.</p> <p>SUITABLE FOR EXTERIOR AND INTERIOR INSTALLATION</p>		<p>ESPACE (D'AIR) MINIMAL AUX MATIÈRES COMBUSTIBLE ET AUX ISOLANTS DE LA BATISSE:</p> <p>1" DIS POUR A.C.B. / 540°C / 760°C CHEMINÉE 2" DIS POUR CONDUIT D'ÉVACUATION DE GRAISSE 4" DAS POUR A.C.B. / 540°C / 760°C CHEMINÉE</p> <p>QUAND UNE CHEMINÉE TRAVERSE UN MUR FAIT DE MATÉRIAUX COMBUSTIBLES, LE COUPE-FEU MURAL DE DURAVENT DOIT ÊTRE UTILISÉ POUR MAINTENIR UN ESPACE D'AIR DE 2" DIS / 4" DAS AUX MATÉRIAUX COMBUSTIBLES IL N'EST PAS PERMIS DE TRAVERSER UN MUR COMBUSTIBLE POUR LES INSTALLATIONS DE PLUS DE 10" DIAMÈTRE INTERNE</p> <p>ATTENTION: NE PAS ENFERMER DANS UNE ENCEINTE COMBUSTIBLE</p> <p>CLASSÉ POUR UNE UTILISATION A PRESSION POSITIVE INTERNE MAXIMALE DE 60 POUÇES DE COLONNE D'EAU</p> <p>POUR INSTALLATION TEL QUE REQUISE POUR DES CHEMINÉES DOUBLE PAROIES MÉTALLIQUES, <u>TOUJOURS SUIVRE LE MANUEL D'INSTALLATION FOURNIT PAR DURAVENT.</u></p> <p>UTILISABLE À L'EXTÉRIEUR ET À L'INTÉRIEUR</p>
 Member of M&G Group		LAVAL, QC CANADA NP324 REV.0

<p>DIS / DAS</p>	 Intertek 4002244	<p>DIS / DAS</p>
<p>ACCESSORIES</p>		<p>ACCESSOIRES</p>
<p>LISTED</p> <p>BUILDING HEATING APPLIANCE CHIMNEY INDUSTRIAL 1000°F OR LESS CHIMNEY INDUSTRIAL 1400°F OR LESS CHIMNEY</p> <p>GREASE DUCT: <u>DIS ONLY</u></p> <p><u>ALWAYS FOLLOW INSTALLATION INSTRUCTION</u> FROM DURAVENT.</p> <p>SUITABLE FOR EXTERIOR AND INTERIOR INSTALLATION</p>		<p>HOMOLOGUÉ</p> <p>CHEMINÉE POUR APPAREIL DE CHAUFFAGE CHEMINÉE INDUSTRIELLE 540°C OU MOINS CHEMINÉE INDUSTRIELLE 760°C OU MOINS</p> <p>CONDUIT D'ÉVACUATION DE GRAISSE: <u>DIS SEULEMENT</u></p> <p><u>TOUJOURS SUIVRE LE MANUEL D'INSTALLATION</u> FOURNIT PAR DURAVENT.</p> <p>UTILISABLE À L'EXTÉRIEUR ET À L'INTÉRIEUR</p>
 Member of M&G Group		LAVAL, QC CANADA NP325 REV.0

VENT LENGTHS

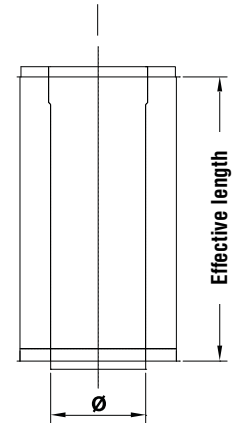
Coding logic:

This document contains a description of each of the parts for the DIS/DAS Durastack™ system, as well as their respective application.

The following examples of our coding system should make it easier for you to identify or order them.

Material code definitions:

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



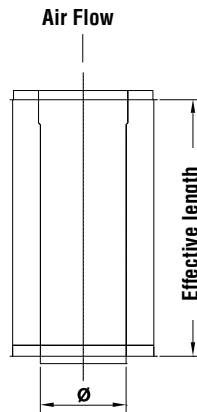
Example		
DIS14L36BC	DAS22E30CE	DIS8WSF
DIS Model	DAS Model	DIS Model
14" Inside Diameter	22" Inside Diameter	8" Diameter
L36 36" Length	E30 30° Elbow	WS Wall Support
BC Inner/Outer Material	CE Inner/Outer Material	F Inner/Outer

Table 7

Adjustable Vent Lengths			
Ø (in.)	Effective Length (in.)	Product Code	
		DIS	DAS
5 to 36	8 to 26	DISØLA	DASØLA

Used to adjust to fit odd dimensions and to compensate for thermal expansion.
 Not suitable for positive pressure applications.
 Locking band included.
 Graphite packing included.
 Flow resistance: K - 0.4 (eff. length [ft] / Ø [in])
 K = 0.25 (eff. length [ft] / Ø [in])
 Materials available: 304, 316, Galvalume

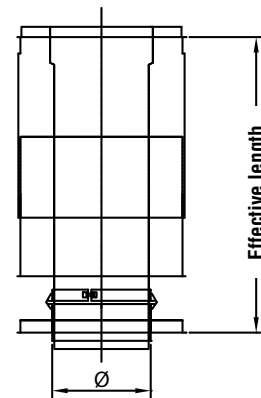
Figure 6 - DIS/DAS Adjustable Vent Lengths



Vent Lengths				
Ø (in.)	Length (in.)	Effective Length (in.)	Product Code	
			DIS	DAS
5 to 36	12	11-3/8	DISØL12	DASØL12
5 to 36	18	17-3/8	DISØL18	DASØL18
5 to 36	24	23-3/8	DISØL24	DASØL24
5 to 36	36	35-3/8	DISØL36	DASØL36

Locking band included.
 Flow resistance: K - 0.4 (eff. length [ft] / Ø [in])
 K = 0.25 (eff. length [ft] / Ø [in])
 For engine or turbine exhaust
 Materials available: 304, 316, Galvalume

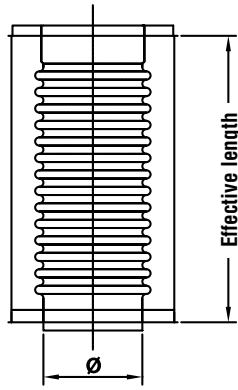
Figure 5 - DIS/DAS Vent Lengths



Variable Vent Lengths			
Ø (in.)	Effective Length (in.)	Product Code	
		DIS	DAS
5 to 36	4 to 26	DISØLV	DASØLV

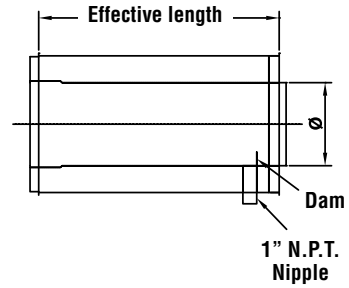
Used to adjust to fit odd dimensions.
 Not used for thermal expansion.
 Can be used in positive pressure applications.
 Locking band included.
 Flow resistance: K - 0.4 (eff. length [ft] / Ø [in])
 K = 0.25 (eff. length [ft] / Ø [in])
 For engine or turbine exhaust
 Materials available: 304, 316, Galvalume

Figure 7 - DIS/DAS Variable Lengths



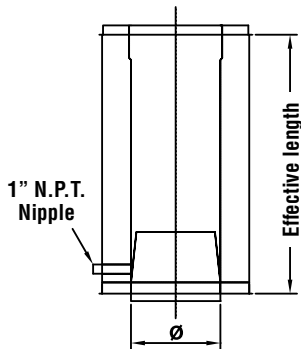
Bellows Vent Length			
Ø (in.)	Effective Length (in.)	Product Code	
		DIS	DAS
5 to 36	8 to 26	DISØLB	DASØLB
For diameters larger than 24", the part will require special ordering and additional lead time will apply. Compression max = 3" Used to compensate for thermal expansion and to minimize vibration. Locking band included. Flow resistance: $K = 0.4$ (eff. length [ft] / Ø [in]) $K = 0.25$ (eff. length [ft] / Ø [in]) For engine or turbine exhaust Materials available: 304, 316, Galvalume			

Figure 8 - DIS/DAS Bellows Vent Length



Horizontal Drain Length			
Ø (in.)	Effective Length (in.)	Product Code	
		DIS	DAS
5 to 36	17-3/8	DISØHDL	DASØHDL
Locking band included. Flow resistance: $K = 0.4$ (eff. length [ft] / Ø [in]) Materials available: 304, 316, Galvalume			

Figure 10 - DIS/DAS Horizontal Drain Length



Drain Length			
Ø (in.)	Effective Length (in.)	Product Code	
		DIS	DAS
5 to 36	17-3/8	DISØDL	DASØDL
Used to drain rainwater or condensation from inner wall. Locking band included. Flow resistance: $K = 0.25$ Materials available: 304, 316, Galvalume			

Figure 9 - DIS/DAS Drain Length

ELBOWS



Ø (in.)	Angle	Offset (in.)	Height (in.)	Product Code	
				DIS	DAS
5	3°	N/A	3-19/32	DIS5E3	DAS5E3
6	3°	N/A	3-5/8	DIS6E3	DAS6E3
8	3°	N/A	3-11/16	DIS8E3	DAS8E3
10	3°	N/A	3-3/4	DIS10E3	DAS10E3
12	3°	N/A	3-25/32	DIS12E3	DAS12E3
14	3°	N/A	3-27/32	DIS14E3	DAS14E3
16	3°	N/A	3-29/32	DIS16E3	DAS16E3
18	3°	N/A	3-15/16	DIS18E3	DAS18E3
20	3°	N/A	4	DIS20E3	DAS20E3
22	3°	N/A	4-1/16	DIS22E3	DAS22E3
24	3°	N/A	4-3/32	DIS24E3	DAS24E3
26	3°	N/A	4-5/32	DIS26E3	DAS26E3
28	3°	N/A	4-7/32	DIS28E3	DAS28E3
30	3°	N/A	4-1/4	DIS30E3	DAS30E3
32	3°	N/A	4-5/16	DIS32E3	DAS32E3
34	3°	N/A	4-3/8	DIS34E3	DAS34E3
36	3°	N/A	4-13/32	DIS36E3	DAS36E3

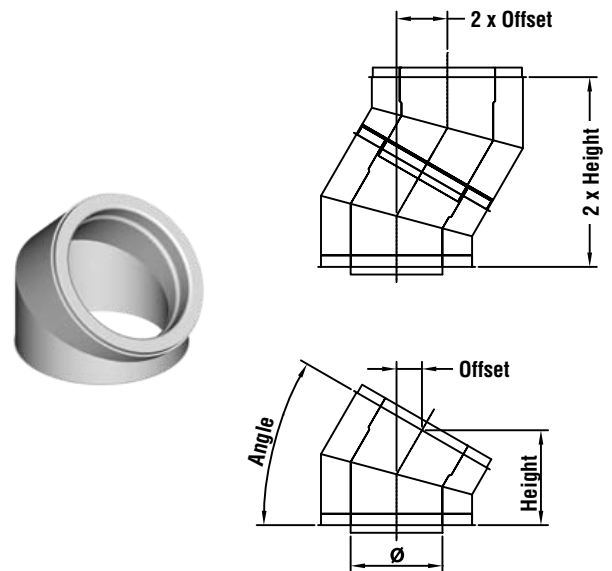
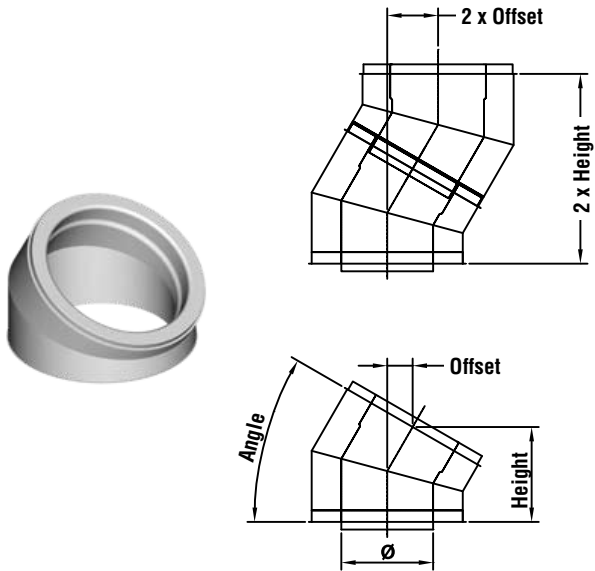
Flow resistance: $K = 0.03$
 Used to change direction of the stack or to provide offset.
 3° Elbows provide a minimum slope for horizontal run.
 Locking band included. 3° Elbows come in pairs.
 Materials available: 304, 316, Galvalume

Figure 11 - DIS/DAS 3-Degree Elbows

Ø (in.)	Angle	Offset (in.)	Height (in.)	Product Code	
				DIS	DAS
5	15°	11/16	5-7/16	DIS5E15	DAS5E15
6	15°	3/4	5-9/16	DIS6E15	DAS6E15
8	15°	3/4	5-7/8	DIS8E15	DAS8E15
10	15°	13/16	6-1/8	DIS10E15	DAS10E15
12	15°	13/16	6-3/8	DIS12E15	DAS12E15
14	15°	7/8	6-5/8	DIS14E15	DAS14E15
16	15°	7/8	6-7/8	DIS16E15	DAS16E15
18	15°	15/16	7-1/8	DIS18E15	DAS18E15
20	15°	15/16	7-3/8	DIS20E15	DAS20E15
22	15°	1	7-11/16	DIS22E15	DAS22E15
24	15°	1	7-15/16	DIS24E15	DAS24E15
26	15°	1-1/16	8-3/16	DIS26E15	DAS26E15
28	15°	1-1/8	8-7/16	DIS28E15	DAS28E15
30	15°	1-1/8	8-11/16	DIS30E15	DAS30E15
32	15°	1-3/16	8-15/16	DIS32E15	DAS32E15
34	15°	1-3/16	9-3/16	DIS34E15	DAS34E15
36	15°	1-1/4	9-1/2	DIS36E15	DAS36E15

Flow resistance: $K = 0.06$
 Materials available: 304, 316, Galvalume

Figure 12 - DIS/DAS 15-Degree Elbows



Ø (in.)	Angle	Offset (in.)	Height (in.)	Product Code	
				DIS	DAS
5	30°	1-11/16	6-5/16	DIS5E30	DAS5E30
6	30°	1-3/4	6-9/16	DIS6E30	DAS6E30
8	30°	1-7/8	7-1/16	DIS8E30	DAS8E30
10	30°	2	7-9/16	DIS10E30	DAS10E30
12	30°	2-1/8	8-1/16	DIS12E30	DAS12E30
14	30°	2-1/4	8-9/16	DIS14E30	DAS14E30
16	30°	2-3/8	9-1/16	DIS16E30	DAS16E30
18	30°	2-9/16	9-9/16	DIS18E30	DAS18E30
20	30°	2-11/16	10-1/16	DIS20E30	DAS20E30
22	30°	2-13/16	10-9/16	DIS22E30	DAS22E30
24	30°	2-15/16	11-1/16	DIS24E30	DAS24E30
26	30°	3-1/16	11-9/16	DIS26E30	DAS26E30
28	30°	3-3/16	12-1/16	DIS28E30	DAS28E30
30	30°	3-5/16	12-9/16	DIS30E30	DAS30E30
32	30°	3-1/2	13-1/16	DIS32E30	DAS32E30
34	30°	3-5/8	13-9/16	DIS34E30	DAS34E30
36	30°	3-3/4	14-1/16	DIS36E30	DAS36E30

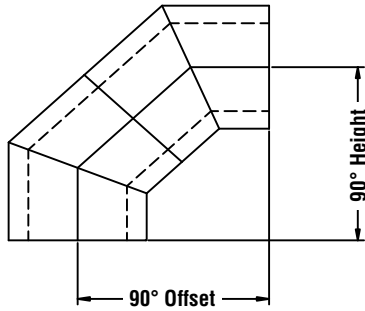
Flow resistance: K = 0.12
Materials available: 304, 316, Galvalume

Ø (in.)	Angle	Offset (in.)	Height (in.)	Product Code	
				DIS	DAS
5	45°	2-13/16	6-15/16	DIS5E45	DAS5E45
6	45°	2-15/16	7-1/4	DIS6E45	DAS6E45
8	45°	3-1/4	8	DIS8E45	DAS8E45
10	45°	3-9/16	8-11/16	DIS10E45	DAS10E45
12	45°	3-13/16	9-3/8	DIS12E45	DAS12E45
14	45°	4-1/8	10-1/8	DIS14E45	DAS14E45
16	45°	4-7/16	10-13/16	DIS16E45	DAS16E45
18	45°	4-11/16	11-1/2	DIS18E45	DAS18E45
20	45°	5	12-13/16	DIS20E45	DAS20E45
22	45°	5-5/16	12-15/16	DIS22E45	DAS22E45
24	45°	5-5/8	13-5/8	DIS24E45	DAS24E45
26	45°	5-7/8	14-5/16	DIS26E45	DAS26E45
28	45°	6-3/16	15-1/16	DIS28E45	DAS28E45
30	45°	6-1/2	15-3/4	DIS30E45	DAS30E45
32	45°	6-3/4	16-7/16	DIS32E45	DAS32E45
34	45°	7-1/16	17-3/16	DIS34E45	DAS34E45
36	45°	7-3/8	17-7/8	DIS36E45	DAS36E45

Flow resistance: K = 0.15
Materials available: 304, 316, Galvalume

Figure 13 - DIS/DAS 30-Degree Elbows

Figure 14 - DIS/DAS 45-Degree Elbows

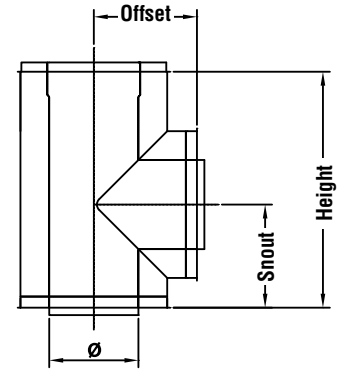


Ø (in.)	90° Offset (in.)	90° Height (in.)
5	9-23/32	9-27/32
6	10-5/32	10-5/16
8	11-7/32	11-11/32
10	12-7/32	12-5/16
12	13-1/8	13-5/16
14	14-3/16	14-3/8
16	15-7/32	15-5/16
18	16-1/8	16-5/16
20	17-19/32	18-11/32
22	18-7/32	18-11/32
24	19-1/4	19-9/32
26	20-5/32	20-9/32
28	21-7/32	21-11/32
30	22-7/32	22-9/32
32	23-5/32	23-9/32
34	24-7/32	24-11/32
36	25-7/32	25-5/16

Flow resistance: $K = 0.3$
 Materials available: 304, 316, Galvalume

Figure 15 - DIS/DAS 90 - Degree Offset (using two 45° elbows)

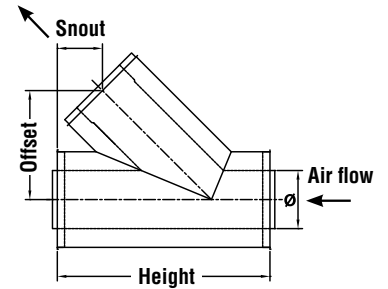
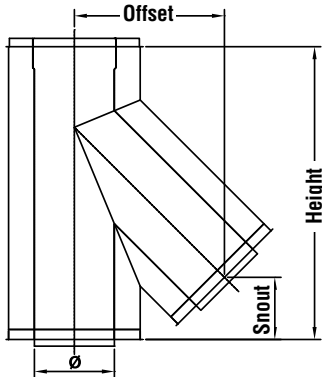
VENTING TEES



Ø (in.)	Angle	Offset (in.)	Height (in.)	Snout (in.)	Product Code	
					DIS	DAS
5	90°	6-1/2	15	6-1/2	DIS5T90	DAS5T90
6	90°	7	16	7	DIS6T90	DAS6T90
8	90°	8	18	8	DIS8T90	DAS8T90
10	90°	9	20	9	DIS10T90	DAS10T90
12	90°	10	22	10	DIS12T90	DAS12T90
14	90°	11	24	11	DIS14T90	DAS14T90
16	90°	12	26	12	DIS16T90	DAS16T90
18	90°	13	28	13	DIS18T90	DAS18T90
20	90°	14	30	14	DIS20T90	DAS20T90
22	90°	15	32	15	DIS22T90	DAS22T90
24	90°	16	34	16	DIS24T90	DAS24T90
26	90°	17	36	17	DIS26T90	DAS26T90
28	90°	18	38	18	DIS28T90	DAS28T90
30	90°	19	40	19	DIS30T90	DAS30T90
32	90°	20	42	20	DIS32T90	DAS32T90
34	90°	21	44	21	DIS34T90	DAS34T90
36	90°	22	46	22	DIS36T90	DAS36T90

Used to change direction at 90° breeching or inspection access.
 Do not use in diesel/turbine applications.
 Available with smaller snout Ø Code: DISØT90BØ/DASØT90BØ
 Locking band included.
 Flow resistance: $K = 1.25$
 Materials available: 304, 316, Galvalume

Figure 16 - DIS/DAS 90-Degree Tees



Ø (in.)	Angle	Offset (in.)	Height (in.)	Snout (in.)	Product Code	
					DIS	DAS
5	45°	10-7/16	20-5/8	4-5/16	DIS5T45	DAS5T45
6	45°	11-5/16	22-1/16	4-11/16	DIS6T45	DAS6T45
8	45°	13	24-7/8	5-3/8	DIS8T45	DAS8T45
10	45°	14-3/4	27-11/16	6-1/8	DIS10T45	DAS10T45
12	45°	16-7/16	30-9/16	6-13/16	DIS12T45	DAS12T45
14	45°	18-1/8	33-3/8	7-1/2	DIS14T45	DAS14T45
16	45°	19-7/8	36-3/16	8-1/4	DIS16T45	DAS16T45
18	45°	21-9/16	39	8-15/16	DIS18T45	DAS18T45
20	45°	23-1/4	41-7/8	9-5/8	DIS20T45	DAS20T45
22	45°	24-15/16	44-11/16	10-5/16	DIS22T45	DAS22T45
24	45°	26-11/16	47-1/2	11-1/16	DIS24T45	DAS24T45
26	45°	28-3/8	50-5/16	11-3/4	DIS26T45	DAS26T45
28	45°	30-1/16	53-3/16	12-7/16	DIS28T45	DAS28T45
30	45°	31-13/16	56	13-3/16	DIS30T45	DAS30T45
32	45°	33-1/2	58-13/16	13-7/8	DIS32T45	DAS32T45
34	45°	35-3/16	61-5/8	14-9/16	DIS34T45	DAS34T45
36	45°	36-15/16	64-1/2	15-5/16	DIS36T45	DAS36T45

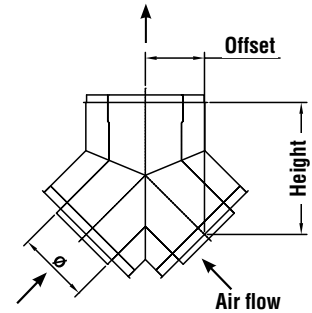
Used to change direction at 45° breeching or inspection access.
 Available with smaller snout Ø Code: DISØT45BØ/DASØT45BØ
 Available with double snout Code: DISØTD45/DASØTD45
 Locking band included.
 Flow resistance: K = 0.4
 Materials available: 304, 316, Galvalume

Figure 17 - DIS/DAS 45-Degree Tees

Ø (in.)	Product Code	
	DIS	DAS
5 to 36	DISØT45RV	DASØT45RV

Used in combination with the relief valve and flange adaptor.
 Same dimensions as 45° tee.
 Locking band included.
 Relief valve not included.
 Flow resistance: K = 0.4
 Materials available: 304, 316, Galvalume

Figure 18 - DIS/DAS 45-Degree Tee Relief Valve

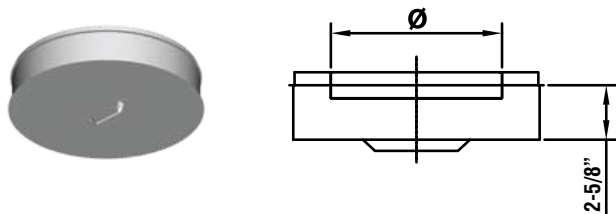


Ø (in.)	Offset (in.)	Height (in.)	Product Code	
			DIS	DAS
5	4-9/16	10-7/16	DIS5TY	DAS5TY
6	4-15/16	11	DIS6TY	DAS6TY
8	5-5/8	12-1/8	DIS8TY	DAS8TY
10	6-5/16	13-1/4	DIS10TY	DAS10TY
12	7-1/16	14-3/8	DIS12TY	DAS12TY
14	7-3/4	15-1/2	DIS14TY	DAS14TY
16	8-7/16	16-9/16	DIS16TY	DAS16TY
18	9-3/16	17-11/16	DIS18TY	DAS18TY
20	9-7/8	18-13/16	DIS20TY	DAS20TY
22	10-9/16	19-15/16	DIS22TY	DAS22TY
24	11-5/16	21-1/16	DIS24TY	DAS24TY
26	12	22-3/16	DIS26TY	DAS26TY
28	12-11/16	23-5/16	DIS28TY	DAS28TY
30	13-7/16	24-7/16	DIS30TY	DAS30TY
32	14-1/8	25-9/16	DIS32TY	DAS32TY
34	14-13/16	26-11/16	DIS34TY	DAS34TY
36	15-9/16	27-13/16	DIS36TY	DAS36TY

Used to provide low-pressure drop for joining appliances.
 Offers same diameter on all branches.
 Available with smaller snout Ø Code: DISØTYØ/DASØTYØ
 Locking band included.
 Flow resistance: K = 0.6
 Materials available: 304, 316, Galvalume

Figure 19 - DIS/DAS 45-Degree Tee Y

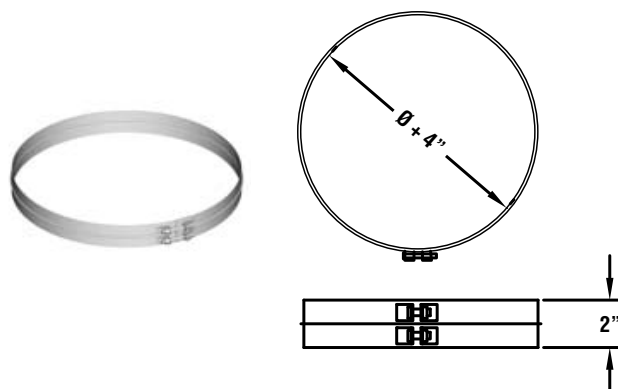
VENTING ACCESSORIES



Ø (in.)	Product Code	
	DIS	DAS
5 to 36	DISØTC	DASØTC

Used to close and seal unused tee ports.
Locking band included.
Materials available: 304, 316, Galvalume

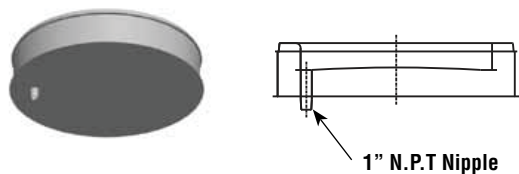
Figure 20 - DIS/DAS Tee Cap



Ø (in.)	Product Code (DIS & DAS)
5 to 36	DISØBSC

Used to clamp and seal parts together (included with all vent components).
To be sealed with outer joint sealant (not included).
Materials available: 304

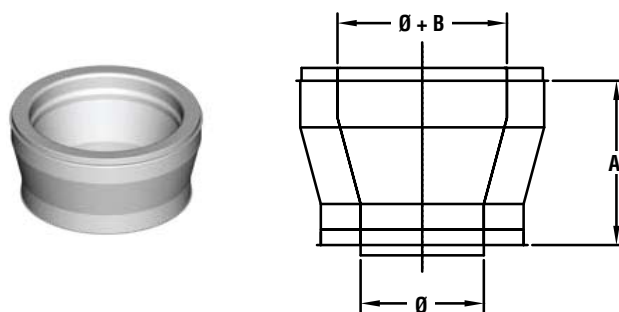
Figure 22 - DIS/DAS Locking Band



Ø (in.)	Product Code	
	DIS	DAS
5 to 36	DISØDTC	DASØDTC

Used to close and seal unused tee ports and to provide drain point for rain or condensation.
Locking band included.
Materials available: 304, 316, Galvalume

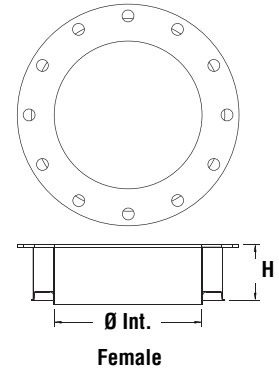
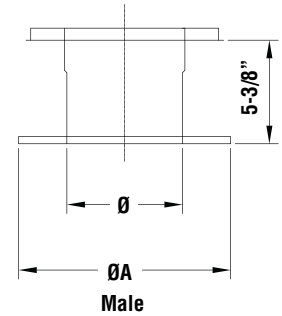
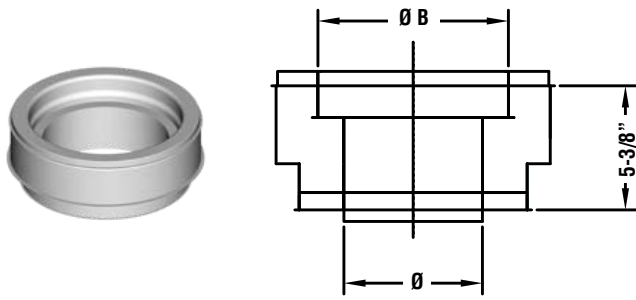
Figure 21 - DIS/DAS Drain Tee Cap



Step	A (in.)	Product Code	
		DIS	DAS
One Ø Increase	8	DISØTINS1	DASØTINS1
Two Ø Increase	12	DISØTINS2	DASØTINS2
Three Ø Increase	16	DISØTINS3	DASØTINS3

Ø = 5" to 36"
B = 2" (S1), 4" (S2) or 6" (S3)
Used when a pipe diameter change is required. Considered as a structural part.
Locking band included.
Flow resistance: $K = 0.51 [1 - (\frac{\delta}{\delta+B})^2]^2 / (\frac{\delta}{\delta+B})^4$
Materials available: 304, 316, Galvalume

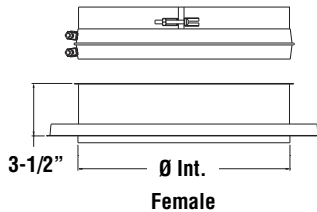
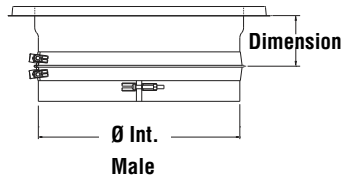
Figure 23 - DIS/DAS Tapered Increaser



Ø (in.)	ØB (in.)	Product Code	
		DIS	DAS
5 to 32	8 to 36	DISØIN(ØB)	DASØIN(ØB)

Used when a pipe diameter change is required in a small space.
 Not considered as a structural part.
 More restrictive than the tapered increaser.
 Locking band included.
 Flow resistance: $K = [1 - (\frac{\delta}{\delta+B})^2]^2 / (\frac{\delta}{\delta+B})^4$
 Materials available: 304, 316, Galvalume

Figure 24 - DIS/DAS Step Increaser



Ø (in.)	Product Code - Male (DIS & DAS)	Product Code - Female (DIS & DAS)
5 to 36	DISØSWA	DISØFSWA

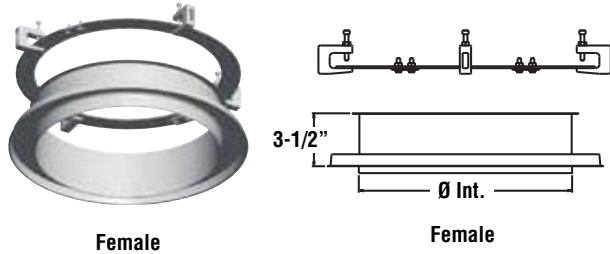
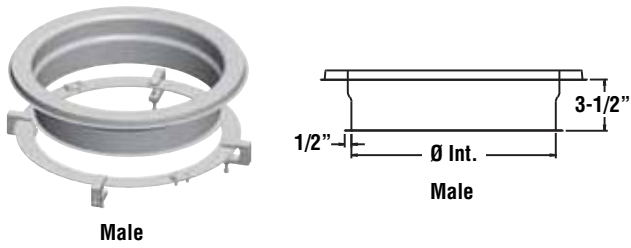
Used as a non-welded attachment for appliances having an un-flanged outlet.
 Locking band included.
 Outer band with insulation included.
 Flow resistance: $K = 0.4 (\text{eff. length [ft]} / \text{Ø [in.]})$
 $K = 0.25 (\text{eff. length [ft]} / \text{Ø [in.]})$
 For engine or turbine exhaust
 Materials available: 304, 316, Galvalume

Figure 25 - DIS/DAS Single Wall Adaptor

Ø (in.)	ØA (in.)	Product Code - Male		Product Code - Female	
		DIS	DAS	DIS	DAS
5	10	DIS5FA	DAS5FA	DIS5FFA	DAS5FFA
6	11	DIS6FA	DAS6FA	DIS6FFA	DAS6FFA
8	13-1/2	DIS8FA	DAS8FA	DIS8FFA	DAS8FFA
10	16	DIS10FA	DAS10FA	DIS10FFA	DAS10FFA
12	19	DIS12FA	DAS12FA	DIS12FFA	DAS12FFA
14	21	DIS14FA	DAS14FA	DIS14FFA	DAS14FFA
16	23	DIS16FA	DAS16FA	DIS16FFA	DAS16FFA
18	25	DIS18FA	DAS18FA	DIS18FFA	DAS18FFA
20	27-1/2	DIS20FA	DAS20FA	DIS20FFA	DAS20FFA
22	29-1/2	DIS22FA	DAS22FA	DIS22FFA	DAS22FFA
24	32	DIS24FA	DAS24FA	DIS24FFA	DAS24FFA
26	34-1/2	DIS26FA	DAS26FA	DIS26FFA	DAS26FFA
28	36-1/2	DIS28FA	DAS28FA	DIS28FFA	DAS28FFA
30	38-1/2	DIS30FA	DAS30FA	DIS30FFA	DAS30FFA
32	42	DIS32FA	DAS32FA	DIS32FFA	DAS32FFA
34	44	DIS34FA	DAS34FA	DIS34FFA	DAS34FFA
36	46	DIS36FA	DAS36FA	DIS36FFA	DAS36FFA

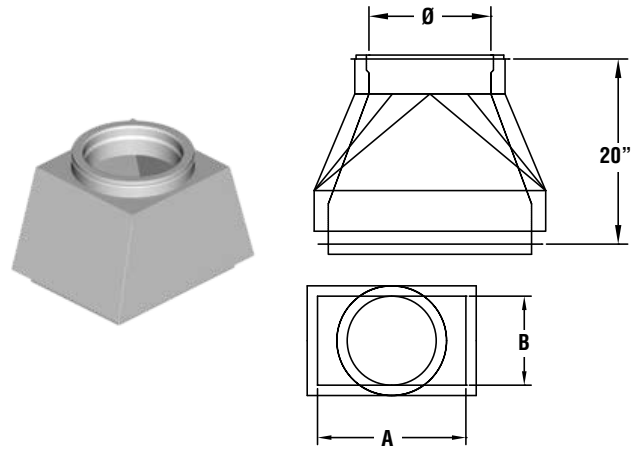
Used for connecting a 125- or 150-lb. ANSI flange.
 Flange thickness = 1/4"
 Bolt hole pattern, bolt hole center pattern and quantity per 125-lb. ANSI.
 Locking band included.
 Outer band with insulation included.
 Flow resistance: $K = 0.4 (\text{eff. length [ft]} / \text{Ø [in.]})$
 $K = 0.25 (\text{eff. length [ft]} / \text{Ø [in.]})$
 For engine or turbine exhaust
 Materials available: 304, 316, Galvalume

Figure 26 - DIS/DAS ANSI Flange Adaptor



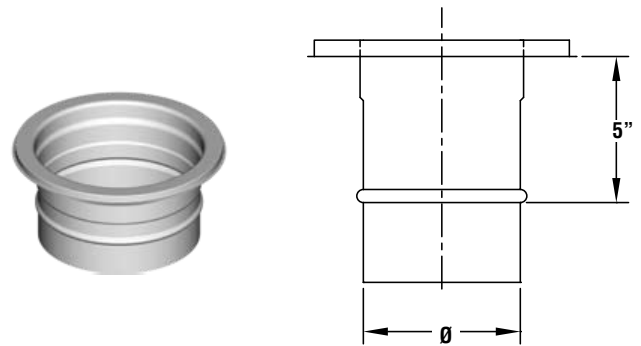
Ø (in.)	Product Code - Male DIS & DAS	Product Code - Female DIS & DAS
5 to 36	DISØFHA	DISØFFHA
Used on standard appliances such as kitchen hood exhausts. Flanged at the end. Locking band included. Outer band with insulation included. Flow resistance: $K = 0.4$ (eff. length [ft] / Ø [in]) Materials available: 304, 316, Galvalume		

Figure 27 - DIS/DAS Flanged Hood Adaptor



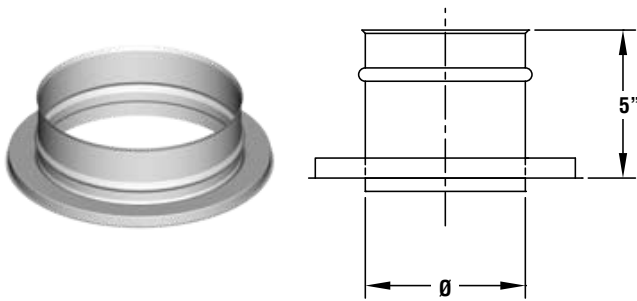
Ø (in.)	A	B	Product Code	
			DIS	DAS
5 to 36	Customizable	Customizable	DISØSTR(AB)	DASØSTR(AB)
Locking band included. Not listed. Made to order. Materials available: 304, 316, Galvalume				

Figure 28 - DIS/DAS Square to Round Adaptor



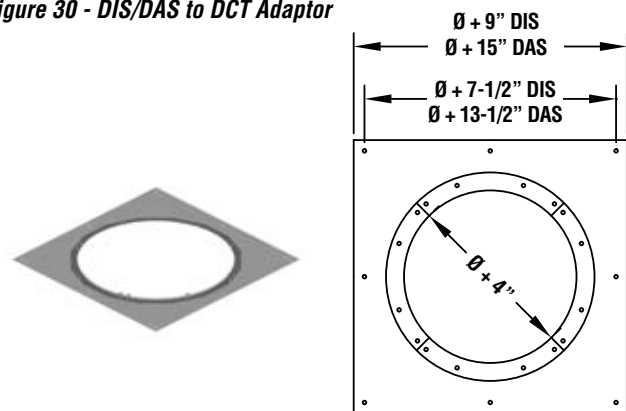
Ø (in.)	Product Code DIS & DAS
5 to 36	DISØRCTMB
Used to connect DCT model chimney liner to DIS or DAS. Locking band included. Flow resistance: $K = 0.4$ (eff. length [ft] / Ø [in]) $K = 0.25$ (eff. length [ft] / Ø [in]) For engine or turbine exhaust Materials available: 316	

Figure 29 - DCT to DIS/DAS Adaptor

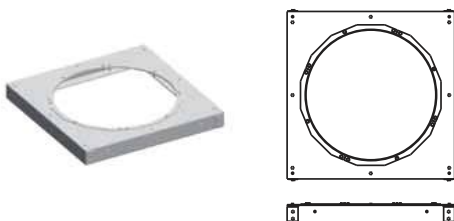


Ø (in.)	Product Code DCT
5 to 36	DCTØRCTFB
Used to connect DIS/DAS model chimney to a DCT chimney liner. Locking band included. Flow resistance: $K = 0.4$ (eff. length [ft] / Ø [in]) $K = 0.25$ (eff. length [ft] / Ø [in]) For engine or turbine exhaust Materials available: 316	

Figure 30 - DIS/DAS to DCT Adaptor

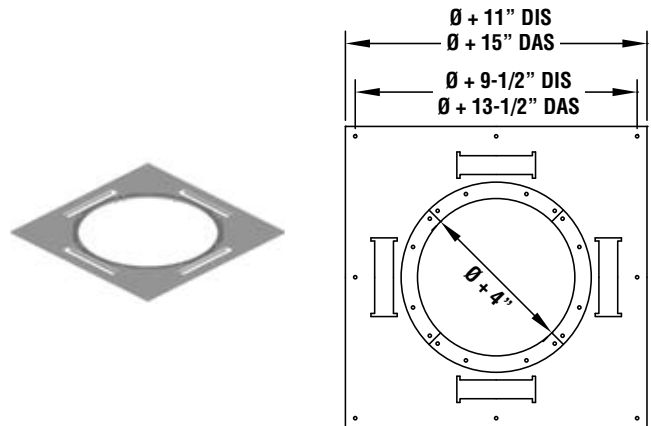


Ø (in.)	Product Code - Anchor Plate	
	DIS	DAS
5 to 36	DISØAPF	DASØAPF
Used for supporting the stack in vertical or horizontal runs and to provide a fixed point for thermal expansion consideration. Maintains a minimum of 1" clearance to the opening on DIS installations and 4" clearance to the opening on DAS. All hardware included except connection to structure. Materials available: galvanized Must not be in contact with combustible materials.		



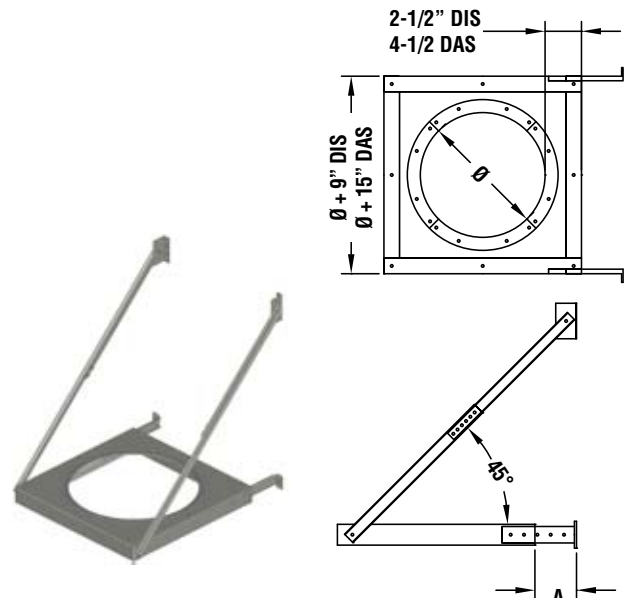
Ø (in.)	Product Code - Anchor Plate, Heavy Duty	
	DIS	DAS
5 to 36	DISØAPHDF	DASØAPHDF
Heavy-duty steel "C" channel base - 2-1/2" x 1-1/2"		

Figure 31 - DIS/DAS Anchor Plates



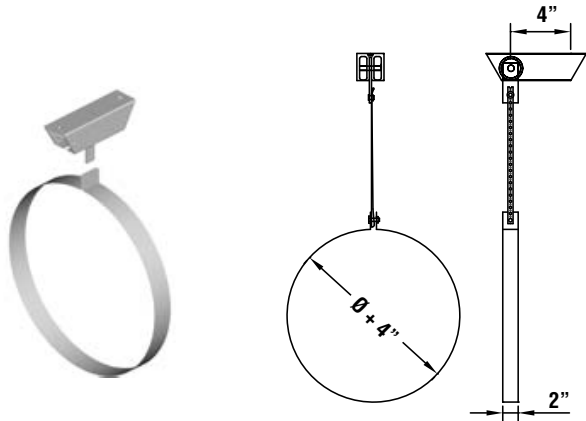
Ø (in.)	Product Code	
	DIS	DAS
5 to 36	DISØAPVF	DASØAPVF
Used for supporting the stack in vertical runs in contact with combustible materials and to provide a fixed point for thermal expansion consideration. Maintains a minimum of 2" clearance to the opening on DIS and 4" on DAS. All hardware included except connection to structure. Materials available: galvanized		

Figure 32 - DIS/DAS Anchor Plate Ventilated



Ø (in.)	A (in.)	Product Code	
		DIS	DAS
5 to 36	0 to 5	DISØWSF	DASØWSF
Used for supporting the stack in vertical runs in contact with combustible materials and to provide a fixed point for thermal expansion consideration. Maintains a minimum of 2-1/2" clearance to the wall on DIS and 4-1/2" on DAS and up to 7-1/2" on DIS and 9-1/2" on DAS when wall brace is extended. All hardware included except connection at wall. Materials available: galvanized			

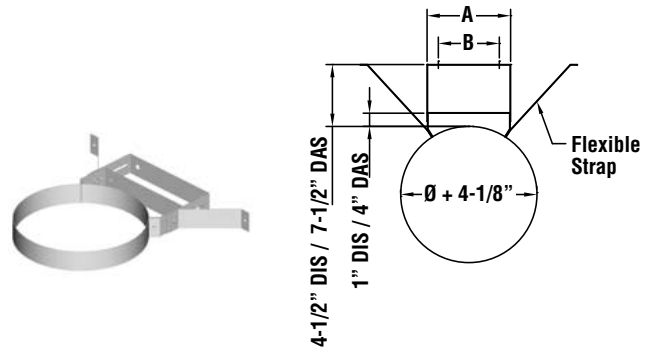
Figure 33 - DIS/DAS Wall Support



Ø (in.)	Product Code (DIS & DAS)
5 to 36	DISØSBE

Used for supporting and guiding the stack in horizontal runs. Allows 4" of travel for thermal expansion. Rail, trolley and band included. Flexible support strap (not included) is used to join the band and the trolley—see instruction manual for required specifications. All hardware included except connection to structure. Materials available: Galvalume

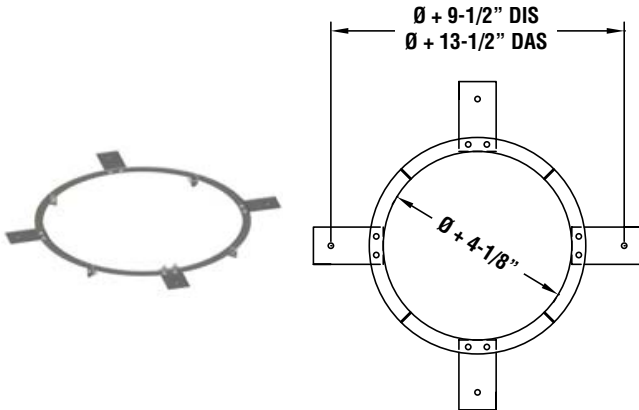
Figure 34 - DIS/DAS Suspension Band



Ø (in.)	A (in.)	B (in.)	Product Code	
			DIS	DAS
5	7-7/8	6-1/8	DIS5WGE	DAS5WGE
6	8-9/16	6-13/16	DIS6WGE	DAS6WGE
8	10	8-1/4	DIS8WGE	DAS8WGE
10	11-13/32	9-21/32	DIS10WGE	DAS10WGE
12	12-13/16	11-1/16	DIS12WGE	DAS12WGE
14	14-7/32	12-15/32	DIS14WGE	DAS14WGE
16	15-21/32	13-29/32	DIS16WGE	DAS16WGE
18	17-1/16	15-5/16	DIS18WGE	DAS18WGE
20	18-15/32	16-23/32	DIS20WGE	DAS20WGE
22	19-7/8	18-1/8	DIS22WGE	DAS22WGE
24	21-5/16	19-9/16	DIS24WGE	DAS24WGE
26	22-23/32	20-31/32	DIS26WGE	DAS26WGE
28	24-1/8	22-3/8	DIS28WGE	DAS28WGE
30	25-17/32	23-25/32	DIS30WGE	DAS30WGE
32	26-31/32	25-7/32	DIS32WGE	DAS32WGE
34	28-3/8	26-5/8	DIS34WGE	DAS34WGE
36	29-25/32	28-1/32	DIS36WGE	DAS36WGE

Used for guiding vertical installation attached to the wall. Maintains a minimum of 1" clearance to the wall on DIS and 4" for DAS. Extension for additional clearance of 3-1/2" is included. All hardware included except connection to structure. Flexible strap (not included) can be used to add rigidity when using extension—see instruction manual for required specifications. Materials available: Galvalume

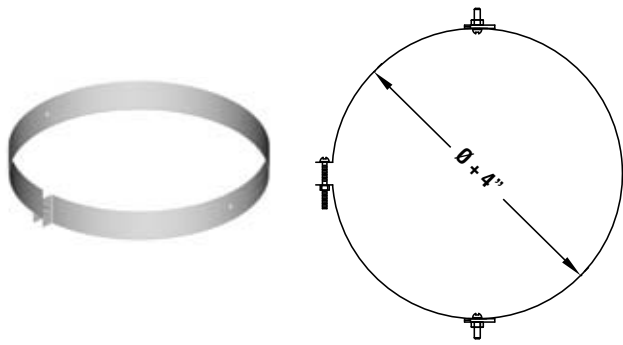
Figure 36 - DIS/DAS Wall Guide



Ø (in.)	Product Code	
	DIS	DAS
5 to 36	DISØFGF	DASØFGF

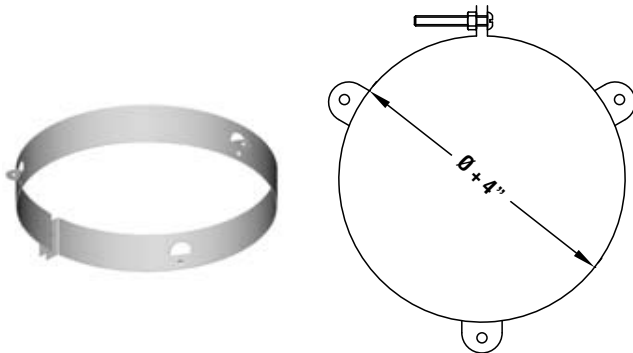
Used for guiding in vertical installation when passing through a floor or roof. Maintains a minimum of 2" clearance to the opening on DIS installations and 4" clearance to the opening on DAS. All hardware included except connection to structure. Materials available: galvanized

Figure 35 - DIS/DAS Floor Guide



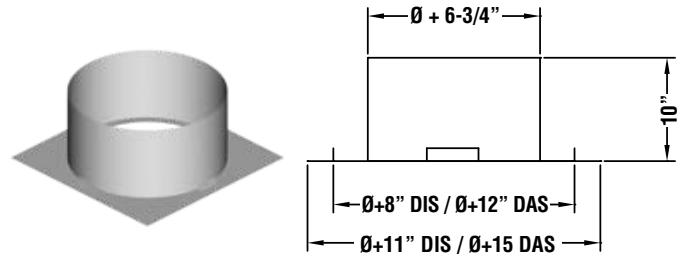
\varnothing (in.)	Product Code (DIS & DAS)
5 to 36	DISØRBE
Used for bracing in vertical installation above the roof. All hardware included except brace and connection to roof. Brace not included—see instruction manual for required specifications. Materials available: Galvalume	

Figure 37 - DIS/DAS Roof Brace



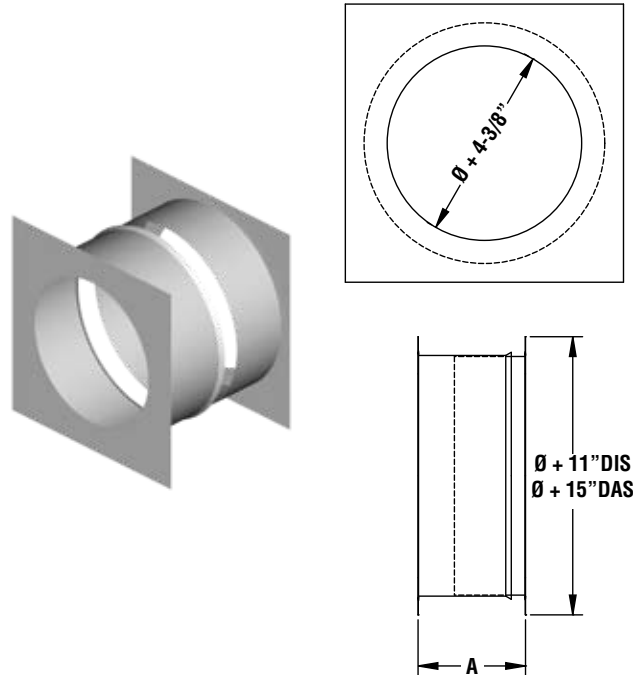
\varnothing (in.)	Product Code (DIS & DAS)
5 to 36	DISØGW
Used for guiding in vertical installation above the roof. All hardware included except wire, tensioner and connection to roof. See instruction manual for required specifications. Materials available: Galvalume	

Figure 38 - DIS/DAS Guy Wire Band



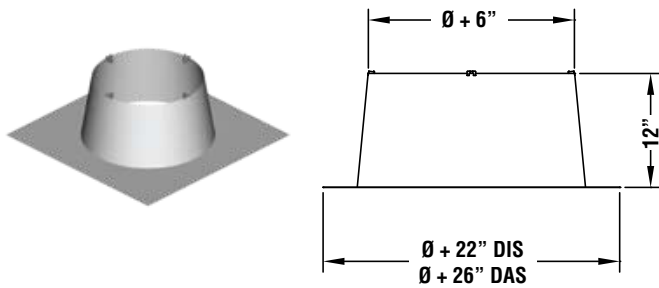
\varnothing (in.)	Product Code	
	DIS	DAS
5 to 36	DISØFSE	DASØFSE
Used where chimney passes through a combustible roof or structure. Maintains a minimum of 2" clearance to the opening on DIS installations and 4" clearance to the opening on DAS. Materials available: Galvalume		

Figure 39 - DIS/DAS Roof/Floor Penetration Shield



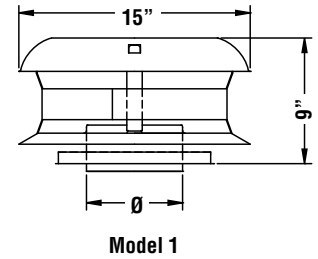
\varnothing (in.)	Product Code	
	DIS	DAS
5 to 36	DISØFSWE	DASØFSWE
Used where chimney passes through a combustible wall. Maintains a minimum of 2" clearance to the opening on DIS installations and 4" clearance to the opening on DAS. Not listed for diameter larger than 10". Materials available: Galvalume		

Figure 40 - DIS/DAS Wall Thimble

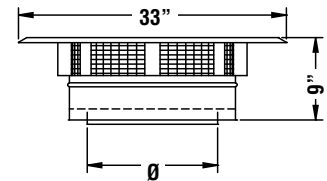


\varnothing (in.)	Product Code	
	DIS \varnothing F	DAS \varnothing F
5 to 36		
Used in conjunction with storm collar for weatherization at the roof. Storm collar included. Materials available: Galvalume, 304		

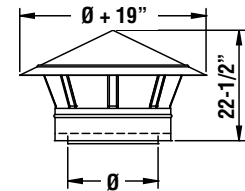
Figure 41 - DIS/DAS Flashing



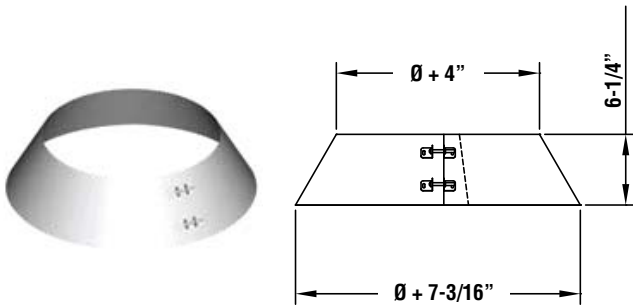
Model 1



Model 2

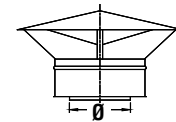


Model 3



\varnothing (in.)	Product Code
	DIS & DAS
5 to 36	DIS \varnothing SC
Used above the flashing for complete weatherization above the roof. To be sealed with outer joint sealant S-375 (not included). Materials available: Galvalume, 304	

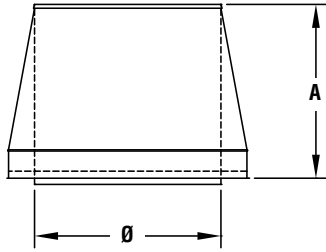
Figure 42 - DIS/DAS Storm Collar



Model 4

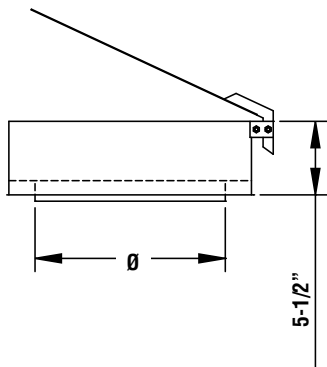
\varnothing (in.)	Model	Product Code
5 to 18	4	DIS \varnothing CRCC
5 to 10	1	DIS \varnothing RCC
12 to 18	2	DIS \varnothing RCC
20 to 36	3	DIS \varnothing RCC
Used to provide the greatest degree of rain protection. Model 2 is available with a bird screen, code DIS \varnothing RBCB. Materials available: 304		

Figure 43 - DIS/DAS Rain Cap



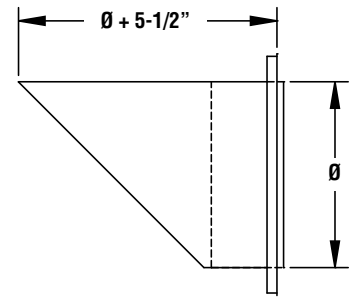
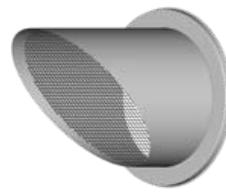
Ø (in.)	A (in.)	Product Code DIS & DAS
5 to 36	10 to 27	DISØFC
Used to provide the greatest draft. Requires a drain at bottom of stack. Materials available: 304, 316, Galvalume		

Figure 44 - DIS/DAS Finishing Cone



Ø (in.)	Product Code DIS & DAS
5 to 24	DISØFTC
For engine exhaust application. Used to prevent moisture and debris from entering system. Flip top opens with internal pressure and closes when no pressure is present. Materials available: 304	

Figure 45 - DIS/DAS Flip Top



Ø (in.)	Product Code DIS & DAS
5 to 36	DISØMCC
Used for horizontal engine exhaust application. Materials available: 304	

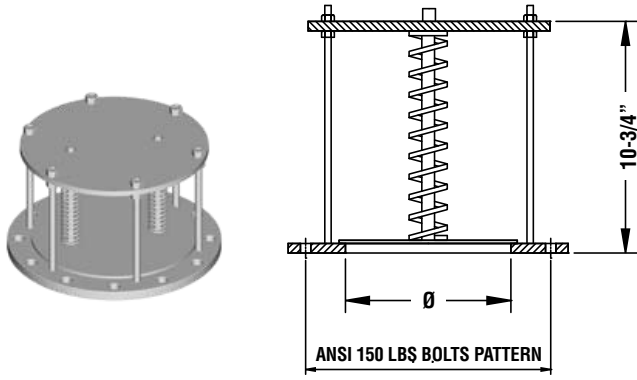
Figure 46 - DIS/DAS Miter Cut



Location	Max. Temp. °F	Color	Product Code
Inner Joint	650	Red	S-650
Outer Joint	375	Gray	S-375
Red sealant is used in combination with the locking band. Gray sealant is used to protect from rain entering the system when chimney runs outside of the building and is subject to rain.			

Sealant Coverage	
Ø	Number of Joints
5	13
6	11
8	9
10	8
12	7
14	6
16-18	5
20-26	4
28-36	3

Figure 47 - DIS/DAS Sealant



Ø (in.)	Product Code
5 to 24	DISØRVC
<p>Used on engine exhaust. Helps control the venting pressure should a backfire occur. Must be used in conjunction with ANSI flanged adaptor and 45-degree tee relief valve.</p>	

Figure 48 - DIS/DAS Relief Valve

**DURAVENT
DURA STACK™ – DIS
INDUSTRIAL AND COMMERCIAL CHIMNEY AND VENTING PRODUCTS
1-YEAR STANDARD & 15-YEAR LIMITED WARRANTY**

THE WARRANTY

This Duravent 1-Year Standard and 15-year Limited Warranty warrants your Dura Stack™ – DIS stainless steel multi-fuel double-wall chimney system (Product) to be free from defects in material and workmanship at the time of manufacture. This 1-Year Standard and 15-year Limited Warranty includes all components and fittings. After installation, if covered components manufactured by Duravent are found to be defective in materials or workmanship during the 1-Year Standard and 15-year Warranty period and while the Product remains at the site of the original installation, Duravent will, replace the covered components. Duravent reserves the right to replace covered components with an equivalent product and the replacement must be carried out in accordance with Duravent recommendations. If replacement is not commercially practical, Duravent will, at its option, refund the purchase price or wholesale price of the Duravent Product, whichever is applicable. Labor or freight costs to remove or replace Duravent components is not included. THERE ARE EXCLUSIONS AND LIMITATIONS to the 1-Year Standard and 15-year Limited Warranty as described herein. Duravent Grease Duct applications are covered separately (see Dura Stack – DIS Grease Duct Applications Warranty) and are not included under this warranty.

COVERAGE COMMENCEMENT DATE

Warranty coverage begins on the date of shipment from Duravent.

EXCLUSIONS AND LIMITATIONS

This 1-Year Standard and 15-year Limited Warranty applies only if the Product is installed in the United States or Canada and only if used for the application for which it was designed and intended. The Product must be installed and maintained in accordance with the system design, installation and maintenance instructions for the Product and in compliance with all applicable installation and building codes and high quality, industry accepted trade practices. Any repaired or replaced product shall be warranted for the duration of time no longer than the remaining or unexpired term of the original warranty.

The 1-Year Standard Warranty is extended to the purchaser subject to the following conditions:

- Generally accepted engineering practices have been followed to determine that sizing and material specifications are suitable for the application and environment involved;
- The components have been correctly installed in accordance with the system design and installation instructions for the Product as provided by Duravent;
- Damage is not a result of burning garbage, waste oil, #6 oil or any other inappropriate or prohibited material in the appliance served by the venting system.

The Extended 15-Year Limited Warranty is extended to the purchaser subject to the following additional conditions:

- The design parameters provided to Duravent by the responsible engineer at the time of design were and are accurately representative of the operating conditions;
- The system sizing and design was performed or approved by Duravent;
- The boiler or engine exhaust is and has operated free of solvent or refrigerant vapors or any halogenated compound which may cause acid condensates to form within the chimney system;
- The entire chimney or exhaust system was supplied by Duravent;
- Exposed galvalume and galvanized surfaces are protected with a minimum of one base coat of primer and one finish coat of heat resistant and corrosive resistant paint at all times. Stainless steel surfaces do not require painting.

This warranty is non-transferable and extends to the original owner only. The Product must be purchased through an Duravent Agent/Representative and proof of purchase must be provided.

Duravent will not be responsible for: (a) damages caused by normal wear and tear, corrosion from salt air, accident, riot, fire, flood or acts of God; (b) damages caused by abuse, negligence, misuse, or unauthorized alteration or repair of the Product affecting its stability or performance. (c) damages caused by failing to provide proper maintenance and service in accordance with the design, installation and maintenance instructions for the Product; (d) damages, repairs or inefficiency resulting from faulty installation or application of the Product.

This 1-Year Standard and 15-year Limited Warranty covers only parts as provided herein. Duravent's entire liability is limited to the purchase price of this Product. In no case shall Duravent be responsible for materials, components or construction which are not manufactured or supplied by Duravent or for the labor necessary to install, repair or remove such materials, components or construction. All replacement or repair components will be shipped F.O.B. from the Duravent manufacturing facility.

LIMITATION ON LIABILITY

It is expressly agreed and understood that the sole obligation of Duravent and the purchaser's exclusive remedy under this warranty, under any other warranty, expressed or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified herein.

In no event shall Duravent be liable for any incidental or consequential damages caused by defects in the Product, whether such damage occurs or is discovered before or after replacement or repair, and whether such damage is caused by Duravent negligence.

Duravent makes no expressed warranties except as stated in this 1-Year Standard and 15-year Limited Warranty. The duration of any implied warranty is limited to the duration of this expressed warranty.

No one is authorized to change this 1-Year Standard and 15-year Limited Warranty or to create for Duravent any other obligation or liability in connection with the Product. Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you. The provisions of this 1-Year Standard and 15-year Limited Warranty are in addition to and not a modification of or subtraction from any statutory warranties and other rights and remedies provided by law.

INVESTIGATION OF CLAIMS AGAINST WARRANTY

Duravent reserves the right to investigate any and all claims against this 1-Year Standard and 15-year Limited Warranty and to decide, in its sole discretion, upon the method of settlement.

Duravent shall in no event be responsible for any warranty work done by a contractor that is not approved without first obtaining Duravent's prior written consent.

HOW TO REGISTER A CLAIM AGAINST WARRANTY

In order for any claim under this warranty to be valid, you must contact the Duravent Agent/Representative from which you purchased the Product. If you cannot contact the Agent/Representative, then you must notify Duravent in writing. Duravent must be notified of the claimed defect in writing within 90 days of the date of failure. Notices should be directed to the Duravent Warranty Department.

WARRANTY

These products have a limited warranty. Please read the warranty to be familiar with its coverage.

Retain this document. File it with your other documents for future reference.

PRODUCT REFERENCE INFORMATION

Please contact Duravent for the phone number of your nearest Duravent dealer who will answer your questions or address your concerns.

Normally, all parts should be ordered through your Duravent distributor or dealer. Parts will be shipped at prevailing prices at time of order.

When ordering repair parts, always give the following information:

1. The model number of the chimney system.
2. The part number.
3. The description of the part.
4. The quantity required.
5. The installation date of the chimney system.

If you encounter any problems or have any questions concerning the installation or application of this system, please contact your dealer.

Duravent reserves the right to make changes at any time, without notice, in design, materials, specifications, prices. Consult your local distributor for chimney system code information.



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