

## Submittal #235100-001.0 - Boiler exhaust RFS 235100 - Breechings, Chimneys, and Stacks

### Distribution Summary

*Distributed by Camilo Belalcazar (Cannon Design) on May 27, 2021*

**To** Jenn Campbell (DCAMM), David Blouin (Cannon Design), Michael Kinney (DCAMM), Kevin Volpicella (Whiting-Turner Contracting Company-Connecticut), Benjamin Thornton (Whiting-Turner Contracting Company-Connecticut), Brian O'Maley (SMRT Architects and Engineers), Benson Hager (Cannon Design), Anthony Grzegowski (Whiting-Turner Contracting Company-Connecticut), James Glover (Cannon Design), Jonathan Roeth (Whiting-Turner Contracting Company-Connecticut), Dennis Regan (Whiting-Turner Contracting Company-Connecticut), Christopher Williams (DCAMM), Alan Roberts (Western MA Hospital), Mark Thomsen (Cannon Design)

**Message** None

### Attachments

Name	Response	Attachments	Comments
Benson Hager (Cannon Design)	Approved as Noted	<a href="#">235100-001.0 - Boiler exhaust RFS - MCN.pdf</a>	

<b>Revision</b>	0	<b>Submittal Manager</b>	Camilo Belalcazar (Cannon Design)
<b>Status</b>	Closed	<b>Date Created</b>	May 8, 2021
<b>Issue Date</b>	May 8, 2021	<b>Spec Section</b>	235100 - Breechings, Chimneys, and Stacks
<b>Responsible Contractor</b>		<b>Received From</b>	
<b>Received Date</b>	May 7, 2021	<b>Submit By</b>	May 21, 2021
<b>Final Due Date</b>	May 21, 2021	<b>Lead Time</b>	
		<b>Cost Code</b>	
<b>Location</b>		<b>Type</b>	
<b>High Priority? (Y or N)</b>			
<b>Forwarded Date</b>			
<b>Approvers</b>	Benson Hager (Cannon Design)		
<b>Ball in Court</b>			
<b>Distribution</b>	Jay Toutant (Cannon Design), David Blouin (Cannon Design)		
<b>Description</b>			

### ADDITIONAL FIELDS

**Forwarded Date**

**Submittal Workflow**

Name	Sent Date	Due Date	Returned Date	Response	Attachments
General Information Attachments					<a href="#">235100-001.0 - Boiler exhaust RFS.pdf</a>
Benson Hager	May 8, 2021	May 21, 2021	May 27, 2021	Approved as Noted	<a href="#">235100-001.0 - Boiler exhaust RFS - MCN.pdf (Current)</a>

## SUBMITTAL IDENTIFICATION SHEET

### To be completed by Contractor/CM

PROJECT NAME

ADDRESS

NUMBER

OWNER

ARCHITECT / ENGINEER

SUBMITTED BY

CONTRACTOR / CM SUBMITTAL NO.      CANNONDESIGN SUBMITTAL NO.

DRAWING / DETAIL REFERENCE      SPECIFICATION SECTION / PARAGRAPH

MANUFACTURER / SUPPLIER      ITEM / PRODUCT ID

REQUIRED DATE      PRIORITY       CRITICAL

ITEM BEING SUBMITTED (check only one)

Shop Drawings       Certification / Qualifications       Coordination Drawing  
 Samples ( \_\_\_\_ copies)       Record Documents       Calculations  
 LEED Submittal       Product Data       O&M Manuals  
 Other \_\_\_\_\_

ITEM BEING SUBMITTED FOR (check only one)

Action       Information Only       Record

REMARKS OR DEVIATIONS

CONTRACTOR / CM CERTIFICATION  
(SUBMITTALS NOT CERTIFIED WILL BE RETURNED WITHOUT REVIEW)

REVIEWED BY      DATE

### To be completed by Reviewer

CANNONDESIGN SUBMITTAL NUMBER

RECEIVED DATE

A. No Exceptions Taken. No further review of submittal is required.

B. Make Corrections Noted. Incorporate corrections in work; resubmission is not required.

C. Revise and Resubmit Revise as noted, and resubmit for review.

D. Rejected Submittal is not in compliance with Contract Documents; provide new submittal.

E. For Record / Information Only. Submittal was reviewed for Record / Information purposes only.

F. Not Required for Review. Submittal is not required by Contract Documents and has not been reviewed.

Review is for conformance with the design concept of this project and for general compliance with contract documents. Contractor is responsible for quantities, dimensions and compliance with contract documents and for information that pertains to fabrication processes, construction techniques and coordination of this work with all trades which will be affected thereby. This review is null and void if submittal deviates from contract documents and does not indicate or note deviations.

A/E COMMENTS       See attached sheet(s) for additional comments

REVIEWED BY      DATE

**The Whiting-Turner Contracting Company**  
**One Monarch Place, Suite 1130, Springfield, Massachusetts 01144**  
**Western MA Hospital Mechanical Upgrades / Mass State Project # DPH1605 DC1**

**Submittal Transmittal Form**  
 (Subcontractor to use a Separate Form for Each Submittal Item)

Submittal # 235100-001-00  
 (To Be Completed by WT)

<b>TRANSMITTAL SECTION A (To be completely filled out by Subcontractor when transmitting to Whiting-Turner)</b>				
Subcontractor Name: <u>Adams Plumbing &amp; Heating, Inc.</u>		Resubmission: Circle YES or <b>NO</b>		
Date Transmitted to Whiting-Turner: <u>05 / 3 /2021</u> (insert date)				
Subcontractor's Authorized Signature: <u>Mike Meczywor</u>				
<b>SUBMITTAL INFORMATION-Use a separate transmittal for each item submitted</b>				
Quantity Submitted	Spec. Section	Drawing Reference	Submittal Description	Manufacturer / Supplier
1	235100		Breechings, Chimneys and Stacks	Tunstall Corporation
<b>FOR SPECIFIED ITEMS CHECK APPLICABLE BOXES BELOW</b>			<b>FOR SUBSTITUTIONS, CHECK APPLICABLE BOXES BELOW</b>	
<input checked="" type="checkbox"/> Submitted for Review and Approval <input type="checkbox"/> Resubmitted for Review and Approval <input checked="" type="checkbox"/> Complies with Contract Requirements			<input type="checkbox"/> Substitution Involved, Submission includes full point by point comparative data.	
<b>Other remarks on above submission:</b>				

<b>TRANSMITTAL SECTION B (To be filled out by Whiting-Turner when transmitting to Architect/Engineer Team)</b>			
Date Received By Whiting-Turner: <u>5/3/2021</u>		Date Transmitted to Design Team: <u>5/7/2021</u>	
Whiting-Turner Authorized Signature: <u><i>J. Smith</i></u>			
<b>Whiting-Turner remarks on above submission</b>			
<input checked="" type="checkbox"/> Reviewed <input checked="" type="checkbox"/> One copy retained by Whiting-Turner		<input type="checkbox"/> Substitution Involved, Submission includes full point by point comparative data. <input checked="" type="checkbox"/> Complies with Contract Requirements <input checked="" type="checkbox"/> Whiting-Turner Additional Remarks: <b>See sub. stamp page.</b>	
Copies: DCAMM <u>Via email</u> , Other _____			

<b>TRANSMITTAL SECTION C (To be filled out Architect/Engineer when returning to Whiting-Turner)</b>			
Date Received By Architect/Engineer: <u>    /    /    </u>		Date Transmitted to Whiting-Turner: <u>    /    /    </u>	
Architect's Authorized Signature: _____			
<b>Architects Action on above submission:</b>			
<input type="checkbox"/> Approved	<input type="checkbox"/> Revise & resubmit CANNOT fabricate	<input type="checkbox"/> Additional Remarks:	
<input type="checkbox"/> Approved as Noted	<input type="checkbox"/> Rejected		
<input type="checkbox"/> Revise & Resubmit MAY fabricate	<input type="checkbox"/>		

<b>TRANSMITTAL SECTION D (To be filled out by Whiting-Turner and transmitted back to Subcontractor)</b>			
Date Received By Whiting-Turner: <u>5/27/2021</u>		Date Transmitted to Subcontractor: <u>5/27/2021</u>	
		Transmitted to (name) <b>Unit 23A - Adams Plumbing &amp; Heating</b> <b>Mike Meczywor</b>	
Number of Copies <b>1 via email</b>			
Whiting-Turner Authorized Signature: <u><i>J. Smith</i></u>			
Copies:	WT Field <b>X</b>	WT File <b>X</b>	Other Copies <b>X</b>
CC to other trade contractors for coordination:			

**Unit 05A - J. Smith, Unit 07A - A. Kielb, Unit 22A - M. Ressler, Unit 26A - B. O'Conner**

# The Whiting-Turner Contracting Company

## Submittal Stamp Form

(Trade Contractor to use a Separate Form For Each Submittal Item)

Submittal # 235100-001-00

DCAMM PROJECT # DPH 1605 / WT JOB # 018285.003

CONFORMANCE WITH THE DESIGN CONCEPT AND GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS. THIS REVIEW IN NO WAY RELEASES THE SUBCONTRACTOR/SUPPLIER FROM THEIR RESPONSIBILITY TO ADHERE TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS, INCLUDING ALL DIMENSIONS & QUANTITIES.

- REVIEWED  
 REVIEWED AS NOTED  
 NOT APPROVED  
 CORRECT & RESUBMIT



W-T SUBMITTAL NO. 235100-001-00 Boiler exhaust  
THE WHITING-TURNER CONTRACTING COMPANY

BY JRoeth DATE 05/06/2021

### WT Comments:

- Unit 23A to coordinate roof opening locations for temp. stack. Coordinate flashing of roof curbs and stack penetrations with roofing contractor. Seal all penetrations as required.
- Unit 23A to VIF all dimensions prior to fabrication of system.
- Unit 23A to coordinate location of tie downs. Notify WT in writing if existing roof must be reinforced with steel to install anchor points. Anchor points located by Unit 23A.
- Unit 23A to support/hang all stack members from building structure.
- Unit 23A to coordinate all section lengths for boiler dimensions.
- Unit 23A to seal all joints per manf. requirements.
- Unit 23A to provide crane/lift plan to WT for review.
- Unit 23A to install systems to meet manf. requirements for proper operation.
- Unit 23A to provide and coordinate flexible pipe connections as required and consider requirements for thermal expansion at penetration in roof and tie down points.
- Unit 23A to pipe all stack drains to nearest floor drain. Install ball valve on drain w/ male hose connection end.
- **Unit 23A to provide submittal for all sealants**
- **Unit 23A to provide submittal for all specialty anchors & supports for review.**
- **Unit 23A to provide submittal for guying and bracing materials for review.**
- See spec. section 235100 detail 5/M0703 for additional requirements.
- Provide 15 year special warranty.

Comments by: JR

### WT Comments to designers:

Comments by: JR



**Adams Plumbing & Heating, Inc.**

43 Printworks Drive, P.O. Box 126

Adams, MA 01220

Lic. #9052

**Submittal Transmittal**

**Western Mass Hospital Mechanical Upgrades**

**Project # 2021-04**

**Date: 5/3/2021** **Reference Number: 0047**

<b>Transmitted To:</b>	Jonathan Roeth The Whiting-Turner Contracting Co. 2 Enterprise Drive Suite 504 Shelton, CT 06484 Tel: 203-789-8700	<b>Transmitted By:</b>	Mike Meczywor Adams Plumbing & Heating, Inc. PO Box 126 Adams, MA 01220 Tel: 413-743-2308 Fax: 413-743-7350
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Qty	Submittal Package No	Description	Due Date	Package Action
1	0035 - - 0	Breechings, Chimneys and Stacks		

Transmitted For	Delivered Via	Tracking Number

Items	Qty	Description	Spec Section	Spec Sub Section	Item Action
1		Breechings, Chimneys and Stacks	235100		

Cc:	Company Name	Contact Name	Copies	Notes

**Approvals**

Architect / Engineer Approval

Contractor Approval

# JENSEN MECHANICAL EQUIPMENT, INC.

MANUFACTURER'S REPRESENTATIVE

P.O. Box 346, New Hartford, CT 06057  
Phone: (860) 738-2800 / Fax (860) 738-3314  
Email: Sales@JensenEquipment.net

## SUBMITTAL COVER SHEET

**DATE:** 4/30/2021

**TO:** Adams Plumbing & Heating  
43 Printworks Drive  
Adams, MA 01220

**ATTN:** Mike Meczywor

**PROJECT:** Western Mass Hospital  
91 East Mountain Rd.  
Westfield, MA 01085

**ENGINEER:** Cannon Design  
99 Summer St  
Boston, MA 02110

**SPEC SECTION:** 235100  
Breechings, Chimneys and Stacks

NOTES / REMARKS

**WE ARE SENDING YOU:**

**COPIES DESCRIPTION**

- 1 Metal-Fab Product Information
- 1 Submittal Drawings

**THESE ARE TRANSMITTED AS:**

**For Approval**

**Signed By:**

*Tom Sparks*

APPROVALS:

IF ENCLOSURES ARE NOT LISTED AS NOTED, PLEASE NOTIFY US AT ONCE

# JENSEN MECHANICAL EQUIPMENT, INC.

MANUFACTURER'S REPRESENTATIVE

P.O. Box 346, New Hartford, CT 06057  
Phone: (860) 738-2800 / Fax (860) 738-3314  
Email: Sales@JensenEquipment.net

## Submittal 4/30/2021

Contractor: Adams Plumbing & Heating  
43 Printworks Drive  
Adams, MA 01220

Engineer: Cannon Design  
99 Summer St  
Boston, MA 02110

Submitted By: Jensen Mechanical Equipment, Inc.  
P.O. Box 346  
280 Main Street  
New Hartford, CT 06057

Project: **Western Mass Hospital**  
91 East Mountain Rd.  
Westfield, MA 01085

Spec Section: **235100**  
**Breechings, Chimneys and Stacks**

Items:

**Temporary Flue - (1) 10"Ø by 24"Ø METAL-FAB Model "FCS" Corr-Guard Condensing Boiler Exhaust Flue System.**

**Permanent Flue - (1) 10"Ø by 18"Ø METAL-FAB Model "FCS" Corr-Guard Condensing Boiler Exhaust Flue System.**



# JENSEN MECHANICAL EQUIPMENT, INC.

MANUFACTURER'S REPRESENTATIVE

P.O. Box 346, New Hartford, CT 06057  
Phone: (860) 738-2800 / Fax (860) 738-3314  
Email: Sales@JensenEquipment.net

**Submittal**  
**4/30/2021**

PROJECT: **Western Mass Hospital**  
91 East Mountain Rd.  
Westfield, MA 01085

SPECIFICATION SECTION: **235100**  
**Breechings, Chimneys and Stacks**

MANUFACTURER: **METAL-FAB INC.**  
**P.O. Box 1138**  
**Wichita, KS 67201**

## TERMPORARY FLUE MATERIAL

PRODUCT TYPE: **METAL-FAB Model "FCS" Corr-Guard Condensing Boiler Exhaust Flue**

INNER CONSTRUCTION: 10"Ø ID - .015" Thick AL29-4C Superferritic Stainless Steel Inner Flue  
24"Ø ID - .024" Thick AL29-4C Superferritic Stainless Steel Inner Flue

OUTER JACKET CONSTRUCTION: 12"Ø OD - .024" Thick 430 Stainless Steel Outer Jacket  
26"Ø OD - .024" Thick 430 Stainless Steel Outer Jacket

INSULATION: 1" of air space between the Inner Flue and Outer Jacket

LISTINGS: **NFPA-54**  
UL-1738

Specification section 235100.2.1.B calls for flue pressure complying with NFPA-211

NOTES: Chimneys to be installed in accordance with manufacturer's recommendations, contract drawings and specifications. Field verified drawings detailing part numbers, support locations and installation outline shall be furnished after final equipment placement.

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MANUFACTURER'S REPRESENTATIVE

P.O. Box 346, New Hartford, CT 06057  
Phone: (860) 738-2800 / Fax (860) 738-3314  
Email: Sales@JensenEquipment.net

**Submittal**  
**4/30/2021**

PROJECT: **Western Mass Hospital**  
91 East Mountain Rd.  
Westfield, MA 01085

SPECIFICATION SECTION: **235100**  
**Breechings, Chimneys and Stacks**

MANUFACTURER: **METAL-FAB INC.**  
**P.O. Box 1138**  
**Wichita, KS 67201**

## PERMANENT FLUE MATERIAL

PRODUCT TYPE: **METAL-FAB Model "FCS" Corr-Guard Condensing Boiler Exhaust Flue**

INNER CONSTRUCTION: 10"Ø ID - .015" Thick AL29-4C Superferritic Stainless Steel Inner Flue  
18"Ø ID - .024" Thick AL29-4C Superferritic Stainless Steel Inner Flue

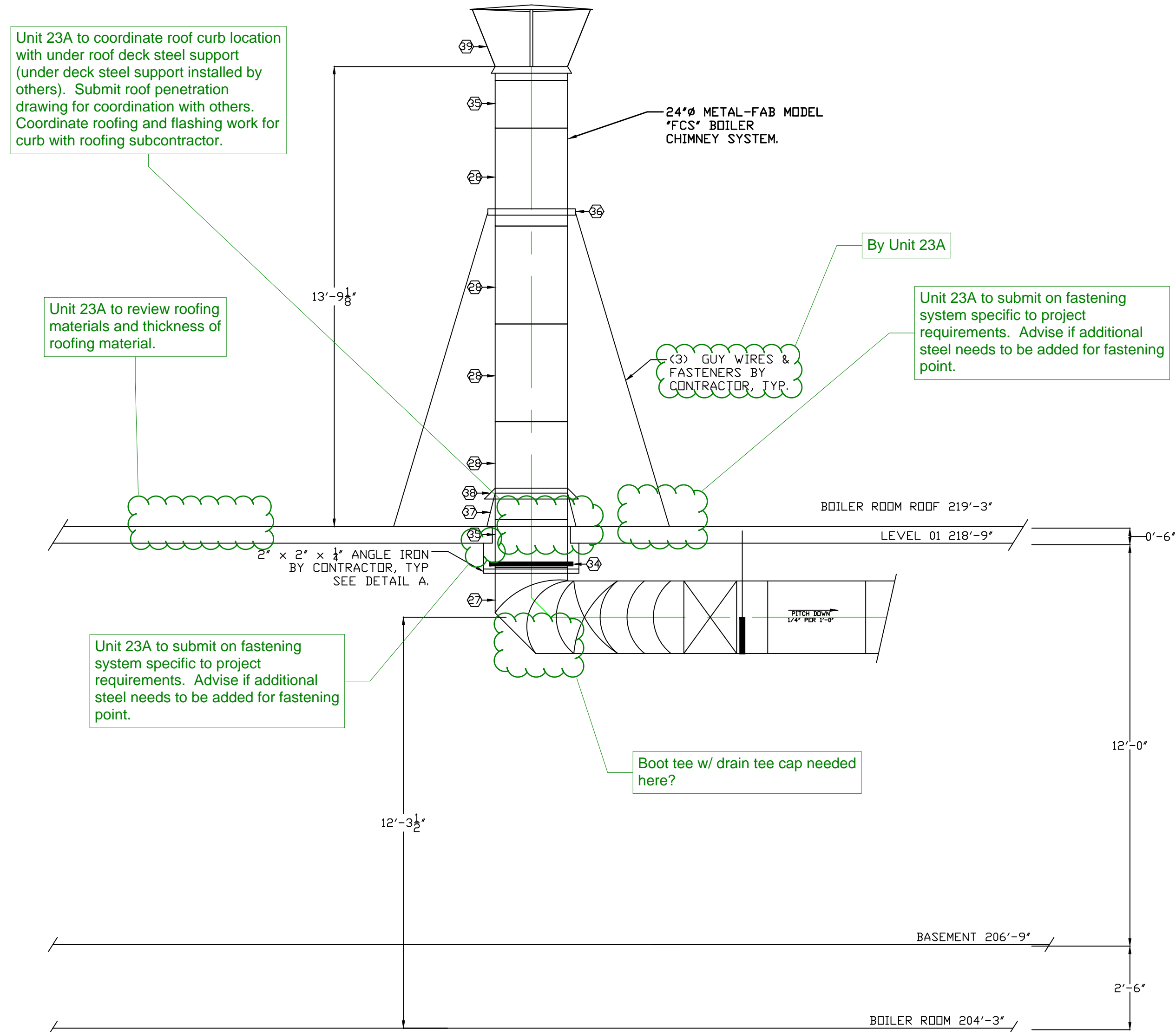
OUTER JACKET CONSTRUCTION: 12"Ø OD - .024" Thick 430 Stainless Steel Outer Jacket  
20"Ø OD - .024" Thick 430 Stainless Steel Outer Jacket

INSULATION: 1" of air space between the Inner Flue and Outer Jacket

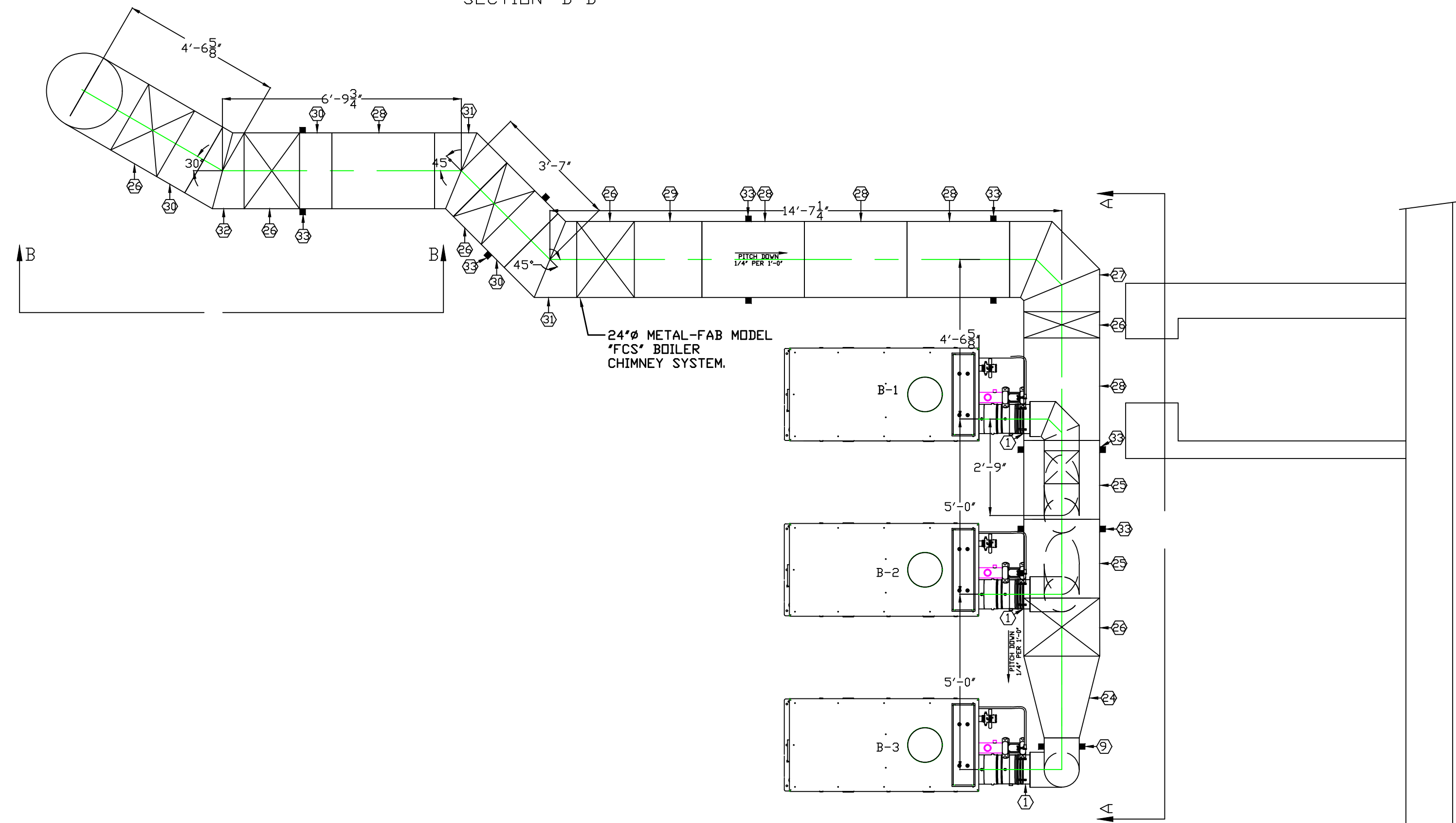
LISTINGS: **NFPA-54**  
UL-1738

Specification section 235100.2.1.B calls for flue pressure complying with NFPA-211

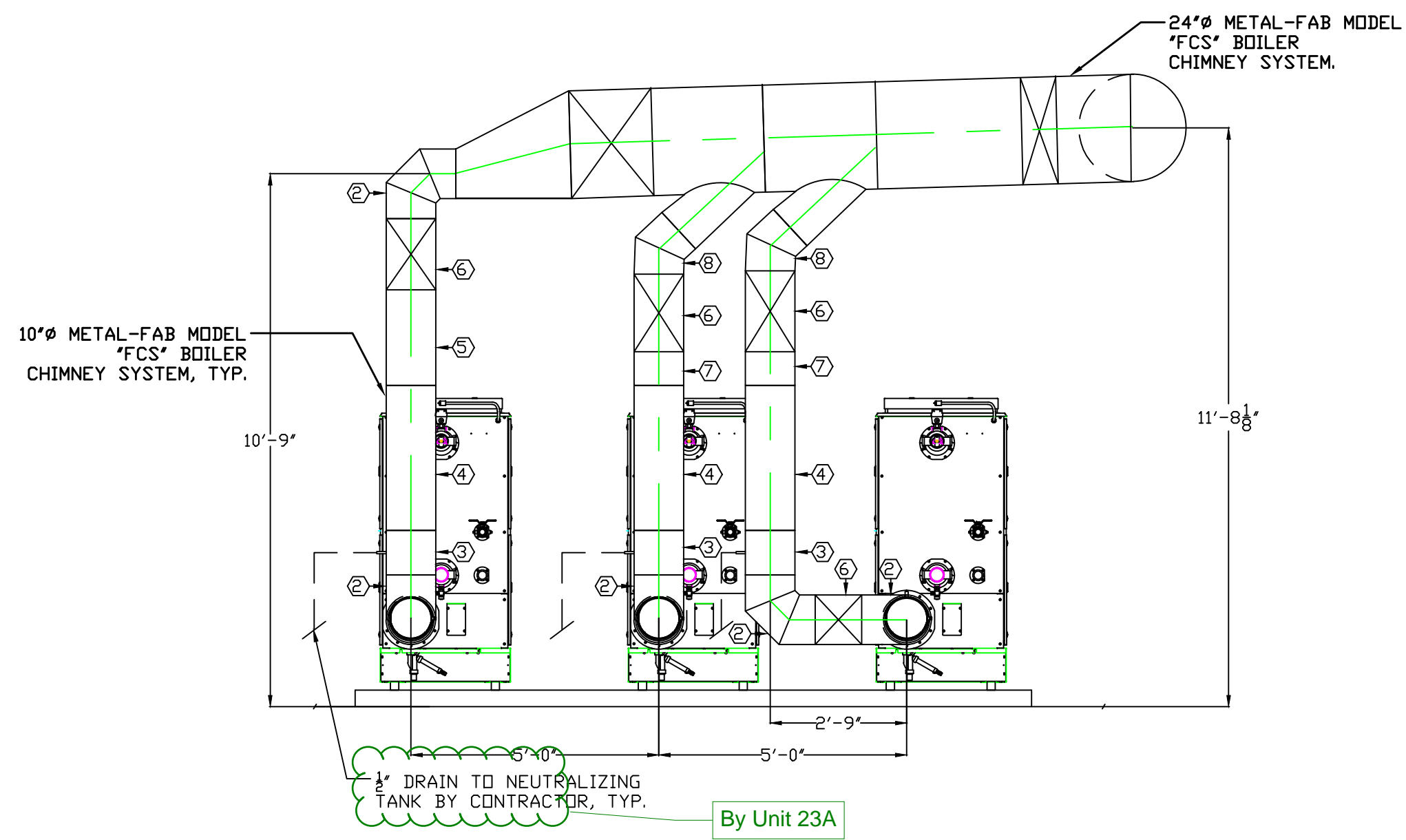
NOTES: Chimneys to be installed in accordance with manufacturer's recommendations, contract drawings and specifications. Field verified drawings detailing part numbers, support locations and installation outline shall be furnished after final equipment placement.



CHIMNEY SYSTEM ELEVATION DETAIL SECTION 'D-D'



CHIMNEY SYSTEM PLAN DETAIL TEMPORARY FLUE



CHIMNEY SYSTEM PLAN DETAIL SECTION 'A-A'

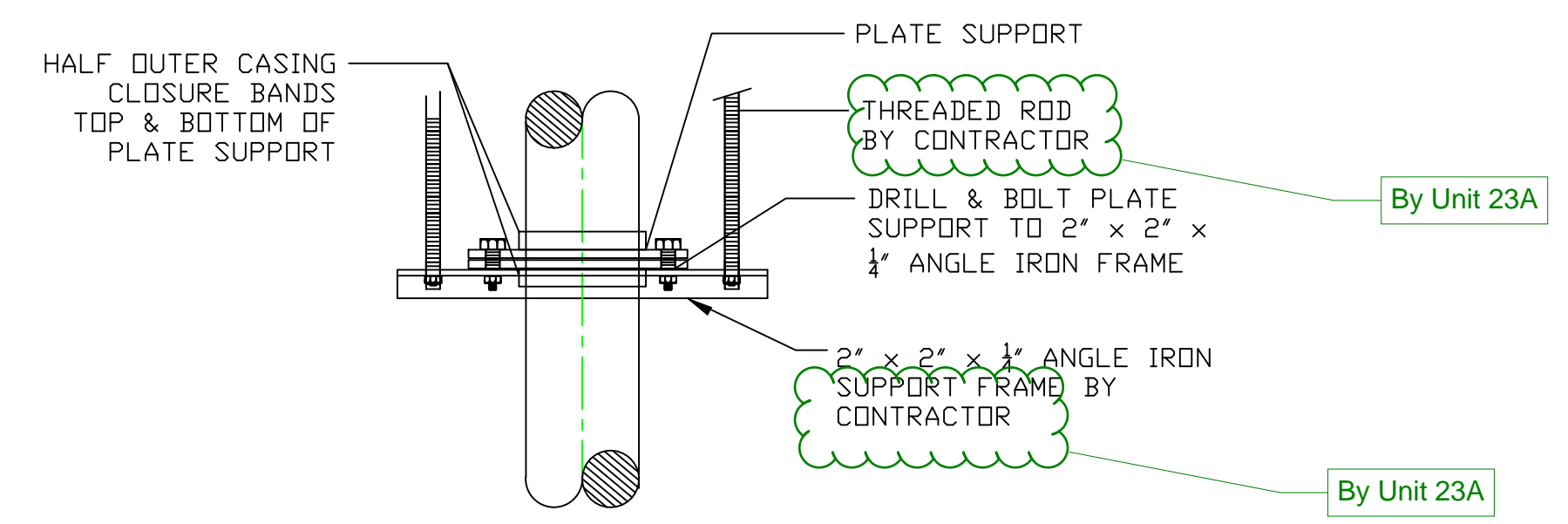


PLATE SUPPORT DETAIL DETAIL A

LEGEND		
ITEM #	PART #	PART DESCRIPTION
1	10FCSS8A	FLUE ADAPTOR
2	10FCSS90L	90° ELBOW
3	10FCSSDS	DRAIN SECTION
4	10FCSS36	36" LENGTH
5	10FCSS24	24" LENGTH
6	10FCSSVL22	VARIABLE LENGTH
7	10FCSS9	9" LENGTH
8	10FCSS45L	45° ELBOW
9	10FCSSHAR	HALF ANGLE RING
10	10FCSSIE18	ECCENTRIC INCREASER
11	18FCSS45T10	45° TEE, REDUCED TAP
12	18FCSS12	12" LENGTH
13	18FCSSVL22	VARIABLE LENGTH
14	18FCSS90L	90° ELBOW
15	18FCSSHAR	HALF ANGLE RING
16	18FCSSWSSA	SW STACK SUPPORT
17	18FCSSW36	SW 36" LENGTH
18	18FCSSW24	SW 24" LENGTH
19	18FCSSW19.625-C	SW 19.625" LENGTH CUSTOM
20	18FCSSW90T	SW 90° TEE
21	18PSSWFAR	SW FULL ANGLE RING
22	18FCSSWSC	SW STORM COLLAR
23	18FCSSWEC	SW EXIT CONE
24	10FCSSIE24	ECCENTRIC INCREASER
25	24FCSS45T10	45° TEE, REDUCED TAP
26	24FCSSVL22	VARIABLE LENGTH
27	24FCSS90L	90° ELBOW
28	24FCSS36	36" LENGTH
29	24FCSS24	24" LENGTH
30	24FCSS12	12" LENGTH
31	24FCSS45L	45° ELBOW
32	24FCSS30L	30° ELBOW
33	24FCSSHAR	HALF ANGLE RING
34	24FCSSPS	PLATE SUPPORT
35	24FCSS18	18" LENGTH
36	24FCSSGR	GUY RING
37	24FCSSP	TALL CONE FLASHING
38	24FCSSC	STORM COLLAR
39	24FCSSC	STACK CAP

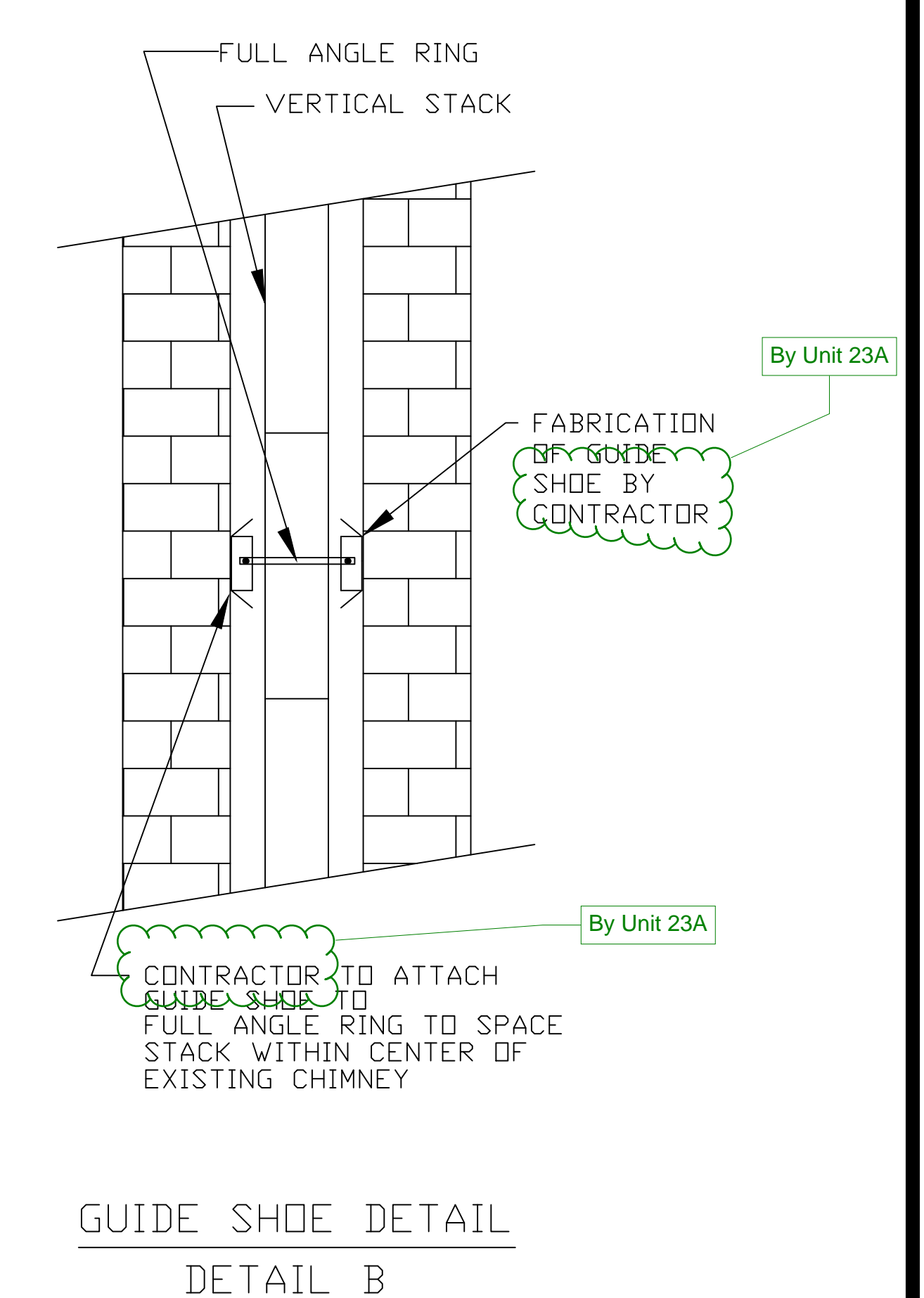
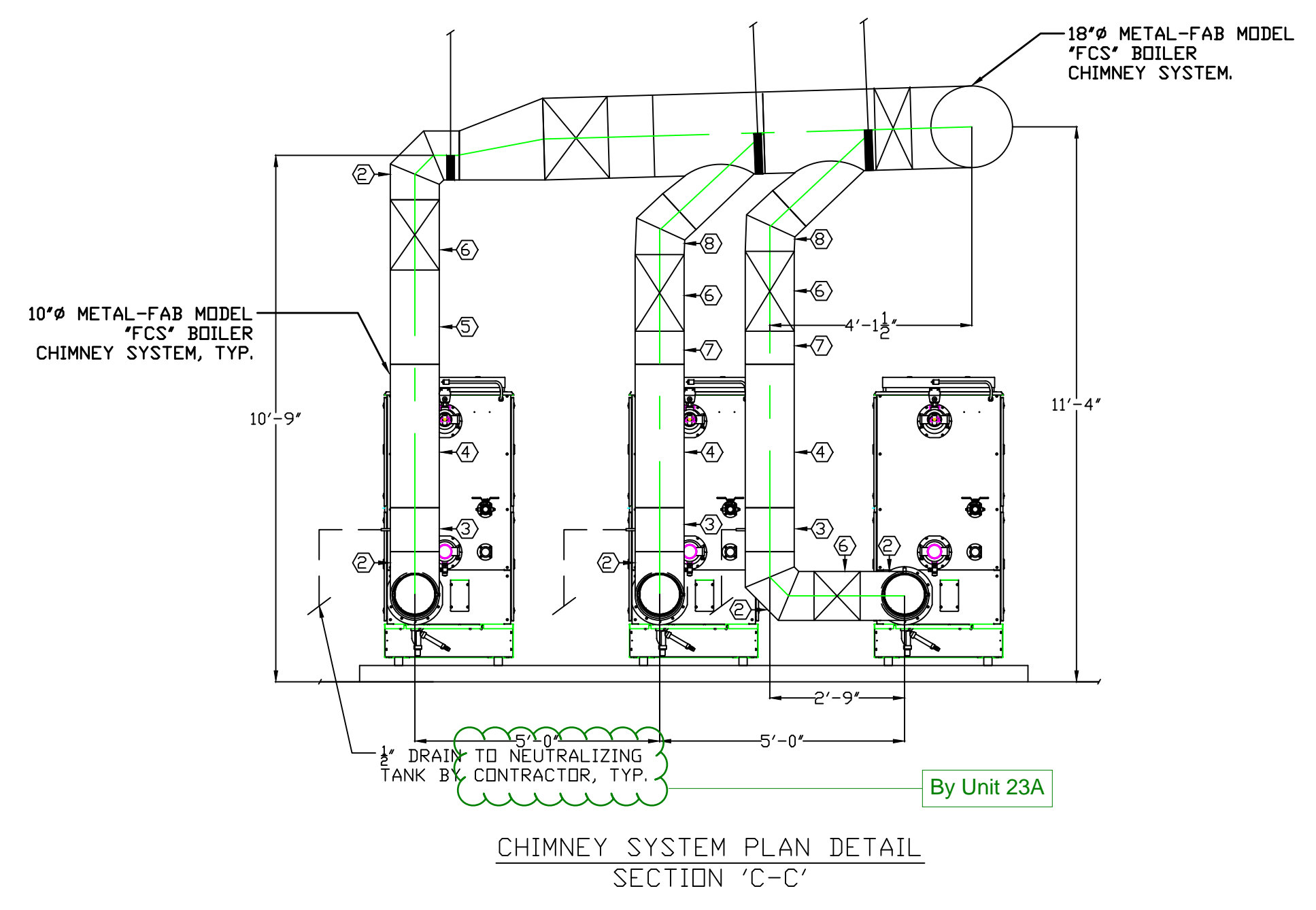
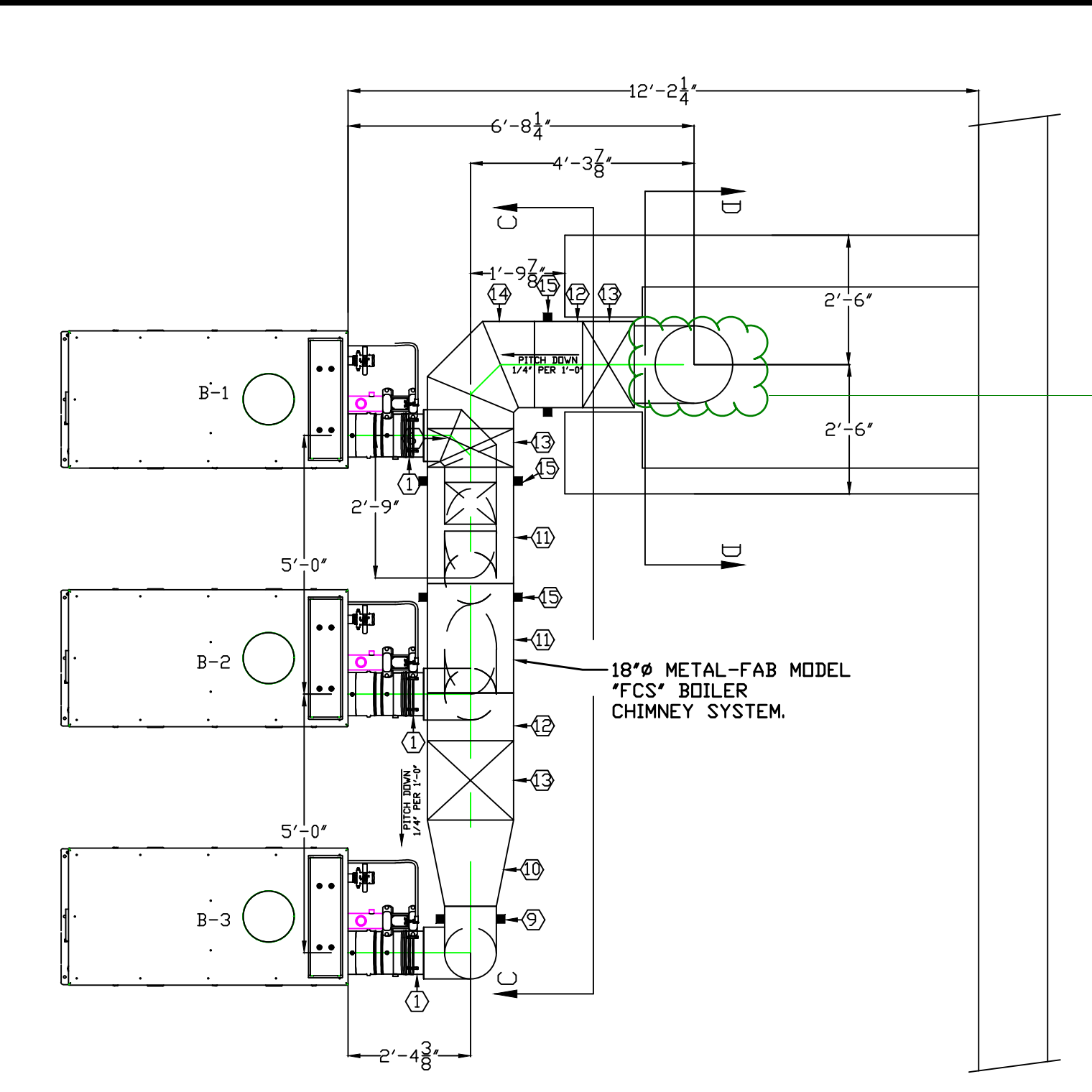
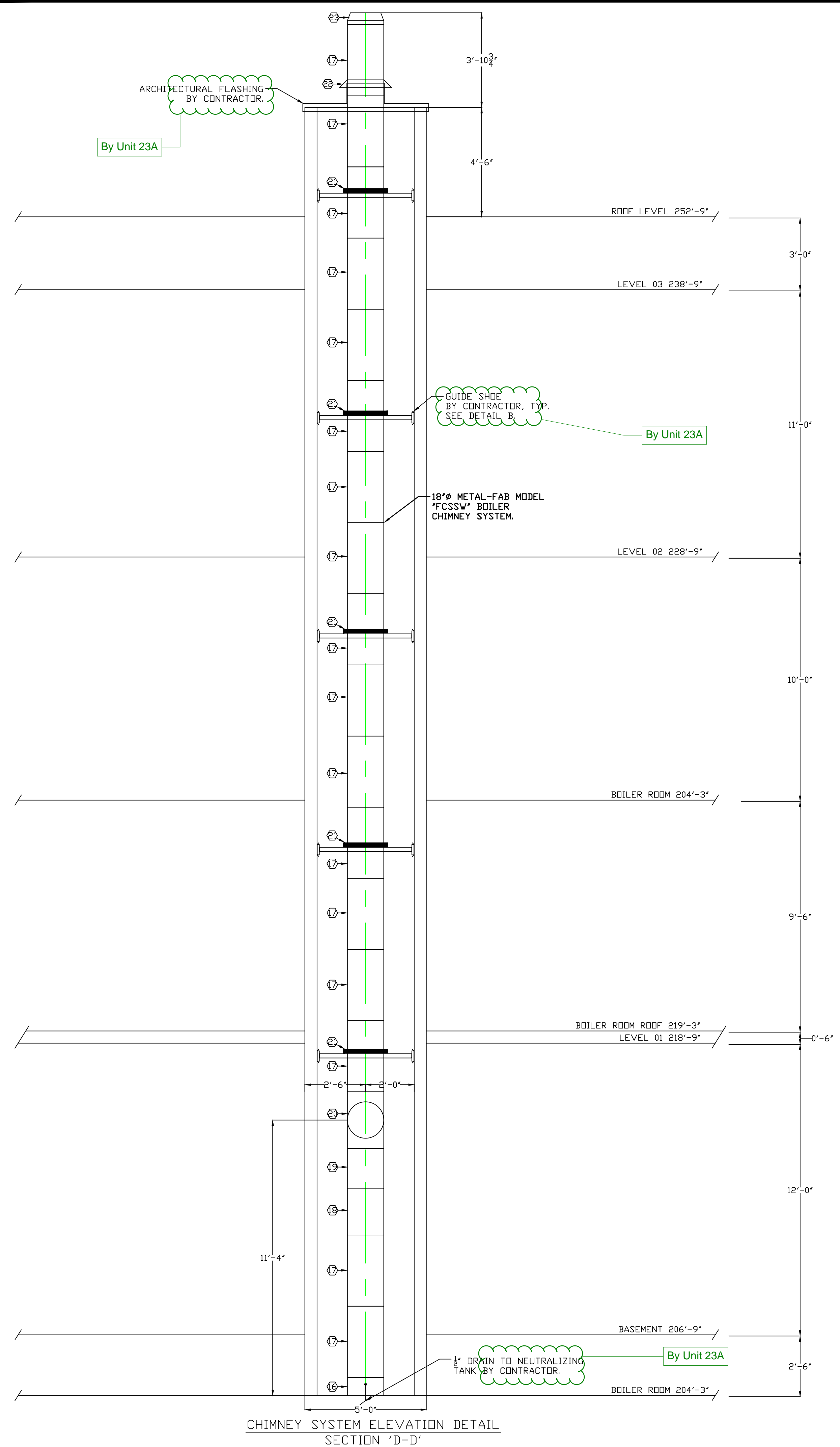
ALL INNER FLANGE BANDS SHALL BE SEALED WITH METAL-FAB MODEL PD 77 SEALANT  
ALL OUTER CASING JOINTS EXPOSED TO WEATHER SHALL BE SEALED WITH CLEAR SILICONE SEALER, SEALER BY CONTRACTOR

Unit 23A to submit on all sealants for review and approval.

**SUBMITTAL DRAWING  
NOT FOR CONSTRUCTION**

**JENSEN MECHANICAL EQUIPMENT, INC.**  
P.O. Box 346  
New Hartford, CT. 06057  
(860) 738-2800 FAX (860) 738-3314

JOB 5612 - WESTERN MASS HOSPITAL	
SHEET NO. 1	OF 2
CALCULATED BY J.B.	DATE 4/30/2021
CHECKED BY _____	DATE _____
SCALE 3/8"=1'-0"	



ITEM #	PART #	PART DESCRIPTION
1	10FCSS8A	FLUE ADAPTOR
2	10FCSS90L	90° ELBOW
3	10FCSSDS	DRAIN SECTION
4	10FCSS36	36" LENGTH
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35	24FCSS18	18" LENGTH
36	24FCSSGR	GUY RING
37	24FCSSP	TALL CONE FLASHING
38	24FCSSC	STORM COLLAR
39	24FCSSC	STACK CAP

ALL INNER FLANGE BANDS SHALL BE SEALED WITH METAL-FAB MODEL PD 77 SEALANT

ALL OUTER CASING JOINTS EXPOSED TO WEATHER SHALL BE SEALED WITH CLEAR SILICONE SEALER, SEALER BY CONTRACTOR

SUBMITTAL DRAWING  
NOT FOR CONSTRUCTION

JENSEN MECHANICAL EQUIPMENT, INC.  
P.O. Box 346  
New Hartford, CT. 06057  
(860) 738-2800 FAX (860) 738-3314

JOB: 5612 - WESTERN MASS HOSPITAL  
SHEET NO. 2 OF 2  
CALCULATED BY J.B. DATE 4/30/2021  
CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_  
SCALE 3/8"-1'-0"

# DESIGN MANUAL

**CORR/GUARD®**



Special Gas Vent 6" - 36" Diameters

# METAL-FAB

## CORR/GUARD® SPECIAL GAS VENT

Advanced design that cuts cost and time on the job!

### COMPLETE VENT LINE

- Including straight pipe lengths, adapters, elbows, tees, drain sections, support bands, flashing, caps and more. Single wall & double wall.
- 6" - 36" diameters; integral sleeve design.

### UNS S44735 STAINLESS STEEL FLUE (i.e. AL29-4C)

- Exceeds corrosion resistance requirements in UL1738 - Standard for Venting Systems for Gas-Burning Appliances, Categories II, III, and IV.

### SELECTION OF CASINGS

- Choose the most cost effective materials for the environment.
  - Aluminized Steel
  - 430 Stainless Steel
  - 304 Stainless Steel
  - 316 Stainless Steel

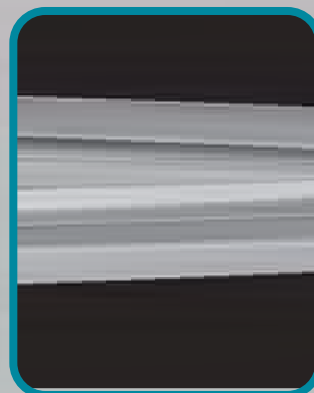
### LIMITED LIFETIME WARRANTY



*Integral Sleeve connections are formed to fit with precision at each connection.*



*All-welded construction provides liquid-tight performance and clean appearance.*



*Vee Band connectors are engineered for exact fit around flanges, providing a strong, liquid-tight connection.*

#### Also available: Corr/Guard® in 3"- 5" diameters

- Leak-proof Viton gasket
- One-step connection and snap-lock
- Single Wall and Double Wall

See Corr/Guard 3"-5" Brochure L2158 available at [www.metal-fabcommercial.com](http://www.metal-fabcommercial.com)

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## GENERAL INFORMATION

Pertinent information is consolidated in this publication to assist you with application information, codes and standards, dimensional information, support requirements and other data of special interest. It is our goal to enable you to select the proper product to meet the requirements of your project confidently and efficiently.

For additional information you may contact us via:

**Web Site:** [www.metal-fabcommercial.com](http://www.metal-fabcommercial.com)  
**Telephone:** 316-943-2351  
**Toll Free Phone:** 800-835-2830  
**Fax:** 316-771-4168  
**E-mail:** [info@metal-fabcommercial.com](mailto:info@metal-fabcommercial.com)

Complete information for proper and safe installations is found in the Metal-Fab Installation Instructions. (Literature No. L2591)

This design manual contains data to assist in the proper selection, design, and layout of venting systems using Metal-Fab models:

- **FCS** – Double Wall Special Gas Vent
- **FCSSW** – Single Wall Special Gas Vent
- **FCS-1** – Double Wall Insulated Special Gas Vent

## CODES AND STANDARDS

Corr/Guard is listed to UL 1738, Standard for Venting Systems for Gas-Burning Appliances, Categories II, III, IV and ULC S636. These requirements cover venting systems intended for venting Category II, III, and IV gas-burning appliances as defined by the Standard for Gas-Fired Central Furnaces (except Direct Vent Central Furnaces), ANSI Z21.47 and the National Fuel Gas Code, NFPA 54. Venting systems covered by these requirements are intended to be used with Category II, III, and IV appliances that have been installed in accordance with NFPA 54, the ICC International Mechanical Code, the IAPMO Uniform Mechanical Code, and local codes.

Corr/Guard vent material is UNS S44735 (i.e. AL29-4C) superferritic stainless steel. This vent is intended for use wherever appliance manufacturers specify superferritic stainless steel as the required vent material and, vent gas temperatures do not exceed those listed in the Metal-Fab Installation Instructions and the Application section of this manual.

Venting system design may be limited by appliance performance. Consult appliance installation instructions to determine limitations such as maximum horizontal length, maximum vertical height, elbow and offset limitations, and number of appliances permitted in a common vent.

Model FCSSW chimney liner systems, sizes 6" thru 36" diameter is intended for use in masonry chimneys used to vent Category II, III, or IV gas-fired appliances. FCSSW is suitable for installation in masonry chimneys having no clearance between combustible construction and the outer chimney surface. Model PSW chimney lining system, sizes 6" thru 36" diameter are intended for use in masonry chimneys used to vent gas fired appliances equipped with draft hoods; appliances equipped with draft hoods; appliances intended for use with Type B gas vents. PSW is suitable for installation in masonry chimneys having no clearance between combustible construction and the outer chimney surface.



# CORR/GUARD® PRODUCT INFORMATION

## Corr/Guard 6" – 12" Diameters To determine metric dimensions: multiply inches X 25.4

DESCRIPTION	DOUBLE WALL	SINGLE WALL
Max Operating Temperature Max Operating Pressure	550° F (288 C) 15" w.g.	550° F (288 C) 15" w.g.
Clearance to Combustibles ENCLOSED – VERTICAL @550°F (288 C)	1"	Can Not Be Enclosed with Combustible Material
Clearance to Combustibles ENCLOSED – HORIZONTAL	Can Not Be Enclosed with Combustible Material	Can Not Be Enclosed with Combustible Material
Clearance to Combustibles UNENCLOSED HORZ. or VERT. @ 550° F (288 C)	1"	2"
JOINT CONNECTION	SLEEVED – P077 Sealant Required	SLEEVED – P077 Sealant Required
Flue Material Thickness	UNS S44735 (i.e. AL29-4C) 0.015"	UNS S44735 (i.e. AL29-4C) 0.015"
Casing Materials	Std- Aluminized Steel 0.018" Opt – 430 Stainless Steel 0.024" Opt – 304 Stainless Steel 0.024" Opt – 316 Stainless Steel 0.024"	Not Applicable

## Corr/Guard 14" – 24" Diameters To determine metric dimensions: multiply inches X 25.4

DESCRIPTION	DOUBLE WALL	SINGLE WALL
Max Operating Temperature Max Operating Pressure	550° F (288 C) 15" w.g.	550° F (288 C) 15" w.g.
Clearance to Combustibles ENCLOSED – VERTICAL @550°F (288 C)	1"	Can Not Be Enclosed with Combustible Material
Clearance to Combustibles ENCLOSED – HORIZONTAL	Can Not Be Enclosed with Combustible Material	Can Not Be Enclosed with Combustible Material
Clearance to Combustibles UNENCLOSED HORZ. or VERT. @ 550° F (288 C)	14" – 18" = 2" 20" – 24" = 3"	14" – 18" = 3" 20" – 24" = 4"
JOINT CONNECTION	SLEEVED – P077 Sealant Required	SLEEVED – P077 Sealant Required
Flue Material Thickness	UNS S44735 (i.e. AL29-4C) 0.024	UNS S44735 (i.e. AL29-4C) 0.024
Casing Materials	Std- Aluminized Steel Opt – 430 Stainless Steel Opt – 304 Stainless Steel Opt – 316 Stainless Steel 0.024"	Not Applicable
Thickness		

## Corr/Guard 26" – 36" Diameters To determine metric dimensions: multiply inches X 25.4

DESCRIPTION	DOUBLE WALL	SINGLE WALL
Max Operating Temperature Max Operating Pressure	550° F (288 C) 15" w.g.	550° F (288 C) 15" w.g.
Clearance to Combustibles ENCLOSED – VERTICAL @550°F (288 C)	2"	Can Not Be Enclosed with Combustible Material
Clearance to Combustibles ENCLOSED – HORIZONTAL	Can Not Be Enclosed with Combustible Material	Can Not Be Enclosed with Combustible Material
Clearance to Combustibles UNENCLOSED HORZ. or VERT. @ 550° F (288 C)	26" – 30" = 4" 32" – 36" = 5"	26" – 30" = 5" 32" – 36" = 6"
JOINT CONNECTION	SLEEVED – P077 Sealant Required	SLEEVED – P077 Sealant Required
Flue Material Thickness	UNS S44735 (i.e. AL29-4C) 0.035	UNS S44735 (i.e. AL29-4C) 0.035
Casing Materials	Std- Aluminized Steel Opt – 430 Stainless Steel Opt – 304 Stainless Steel Opt – 316 Stainless Steel 0.035"	Not Applicable
Thickness		



## DESIGN CONSIDERATIONS

When venting gas appliances always consult the appliance installation instructions. Horizontal runs, elbows, offsets, vertical height, may be limited by appliance performance specifications.

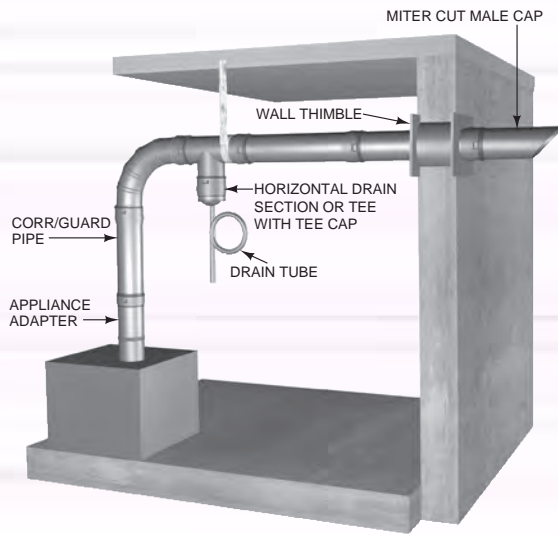
**Horizontal** runs must slope a minimum of ¼" : 12" (6mm-305mm). Neutral or negative pressure systems must slope upward – away from the appliance. Positive pressure within the vent may slope upward or downward. Provide for condensate drainage where required.

**Vertical** runs are directional-specific and must be properly supported. Supports are required above every offset to prevent vertical loading on elbows.

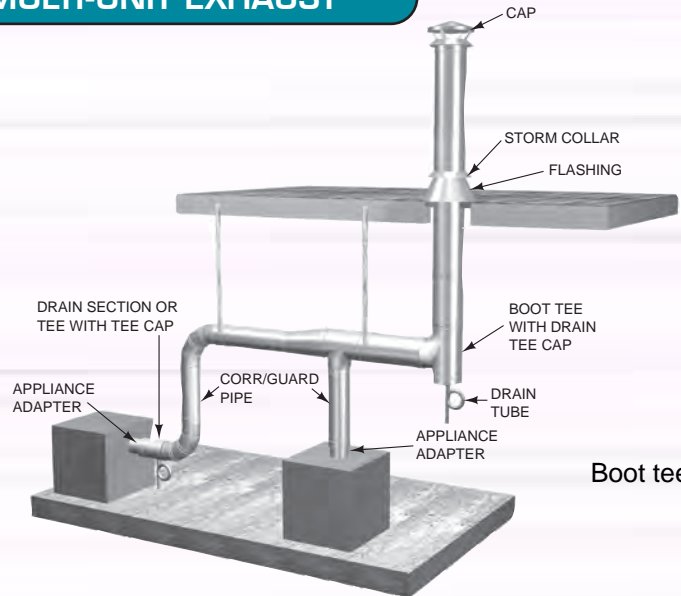
### NOTE:

For Additional Information  
See Corr/Guard Installation Instructions, No. L2591  
Available at: [www.metal-fabcommercial.com](http://www.metal-fabcommercial.com)

## SIDEWALL EXHAUST



## MULTI-UNIT EXHAUST



Boot tee w/ drain te

## COMPONENTS

Corr/Guard is identified as "FCSSW" and "FCS" designating the integral sleeve design incorporated in 6" – 36" diameters.

Corr/Guard is available in a multitude of material options to address your unique applications. To facilitate the ordering process we have a designated "CTO" code which allows you to **C**onfigure **I**n **O**rder. The CTO code consists of three (3) designators. The 1st identifies flue material; the 2nd identifies outer casing material, and the 3rd, a 0 or 1 indicates if the product is "air" or "ceramic fiber" insulated.

### Selections

FLUE	CASING	INSULATION
C – UNS S44735 (i.e. AL29-4C)	A – ALUMINIZED STEEL 3 – 430 STAINLESS 4 – 304 STAINLESS 6 – 316 STAINLESS	0 – Air Insulated 1 – Ceramic Insulated

### Example:

You have selected a 6" diameter pipe section, 36" in length, double wall construction, with a 430 stainless casing with ceramic fiber insulation. The part number is 6 (diameter)-FCS (sleeved Corr/Guard) 36" length. Additionally, you have selected the CTO code: C (UNS S44735 [i.e. AL29-4C] Stainless Flue) - 3 (430 Stainless Casing) -1 (Ceramic Insulated).

**The complete designation is: 6FCS36 – C31.**

## CORROSION RESISTANCE

Corr/Guard products are designed for use on today's highly efficient condensing appliances. UNS S44735 (i.e. AL29-4C), a Superferritic Stainless Steel was the first steel to successfully exceed the requirements of UL 1738, "Standard For Venting Systems For Gas-Burning Appliances, Categories II, III, and IV." It is considered the benchmark for condensing flue materials.

# FCS/FCSSW COMPONENTS 6" – 36" DIAMETERS

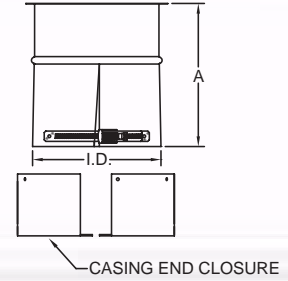
## SINGLE WALL BOILER ADAPTER (SBA)

Flow Resistance K = same as pipe.

6"- 24": A = 7" (178)

26"- 36": A = 6" (152)

Used to attach pipe to straight shank outlets. Attaches around exterior of collar. FCS SBA includes closure band. Not required on FCSSW.



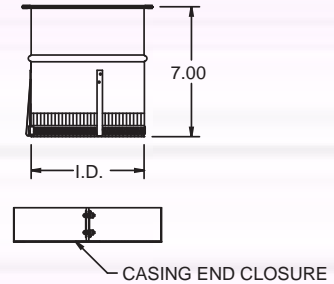
## SINGLE WALL BOILER ADAPTER – INSIDE (SBAI)

6" – 24" Diameters

Flow Resistance K = same as pipe.

Used on vertical outlets when appliance incorporates condensate drain.

**NOTE:** Not available above 24".



## REDUCER COLLAR (RC)

6" – 24" Diameters

Flow Resistance K = same as pipe.

A: Inlet Diameter

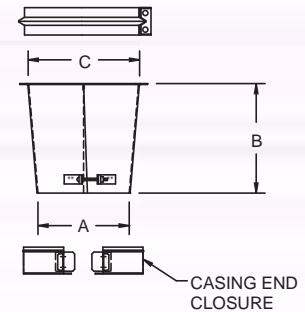
B: Component Length = 7"

C: Outlet Diameter

Used to attach pipe to an outlet source smaller than pipe diameter.

Specify dimensions when ordering.

**Example:** 8FCS7RC



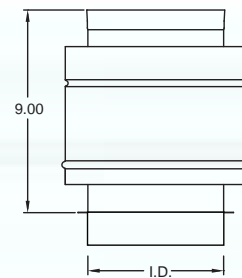
## FEMALE FLANGE CONNECTOR (FFC)

6" – 24" Diameters

Flow Resistance K = same as pipe.

Used to transition from FCS to CG

**NOTE:** Not available in 7" & 9" diameters.



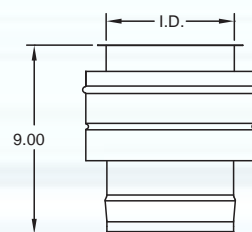
## MALE FLANGE CONNECTOR (MFC)

6" – 24" Diameters

Flow resistance K = same as pipe.

Used to transition from CG to FCS

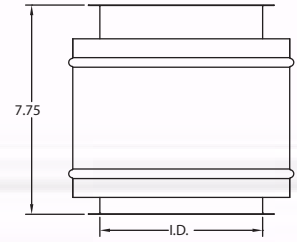
**NOTE:** Not available in 7" & 9" diameters.



## FEMALE TO FEMALE ADAPTER (DFA)

6" – 24" Diameters

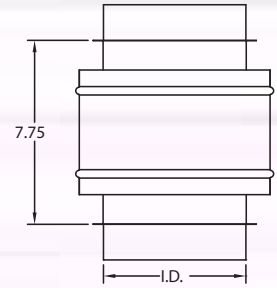
Used to change direction of slope.



## MALE TO MALE ADAPTER (DMA)

6" – 24" Diameters

Used to change direction of slope.

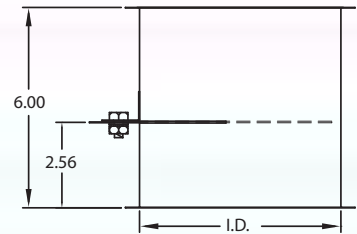


## BLAST GATE (BG)

6" – 12" Diameters

Used for balancing pressures in a common vent system.

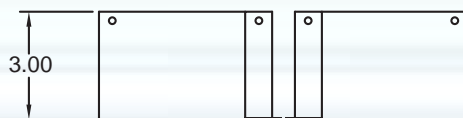
**Note:** Available in single wall only.



## CASING END CLOSURE (CEC)

Used as an end cover when transitioning from single wall to double wall construction. Attaches to casing with sheet metal screws.

**Note:** 26" - 36" Casing End Closure clamps around casing bead.



6" – 24" Diameters



26" – 36" Diameters

# FCS/FCSSW COMPONENTS 6" – 36" DIAMETERS

## PIPE LENGTHS

Flow Resistance  $K=.4 (\frac{L}{D})$  for 6"(152) - 16"(406) diameters

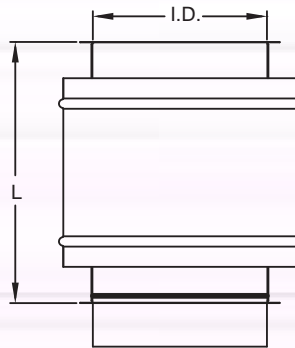
Flow Resistance  $K=.3 (\frac{L}{D})$  for 18"(457) - 36"(914) diameters

Flow Resistance  $K=.25 (\frac{L}{D})$  for Engine and turbine exhausts,

L = pipe length in feet

I.D. = pipe diameter in inches

**NOTE:** Custom lengths available, contact factory.



STRAIGHT LENGTH 26" THRU 36"	
PIPE LENGTHS	INSTALLED LENGTH (L)
9.00" (229)	7.88" (200)
12.00" (305)	10.88" (276)
18.00" (457)	16.88" (429)
24.00" (610)	22.88" (581)
36.00" (914)	34.88" (886)

STRAIGHT LENGTH 6" THRU 24"	
PIPE LENGTHS	INSTALLED LENGTH (L)
9.00" (229)	8.13" (207)
12.00" (305)	11.13" (283)
18.00" (457)	17.13" (435)
24.00" (610)	23.13" (588)
36.00" (914)	35.13" (893)

PIPE I.D.	PIPE O.D.
FCSSW	FCS
6" (152)	8" (203)
7" (178)	9" (229)
8" (203)	10" (254)
9" (229)	11" (279)
10" (254)	12" (305)
12" (305)	14" (356)
14" (356)	16" (406)
16" (407)	18" (457)
18" (457)	20" (508)
20" (508)	22" (559)
22" (559)	24" (610)
24" (610)	26" (660)
26" (661)	28" (711)
28" (711)	30" (762)
30" (762)	32" (813)
32" (813)	34" (864)
34" (864)	36" (914)
36" (914)	38" (965)

## VARIABLE LENGTH (VL22)

**6" – 24" Diameters**

Flow Resistance  $K = .4(\frac{L}{D})$

L = pipe length in feet

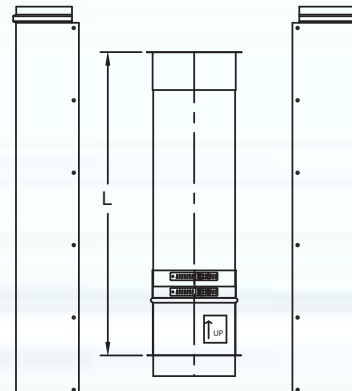
I.D. = flue diameter

Used to fill gaps between standard length components. Does not allow for thermal expansion.

**INSTALLED LENGTH (L)**

**VL22**

- Minimum: 9" (229)
- Maximum: 22" (559)



## VARIABLE LENGTH (VL10/VL22)

### 26" – 36" Diameters

Flow Resistance  $K = .4 \left(\frac{L}{D}\right)$

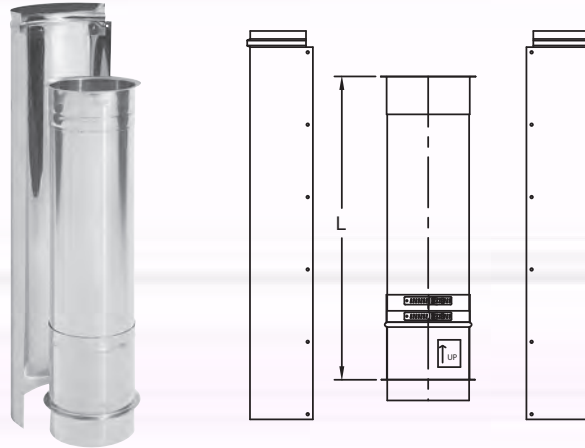
L = pipe length in feet

I.D. = flue diameter

Used to fill gaps between standard length components. Does not allow for thermal expansion.

### INSTALLED LENGTH (L)

	VL10	VL22
Minimum:	7" (178)	7" (178)
Maximum:	10" (254)	22" (559)



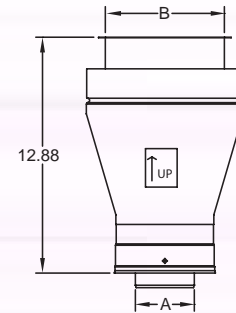
## TAPERED INCREASER (TI)

### 3" Diameter

Used to transition from CG to FCS.

A		B	
3.00"	(76)	6.00"	(152)

Dimensions in inches (mm).



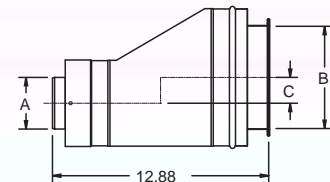
## ECCENTRIC TAPERED INCREASER (EI)

### 4" – 5" Diameters

Used to transition from CG to FCS.

A		B		C	
4.00"	(102)	6.00"	(152)	1.00"	(25)
5.00"	(127)	6.00"	(152)	0.50"	(13)

Dimensions in inches (mm).



## TAPERED INCREASER (TI)

Flow Resistance  $K = .51 \frac{[1 - (\frac{A}{C})^2]^2}{(\frac{A}{C})^4}$

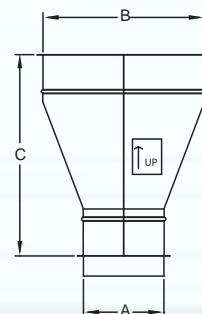
A = Inlet Diameter

B = Outlet Diameter

C = Installed Length – See Table

**NOTE:** ½ Step = 1" increase in diameter;  
1 Step = 2" increase in diameter

Steps	½ - 3	3 ½ - 6
"C" Length	15" (381)	20" (508)



When ordering, specify inlet and outlet diameters with inlet diameter first.

**Example:** 12FCSTI14

## ECCENTRIC TAPERED INCREASER (EI)

$$\text{Flow Resistance } K = .51 \frac{[1 - (\frac{A}{C})]^2}{(\frac{A}{C})^4}$$

A = Inlet Diameter

B = Outlet diameter

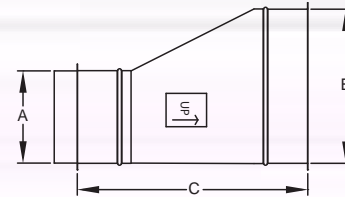
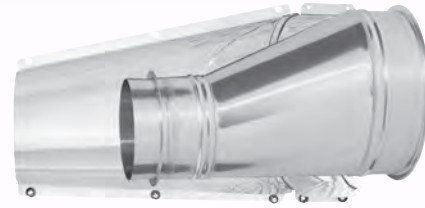
C = Installed Length – See Table

**NOTE:** ½ Step = 1" increase in diameter;  
1 Step = 2" increase in diameter

Steps	½ - 2	2 ½ - 4	4.5 – 6
"C" Length	15" (381)	21" (534)	28" (712)

When ordering, specify inlet and outlet diameters with inlet diameter first.

**Example:** 12FCSEI14



## TAPERED REDUCER (R)

6" – 24" Diameters

$$\text{Flow Resistance } K = .16 \frac{[1 - (\frac{A}{C})]^2}{(\frac{A}{C})^4}$$

A = Inlet Diameter

B = Outlet Diameter

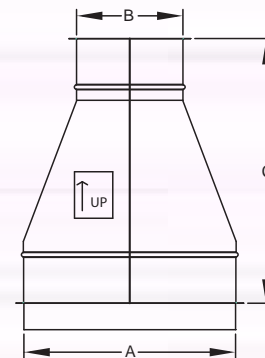
C = Installed Length – See Table

**NOTE:** ½ Step = 1" decrease in diameter;  
1 Step = 2" decrease in diameter

Steps	6 - 3 ½	3 - ½
"C" Length	20" (508)	15" (381)

When ordering, specify inlet and outlet diameters with inlet diameter first.

**Example:** 14FCR12



## ECCENTRIC REDUCER (ER)

6" – 24" Diameters

$$\text{Flow Resistance } K = .16 \frac{[1 - (\frac{A}{C})]^2}{(\frac{A}{C})^4}$$

A = Inlet Diameter

B = Outlet diameter

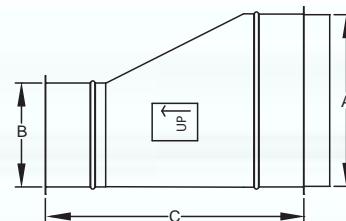
C = Installed Length – See Table

**NOTE:** ½ Step = 1" decrease in diameter;  
1 Step = 2" decrease in diameter

Steps	6 - 4 ½	4 - 2 ½	2 - ½
"C" Length	28" (712)	21" (534)	15" (381)

When ordering, specify inlet and outlet diameters with inlet diameter first.

**Example:** 14FCSER12



## 15° ELBOW (15L)

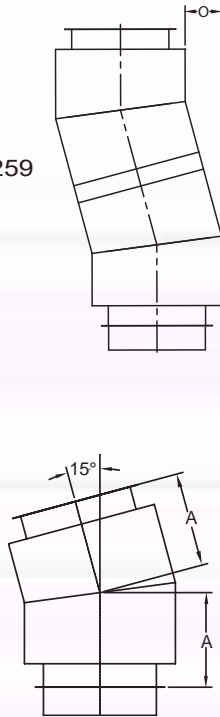
Flow Resistance K = 0.06

Offset Distance:

$$O = 2 \times "A" \times 0.259$$

Offset distance with pipe length between elbows:

$$O = (2 \times "A" + \text{pipe length}) \times 0.259$$



## 30° ELBOW (30L)

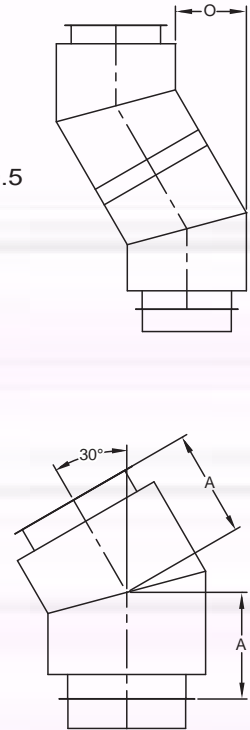
Flow Resistance K = 0.12

Offset Distance:

$$O = 2 \times "A" \times 0.5$$

Offset distance with pipe length between elbows:

$$O = (2 \times "A" + \text{pipe length}) \times 0.5$$



PIPE I.D.		A	
		FCSSW / FCS	
6"	(152)	4.56"	(116)
7"	(178)	4.63"	(118)
8"	(204)	4.68"	(119)
9"	(229)	4.75"	(121)
10"	(254)	4.88"	(124)
12"	(305)	5.00"	(127)
14"	(356)	5.13"	(130)
16"	(406)	5.25"	(133)
18"	(457)	5.38"	(137)
20"	(508)	5.50"	(140)
22"	(559)	5.63"	(143)
24"	(610)	5.75"	(146)
26"	(660)	8.50"	(216)
28"	(711)	8.50"	(216)
30"	(762)	8.50"	(216)
32"	(813)	8.50"	(216)
34"	(864)	8.50"	(216)
36"	(914)	8.50"	(216)

Dimensions in inches (mm).

PIPE I.D.		A	
		FCSSW / FCS	
6"	(152)	5.00"	(127)
7"	(178)	5.13"	(130)
8"	(204)	5.25"	(133)
9"	(229)	5.38"	(137)
10"	(254)	5.50"	(140)
12"	(305)	5.75"	(146)
14"	(356)	6.06"	(154)
16"	(406)	6.38"	(162)
18"	(457)	6.63"	(168)
20"	(508)	6.88"	(175)
22"	(559)	7.13"	(181)
24"	(610)	7.38"	(187)
26"	(660)	8.50"	(216)
28"	(711)	8.50"	(216)
30"	(762)	8.50"	(216)
32"	(813)	8.50"	(216)
34"	(864)	8.50"	(216)
36"	(914)	8.50"	(216)

Dimensions in inches (mm).

# FCS/FCSSW COMPONENTS 6" – 36" DIAMETERS

## 45° ELBOW (45L)

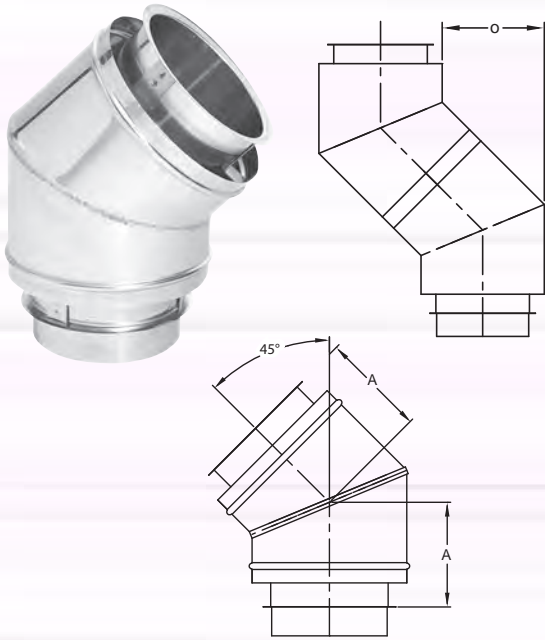
Flow Resistance K = 0.15

Offset Distance:

$$O = 2 \times "A" \times 0.707$$

Offset Distance with pipe length between elbows:

$$O = (2 \times "A" + \text{pipe length}) \times 0.707$$



PIPE I.D.		A	
		FCSSW / FCS	
6"	(152)	5.44"	(138)
7"	(178)	5.63"	(143)
8"	(204)	5.86"	(149)
9"	(229)	6.06"	(154)
10"	(254)	6.26"	(159)
12"	(305)	6.76"	(172)
14"	(356)	7.13"	(181)
16"	(406)	7.51"	(191)
18"	(457)	7.94"	(202)
20"	(508)	8.32"	(211)
22"	(559)	8.76"	(223)
24"	(610)	9.26"	(235)
26"	(660)	11.75"	(299)
28"	(711)	11.75"	(299)
30"	(762)	11.75"	(299)
32"	(813)	11.75"	(299)
34"	(864)	11.75"	(299)
36"	(914)	11.75"	(299)

Dimensions in inches (mm).

## 90° ELBOW (90L)

Flow Resistance K:

$$6" - 8" = 0.38$$

$$9" - 18" = 0.42$$

$$20" - 26" = 0.54$$

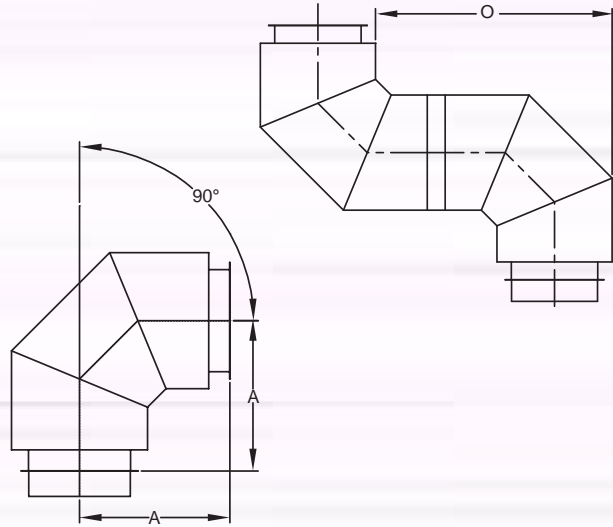
$$28" - 36" = 0.72$$

Offset Distance:

$$O = 2 \times "A"$$

Offset Distance with pipe length between elbows:

$$O = 2 \times "A" + \text{pipe length}$$



PIPE I.D.		A	
		FCSSW / FCS	
6"	(152)	8.88"	(226)
7"	(178)	9.38"	(238)
8"	(203)	9.88"	(251)
9"	(229)	10.38"	(264)
10"	(254)	10.88"	(276)
12"	(305)	11.88"	(302)
14"	(356)	12.88"	(327)
16"	(406)	13.88"	(353)
18"	(457)	14.88"	(378)
20"	(508)	15.88"	(403)
22"	(559)	16.88"	(429)
24"	(610)	17.88"	(454)
26"	(660)	21.00"	(533)
28"	(711)	22.00"	(559)
30"	(762)	23.00"	(584)
32"	(813)	24.00"	(610)
34"	(864)	25.00"	(635)
36"	(914)	26.00"	(660)

Dimensions in inches (mm).



## BOOT TEE (BT)

6" – 24" Diameters

Flow Resistance  $K = 0.65$

A = Pipe I.D.

B = "C" I.D. + 12"

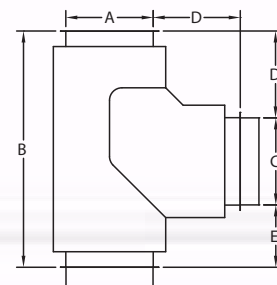
C = Tap I.D.

D = 7"

E = 5"

**NOTES:**

1. Specify tap diameter (C) at time of order.
2. Tap can be reduced by 1-4 steps as standard.



## BOOT TEE W/ DRAIN (BTD)

6" – 24" Diameters

Flow Resistance  $K = 0.65$

A = Pipe I.D.

B = "C" I.D. + 9.375"

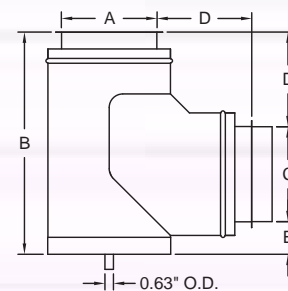
C = Tap I.D.

D = 7"

E = 2.375"

**NOTES:**

1. Specify tap diameter (C) at time of order.
2. Tap can be reduced by 1-4 steps as standard.



## 90° TEE (T)

Flow Resistance  $K = 1.25$

A = Pipe I.D.

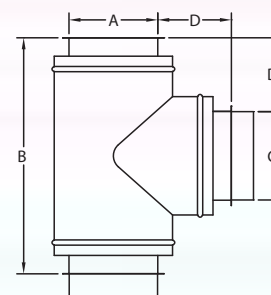
B = "C" I.D. + 10"

C = Tap I.D.

D = 5"

**NOTES:**

1. Specify tap diameter (C) at time of order.
2. Tap can be reduced by 1-4 steps as standard.



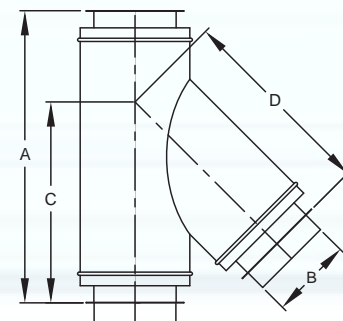
## 45° TEE (45T)

Flow Resistance  $K = 0.4$

Used for low resistance flow into vertical or horizontal run.

**NOTES:**

1. Specify tap diameter (B) at time of order.
2. Tap can be reduced by 1-4 steps as standard.
3. For dimensional information see tables on page 28.



# FCS/FCSSW COMPONENTS 6" – 36" DIAMETERS

## DOUBLE LATERAL (DL)

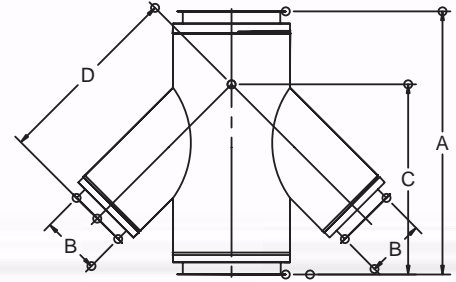
**26" – 36" Diameters**

Flow Resistance  $K = 0.4$

Used to centrally connect two appliances manifolded into a common chimney.

**NOTES:**

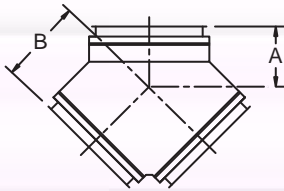
1. Specify tap diameter (B) when ordering; tap diameter must be less than body diameter.
2. Tap can be reduced by 1-4 steps as standard.
3. For dimensional information see tables on page 28.



## 90° WYE (90Y)

**26" – 36" Diameters**

Flow Resistance  $K = 0.6$



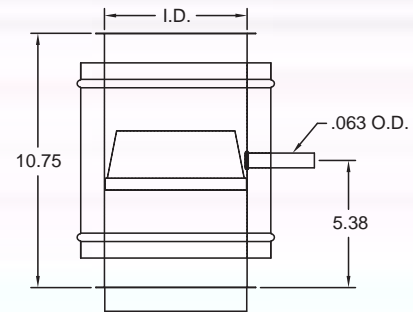
PIPE I.D.	FCSSW / FCS	
	A	B
26" (660)	9.37" (238)	19.00" (483)
28" (711)	9.75" (248)	20.00" (508)
30" (762)	10.25" (261)	21.00" (533)
32" (813)	10.62" (270)	22.00" (559)
34" (864)	11.12" (283)	23.00" (584)
36" (914)	11.50" (292)	24.00" (610)

## DRAIN SECTION (DS)

**6" – 24" Diameters**

Flow Resistance  $K = 0.25$

Used to drain rain water or condensation from inside the stack.

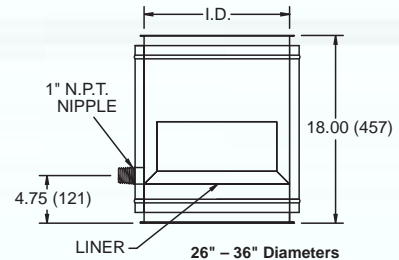


## DRAIN SECTION (DS)

**26" – 36" Diameters**

Flow Resistance  $K = 0.25$

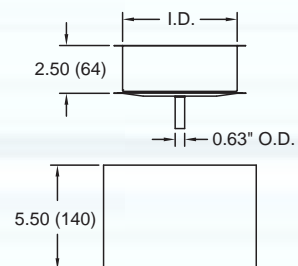
Used to drain rain water or condensation from inside the stack.



## DRAIN TEE CAP W/CASING END CLOSURE (TC)

**6" – 24" Diameters**

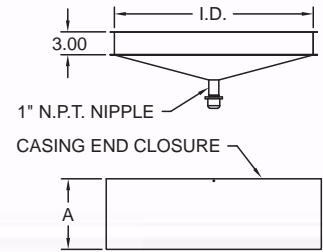
Used as a drain port for rain or condensation.



## DRAIN TEE CAP W / CASING END CLOSURE (TC)

26" – 36" Diameters

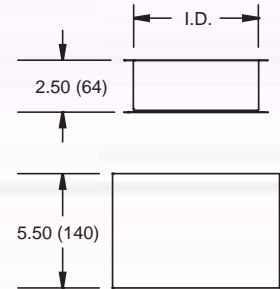
Used as a drain port for rain or condensation.



## TEE CAP LESS DRAIN W / CASING END CLOSURE (TCN)

6" – 24" Diameters

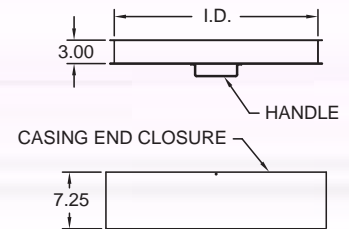
Used to close and seal unused port of Tees, Wyes and Laterals.



## TEE CAP LESS DRAIN W / CASING END CLOSURE (TCN)

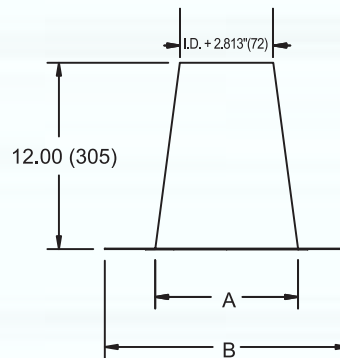
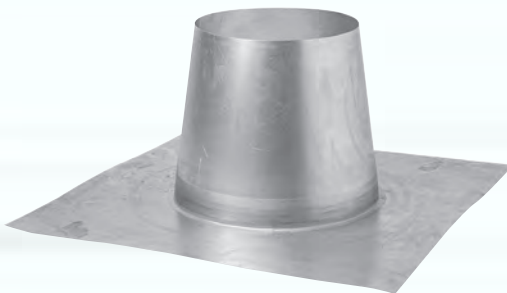
26" – 36" Diameters

Used to close and seal unused port of Tees, Wyes and Laterals.



## TALL CONE FLASHING (F)

Used for flat roof applications.



PIPE I.D.		FCSSW/FCS			
		A		B	
6"	(152)	12.00"	(305)	24.00"	(610)
7"	(178)	13.00"	(330)	25.00"	(635)
8"	(203)	14.00"	(356)	26.00"	(660)
9"	(229)	15.00"	(381)	27.00"	(686)
10"	(254)	16.00"	(407)	28.00"	(712)
12"	(305)	18.00"	(458)	30.00"	(762)
14"	(356)	20.00"	(508)	32.00"	(813)
16"	(406)	22.00"	(559)	34.00"	(864)
18"	(457)	24.00"	(610)	36.00"	(915)
20"	(508)	26.00"	(660)	38.00"	(966)
22"	(559)	28.00"	(712)	40.00"	(1016)
24"	(610)	30.00"	(762)	42.00"	(1067)
26"	(660)	32.00"	(813)	44.00"	(1118)
28"	(712)	34.00"	(864)	46.00"	(1168)
30"	(762)	36.00"	(914)	48.00"	(1219)
32"	(813)	38.00"	(965)	50.00"	(1270)
34"	(864)	40.00"	(1016)	52.00"	(1321)
36"	(914)	42.00"	(1067)	54.00"	(1372)

Dimensions in inches (mm).

# FCS/FCSSW COMPONENTS 6" – 36" DIAMETERS

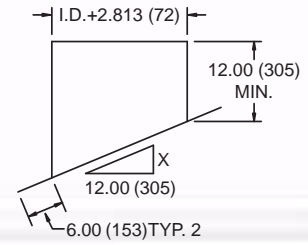
## FIXED PITCH FLASHING (FPF)

**NOTE:**

X=PITCH RATE, AVAILABLE RATES 1/12-12/12.  
Please specify pitch rate with order.

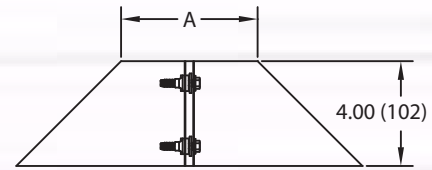
When ordering, specify pipe diameter followed by pitch rate.

**Example:** 6FCSFPF4



## STORM COLLAR (SC)

A = Pipe Diameter (O.D.)

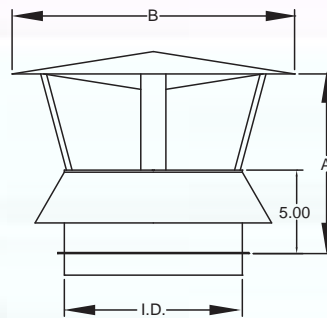
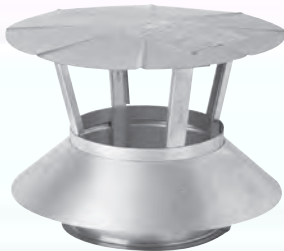


## STACK CAP (C/CB)

Flow resistance K = 0.5

Provides partial rain protection. Use of Drain Tee Cap (TC) or Drain Section (DS) is recommended.

**NOTES:** Also available with bird screen order as (CB).  
26"-36" diameters are custom; please contact factory.



PIPE I.D.	A	B
6" (152)	9.50" (241)	11.00" (280)
7" (178)	10.50" (267)	12.50" (318)
8" (203)	11.50" (292)	14.00" (356)
9" (229)	12.75" (324)	15.50" (394)
10" (254)	13.50" (343)	17.00" (432)
12" (305)	14.50" (368)	21.00" (533)
14" (356)	15.50" (394)	24.00" (610)
16" (407)	17.50" (445)	28.00" (712)
18" (458)	18.50" (470)	31.00" (787)
20" (508)	20.50" (521)	34.00" (864)
22" (559)	21.50" (546)	38.00" (965)
24" (610)	23.50" (597)	41.00" (1041)
26" (660)	25.50" (648)	44.00" (1118)
28" (712)	27.50" (699)	48.00" (1219)
30" (762)	29.50" (749)	51.00" (1295)
32" (813)	31.50" (800)	54.00" (1372)
34" (864)	33.50" (851)	58.00" (1473)
36" (914)	35.50" (902)	61.00" (1549)

Dimensions in inches (mm).

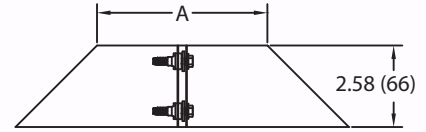
# FCS/FCSSW COMPONENTS 6" – 36" DIAMETERS

## CLOSURE RING (CR)

A = Pipe Diameter (I.D.)

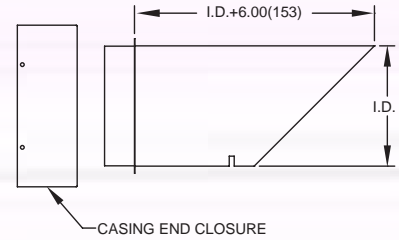
Used to attach to flue and shield annular space from the weather when open stack is desired.

**NOTE:** Provide a Tee Cap (TC) or Drain Section (DS) for moisture removal.



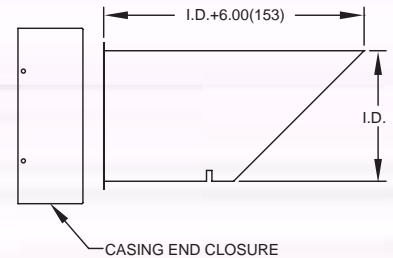
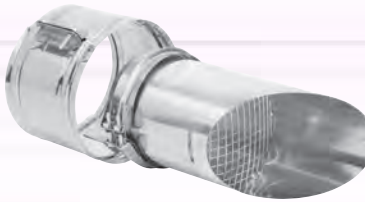
## MITER CUT MALE (MCM)

Used for horizontal termination sloping toward the appliance. Standard with bird screen.



## MITER CUT FEMALE (MCF)

Used for horizontal termination sloping away from the appliance. Standard with bird screen.



## EXIT CONE (EC)

6" – 24" Diameters

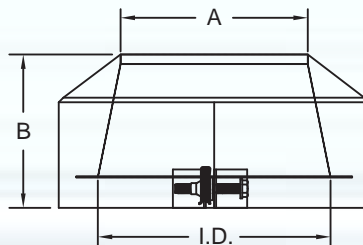
Flow resistance  $K = 1.25$

Used to increase velocity of exiting flue gases. Provide for moisture removal with Tee Cap or Drain Section.



PIPE I.D.	A	B	PIPE I.D.	A	B
6" (152)	6.00" (152)	4.50" (114)	14" (356)	14.00" (356)	12.50" (318)
7" (178)	7.00" (178)	5.50" (140)	16" (407)	16.00" (407)	14.50" (368)
8" (203)	8.00" (203)	6.50" (165)	18" (458)	18.00" (457)	16.50" (419)
9" (229)	9.00" (229)	7.50" (191)	20" (508)	20.00" (508)	18.50" (470)
10" (254)	10.00" (254)	8.50" (216)	22" (559)	22.00" (559)	20.50" (521)
12" (305)	12.00" (305)	10.50" (267)	24" (610)	24.00" (597)	22.50" (572)

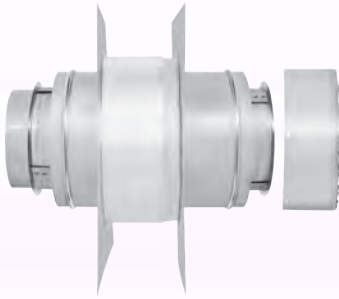
Dimensions in inches (mm).



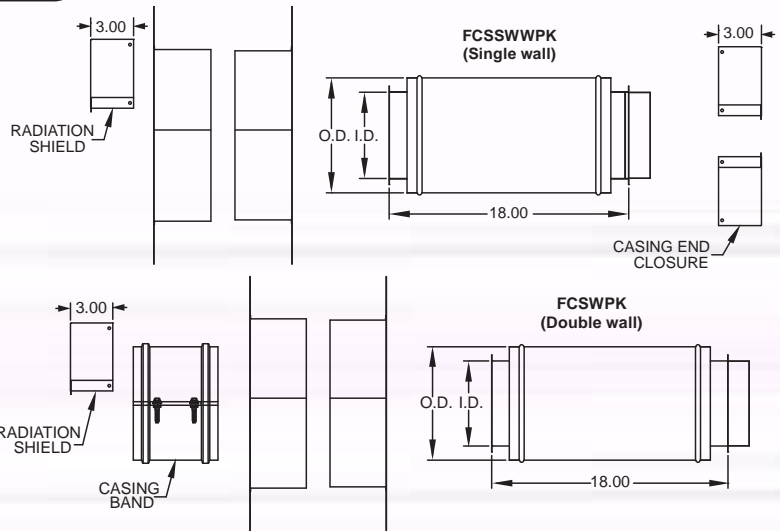
# FCS/FCSSW COMPONENTS 6" – 36" DIAMETERS

## WALL PENETRATOR KIT (WPK)

Used for horizontal wall penetrations, designed for non-fire rated walls. (Zinc Plated)



Framing dimension I.D. + 6"

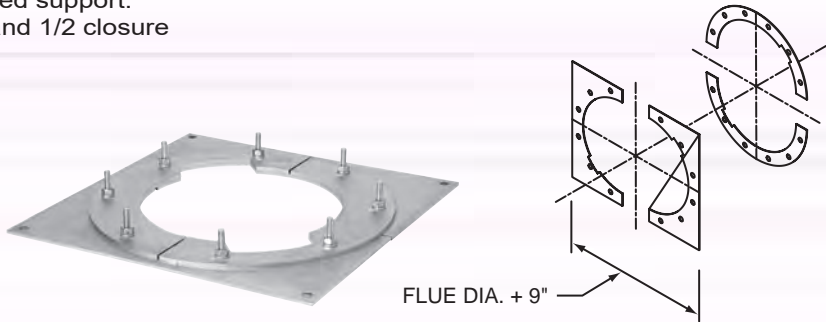


## PLATE SUPPORT (PS)

Provides vertical or horizontal anchored support. Includes split plates, clamp flanges, and 1/2 closure bands. (Zinc Plated)

Do not exceed "X" between supports.

6" – 12" FCSSW	X = 100'
14" – 24" FCSSW	X = 75'
26" – 36" FCSSW	X = 100'
6" – 12" FCS	X = 50'
14" – 24" FCS	X = 30'
26" – 36" FCS	X = 100'

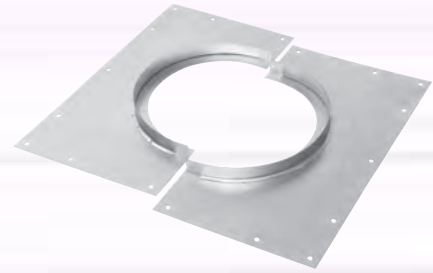
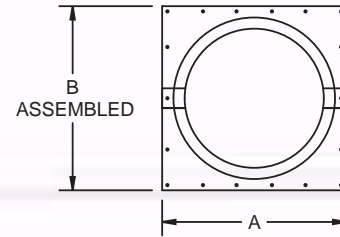


**NOTE:** Does not allow for thermal expansion.

## FIRESTOP (FS)

PIPE I.D.		FCSSW				FCS			
		A		B		A		B	
6"	(152)	16.00"	(407)	16.00"	(407)	18.00"	(458)	18.00"	(458)
7"	(178)	17.00"	(432)	17.00"	(432)	19.00"	(483)	19.00"	(483)
8"	(203)	18.00"	(458)	18.00"	(458)	20.00"	(508)	20.00"	(508)
9"	(229)	19.00"	(483)	19.00"	(483)	21.00"	(533)	21.00"	(533)
10"	(254)	20.00"	(508)	20.00"	(508)	22.00"	(559)	22.00"	(559)
12"	(305)	22.00"	(559)	22.00"	(559)	24.00"	(610)	24.00"	(610)
14"	(356)	24.00"	(610)	24.00"	(610)	26.00"	(660)	26.00"	(660)
16"	(406)	26.00"	(660)	26.00"	(660)	28.00"	(712)	28.00"	(712)
18"	(457)	28.00"	(712)	28.00"	(712)	30.00"	(762)	30.00"	(762)
20"	(508)	30.00"	(762)	30.00"	(762)	32.00"	(813)	32.00"	(813)
22"	(559)	32.00"	(813)	32.00"	(813)	34.00"	(864)	34.00"	(864)
24"	(610)	34.00"	(864)	34.00"	(864)	36.00"	(914)	36.00"	(914)
26"	(660)	36.00"	(914)	36.00"	(914)	38.00"	(965)	38.00"	(965)
28"	(711)	38.00"	(966)	38.00"	(965)	40.00"	(1016)	40.00"	(1016)
30"	(762)	40.00"	(1016)	40.00"	(1016)	42.00"	(1067)	42.00"	(1067)
32"	(813)	42.00"	(1067)	42.00"	(1067)	44.00"	(1118)	44.00"	(1118)
34"	(864)	44.00"	(1118)	44.00"	(1118)	46.00"	(1168)	46.00"	(1168)
36"	(914)	46.00"	(1168)	46.00"	(1168)	48.00"	(1219)	48.00"	(1219)

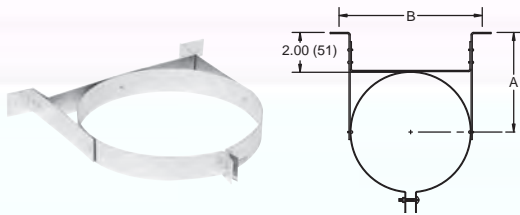
Dimensions in inches (mm).



## WALL BAND (WB)

6" – 16" Diameters

For interior use only. Do not exceed 8' 0" between supports.



PIPE I.D.		FCSSW				FCS			
		A		B		A		B	
6"	(152)	5.00"	(127)	7.07"	(180)	6.00"	(152)	9.07"	(230)
7"	(178)	5.50"	(140)	8.07"	(205)	6.50"	(165)	10.07"	(256)
8"	(204)	6.00"	(152)	9.07"	(230)	7.00"	(178)	11.07"	(281)
9"	(229)	6.50"	(165)	10.07"	(256)	7.50"	(191)	12.07"	(307)
10"	(254)	7.00"	(178)	11.07"	(281)	8.00"	(204)	13.07"	(332)
12"	(305)	8.00"	(203)	13.07"	(332)	9.00"	(229)	15.07"	(383)
14"	(356)	N/A		N/A		10.00"	(254)	17.07"	(434)
16"	(406)	N/A		N/A		11.00"	(279)	19.07"	(484)

Dimensions in inches (mm).

# FCS/FCSSW COMPONENTS 6" – 36" DIAMETERS

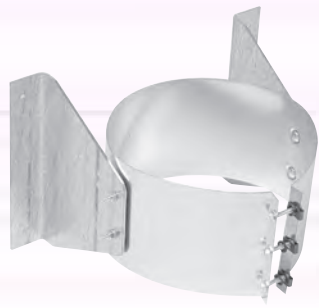
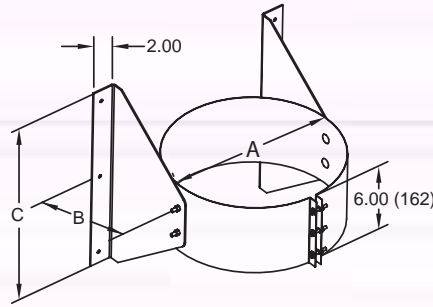
## WALL SUPPORT (WS)

### 6" – 24" Diameters

Used to secure the vent to interior and exterior walls, maintaining clearance and providing alignment. Do not exceed 30 ft. distance between supports on interior walls. Do not exceed 8 ft. between supports on exterior walls.

PIPE I.D.	FCSSW						FCS					
	A		B		C		A		B		C	
6"	6.00"	(152)	5.00"	(127)	8.00"	(203)	8.00"	(203)	5.00"	(127)	8.00"	(203)
7"	7.00"	(178)	5.50"	(140)	9.00"	(229)	9.00"	(229)	5.50"	(178)	9.00"	(229)
8"	8.00"	(203)	6.00"	(152)	10.00"	(254)	10.00"	(254)	6.00"	(152)	10.00"	(254)
9"	9.00"	(229)	6.50"	(165)	11.00"	(279)	11.00"	(279)	6.50"	(165)	11.00"	(279)
10"	10.00"	(254)	7.00"	(178)	12.00"	(305)	12.00"	(305)	7.00"	(178)	12.00"	(305)
12"	12.00"	(305)	8.00"	(203)	14.00"	(356)	14.00"	(356)	8.00"	(203)	14.00"	(356)
14"	14.00"	(356)	13.00"	(330)	16.00"	(406)	16.00"	(406)	13.00"	(330)	16.00"	(406)
16"	16.00"	(406)	14.00"	(356)	18.00"	(457)	18.00"	(457)	14.00"	(356)	18.00"	(457)
18"	18.00"	(457)	15.00"	(381)	20.00"	(508)	20.00"	(508)	15.00"	(381)	20.00"	(508)
20"	20.00"	(508)	16.00"	(406)	22.00"	(559)	22.00"	(559)	16.00"	(406)	22.00"	(559)
22"	22.00"	(559)	17.00"	(432)	24.00"	(610)	24.00"	(610)	17.00"	(432)	24.00"	(610)
24"	24.00"	(610)	18.00"	(457)	26.00"	(660)	26.00"	(660)	18.00"	(457)	26.00"	(660)

Dimensions in inches (mm).



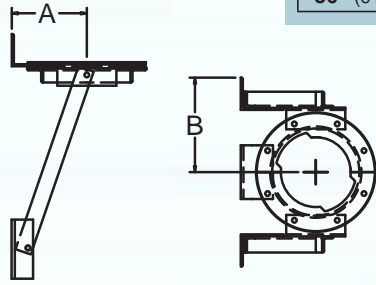
## WALL SUPPORT (WS)

### 26" – 36" Diameters

Used to provide vertical support. (Zinc Plated)

- NOTES:**
1. Does not allow for thermal expansion.
  2. Do not exceed 40' between supports on interior walls.
  3. Do not exceed 10' between supports on exterior walls.

PIPE I.D.	FCSSW / FCS	
	A	B
26" (660)	18.62" (473)	18.00" (457)
28" (711)	19.62" (498)	19.00" (483)
30" (762)	20.62" (524)	20.00" (508)
32" (813)	21.62" (549)	21.00" (533)
34" (864)	23.12" (587)	22.50" (572)
36" (914)	24.12" (613)	23.50" (597)





# FCS/FCSSW COMPONENTS 6" – 36" DIAMETERS

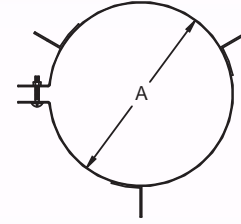
## GUY RING (GR)

6" – 24" Diameters

A = Flue Diameter for FCSSW

A = Flue Diameter + 2" for FCS

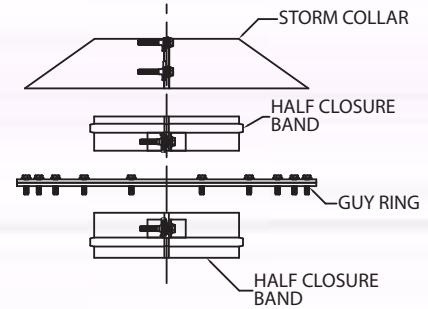
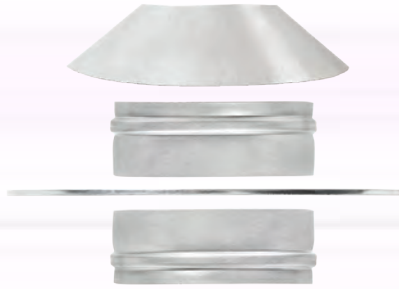
**NOTE:** Guy Ring clamps around outside of pipe.



## GUY RING (GR)

26" – 36" Diameters

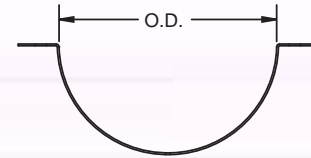
Guy Ring clamps around flue flange band.



## HALF ANGLE RING (HAR)

6" – 24" Diameters

Maximum distance between supports or elbows = 7' 0"



## HALF ANGLE RING (HAR)

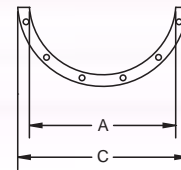
26" – 36" Diameters

Used to support horizontal runs. (Zinc Plated)

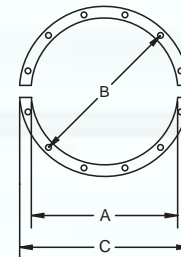
**NOTE:** Maximum distance between supports or elbows = 10' 6"



HALF ANGLE RING



FULL ANGLE RING



## FULL ANGLE RING (FAR)

26" – 36" Diameters

Used to provides lateral support for vertical runs. Allows pipe movement for thermal expansion. (Zinc Plated)



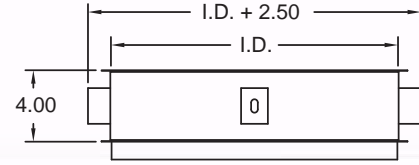
PRODUCT		DIMENSIONS			
PIPE I.D.		Inside	Hole Centerline	Outside	Hole Qty.
FCSSW	FCS	A	B	C	D
26" (660)	-	26.25" (667)	28.50" (724)	30.25" (769)	24
28" (711)	26" (660)	28.25" (718)	30.50" (775)	32.25" (820)	24
30" (762)	28" (712)	30.25" (768)	32.50" (826)	34.25" (870)	28
32" (813)	30" (762)	32.25" (819)	34.50" (876)	36.25" (921)	28
34" (864)	32" (813)	34.25" (870)	36.50" (927)	38.25" (972)	32
36" (914)	34" (864)	36.25" (921)	38.50" (978)	40.25" (1022)	32
-	36" (914)	38.25" (972)	40.50" (1029)	42.25" (1073)	36

# FCS/FCSSW COMPONENTS 6" – 36" DIAMETERS

## LIFTING RING (LR)

Used to support and lower vent assembly into existing chimney.

**NOTE:** Available in single wall only.

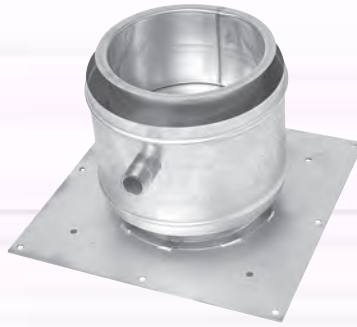


## STACK SUPPORT ASSEMBLY (SSA)

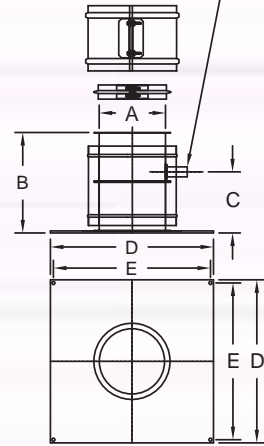
Used to supports vertical stack at floor level. Includes moisture drain.

Maximum Supported Height:

- 6" – 12" FCSSW = 100'
- 14" – 24" FCSSW = 75'
- 26" – 36" FCSSW = 100'
- 6" – 12" FCS = 50'
- 14" – 24" FCS = 30'
- 26" – 36" FCS = 100'



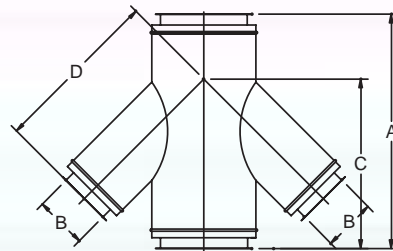
.63" DIA. TUBING 6"-24" DIA.  
1" NPT NIPPLE 26"-36" DIA.



FCSSW / FCS
A = PIPE I.D.
B = 9" (229)
C = 5.5" (140)
D = A+7" (178)
E = A+6" (152)

## CORR/GUARD® 45MT & DL TABLE IN INCHES 6" – 36" Diameters

IAPT.D.														
36FCS	"A"	36	34	32	30	28	26	24	22	20	18	16	14	12
	"B"	63.74	60.91	58.08	55.26	52.43	49.60	46.77	43.94	41.11	38.28	37.46	36.63	34.80
	"C"	36	34	32	30	28	26	24	22	20	18	16	14	12
	"D"	50.87	49.87	48.87	47.87	46.87	45.87	44.87	43.87	42.87	41.87	40.87	39.87	38.87
34FCS	"A"	34	32	30	28	26	24	22	20	18	16	14	12	10
	"B"	60.91	58.08	55.26	52.43	49.60	46.77	43.94	41.11	38.28	36.46	35.63	33.80	31.97
	"C"	34	32	30	28	26	24	22	20	18	16	14	12	10
	"D"	48.46	47.46	46.46	45.46	44.46	43.46	42.46	41.46	40.46	39.46	38.46	37.46	36.46
32FCS	"A"	32	30	28	26	24	22	20	18	16	14	12	10	8
	"B"	58.08	55.26	52.43	49.60	46.77	43.94	41.11	38.28	35.46	34.63	32.80	30.97	29.14
	"C"	32	30	28	26	24	22	20	18	16	14	12	10	8
	"D"	46.04	45.04	44.04	43.04	42.04	41.04	40.04	39.04	38.04	37.04	36.04	35.04	34.04
30FCS	"A"	30	28	26	24	22	20	18	16	14	12	10	8	6
	"B"	55.26	52.43	49.60	46.77	43.94	41.11	38.28	35.46	32.63	31.80	29.97	28.14	27.31
	"C"	30	28	26	24	22	20	18	16	14	12	10	8	6
	"D"	43.63	42.63	41.63	40.63	39.63	38.63	37.63	36.63	35.63	34.63	33.63	32.63	31.63
28FCS	"A"	28	26	24	22	20	18	16	14	12	10	8	6	
	"B"	52.43	49.60	46.77	43.94	41.11	38.28	35.46	32.63	30.80	28.97	27.14	26.31	
	"C"	28	26	24	22	20	18	16	14	12	10	8	6	
	"D"	41.21	39.80	38.39	36.97	35.56	34.14	32.73	31.31	29.90	28.49	27.07	25.66	
26FCS	"A"	26	24	22	20	18	16	14	12	10	8	6		
	"B"	49.60	46.77	43.94	41.11	38.28	35.46	32.63	29.80	27.97	26.14	25.31		
	"C"	26	24	22	20	18	16	14	12	10	8	6		
	"D"	38.80	37.39	35.97	34.56	33.14	31.73	30.31	28.90	27.49	26.08	25.07		
24FCS	"A"	24	22	20	18	16	14	12	10	8	6			
	"B"	46.77	43.94	41.11	38.28	35.46	32.63	29.80	26.97	25.14	24.31			
	"C"	24	22	20	18	16	14	12	10	8	6			
	"D"	36.39	34.97	33.56	32.14	30.73	29.31	27.90	26.49	25.07	23.66			
22FCS	"A"	22	20	18	16	14	12	10	8	6				
	"B"	43.94	41.11	38.28	35.46	32.63	29.80	26.97	24.14	23.31				
	"C"	22	20	18	16	14	12	10	8	6				
	"D"	33.97	32.56	31.14	29.73	28.31	26.90	25.49	24.07	22.66				
20FCS	"A"	20	18	16	14	12	10	8	6					
	"B"	41.11	38.28	35.46	32.63	29.80	26.97	24.14	22.31					
	"C"	20	18	16	14	12	10	8	6					
	"D"	31.56	30.14	28.73	27.31	25.90	24.49	23.07	21.66					
18FCS	"A"	18	16	14	12	10	8	6						
	"B"	38.28	35.46	32.63	29.80	26.97	24.14	21.31						
	"C"	18	16	14	12	10	8	6						
	"D"	29.14	27.73	26.31	24.90	23.49	22.07	20.66						
16FCS	"A"	16	14	12	10	9	8	6						
	"B"	35.46	32.63	29.80	26.97	25.56	24.14	21.31						
	"C"	16	14	12	10	9	8	6						
	"D"	26.73	25.31	23.90	22.49	21.07	20.36							
14FCS	"A"	14	12	10	9	8	7	6						
	"B"	32.63	29.80	26.97	25.56	24.14	22.73	21.31						
	"C"	14	12	10	9	8	7	6						
	"D"	24.31	22.90	21.49	20.07	19.36	18.66							
12FCS	"A"	12	10	9	8	7	6							
	"B"	29.80	26.97	25.56	24.14	22.73	21.31							
	"C"	12	10	9	8	7	6							
	"D"	21.90	20.49	19.78	19.07	18.36	17.66							
10FCS	"A"	10	9	8	7	6								
	"B"	26.97	25.56	24.14	22.73	21.31								
	"C"	10	9	8	7	6								
	"D"	19.49	18.78	18.07	17.36	16.66								
9FCS	"A"	9	8	7	6									
	"B"	25.56	24.14	22.73	21.31									
	"C"	9	8	7	6									
	"D"	18.28	17.57	16.86	16.16									
8FCS	"A"	8	7	6										
	"B"	24.14	22.73	21.31										
	"C"	8	7	6										
	"D"	17.07	16.36	15.66										
7FCS	"A"	7	6											
	"B"	22.73	21.31											
	"C"	7	6											
	"D"	15.86	15.16											
6FCS	"A"	6												
	"B"	21.31												
	"C"	6												
	"D"	14.66												



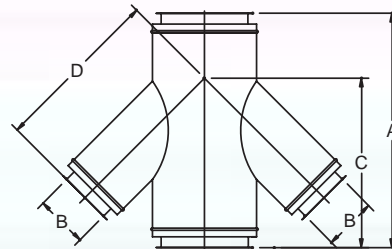
**FCSSW & FCS  
45MT & DL TABLE IN INCHES**

# FCS/FCSSW COMPONENTS 6" – 36" DIAMETERS

## CORR/GUARD® 45MT & DL TABLE IN METRIC 153mm – 915mm Diameters

TAP I.D.

	36	34	32	30	28	26	24	22	20	18	16	14	12
36FCS	"A" 1619 "B" 914 "C" 1292 "D" 1292	1547 864 1256 1267	1475 813 1220 1241	1403 762 1184 1216	1332 711 1148 1190	1260 660 1112 1165	1188 610 1077 1140	1116 559 1041 1114	1044 508 1005 1089	972 457 969 1063	951 406 933 1038	930 356 897 1013	884 305 861 987
34FCS	34 "A" 1547 "B" 864 "C" 1231 "D" 1231	32 1475 813 1195 1205	30 1403 762 1159 1180	28 1332 711 1123 1155	26 1260 660 1087 1129	24 1188 610 1051 1104	22 1116 559 1015 1078	20 1044 508 979 1053	18 972 457 943 1028	16 926 406 907 977	14 905 356 872 951	12 858 305 836 951	10 812 254 800 926
32FCS	30 "A" 1475 "B" 813 "C" 1169 "D" 1169	28 1403 762 1134 1144	26 1332 660 1098 1119	24 1260 610 1062 1093	22 1188 559 1026 1068	20 1116 508 990 1042	18 1044 457 954 1017	16 972 406 918 992	14 901 356 882 966	12 880 305 846 941	10 833 254 810 915	8 787 203 774 890	6 740 152 756 865
30FCS	28 "A" 1403 "B" 762 "C" 1108 "D" 1108	26 1332 711 1072 1083	24 1260 660 1036 1057	22 1188 559 1000 1032	20 1116 508 964 1007	18 1044 457 929 981	16 972 406 893 956	14 901 356 857 930	12 829 305 821 905	10 782 254 785 880	8 736 203 749 854	6 689 152 731 829	4 668 152 713 803
28FCS	26 "A" 1332 "B" 711 "C" 1047 "D" 1047	24 1260 660 1011 1021	22 1188 610 975 996	20 1116 559 939 971	18 1044 457 903 945	16 972 406 867 920	14 901 356 831 894	12 829 305 795 869	10 782 254 759 844	8 736 203 724 818	6 689 152 706 793	4 668 152 688 767	2 643 152 662 767
26FCS	24 "A" 1260 "B" 660 "C" 985 "D" 985	22 1188 610 950 960	20 1116 559 914 935	18 1044 457 878 909	16 972 406 842 884	14 901 356 806 858	12 829 305 770 833	10 757 254 734 808	8 710 203 698 782	6 664 152 680 757	4 618 152 662 731	2 582 152 662 731	0 541 152 660 731
24FCS	22 "A" 1188 "B" 610 "C" 924 "D" 924	20 1116 559 888 899	18 1044 457 852 873	16 972 406 816 848	14 901 356 780 823	12 829 305 745 797	10 757 254 709 772	8 685 203 673 746	6 639 152 655 721	4 618 152 637 696	2 582 152 637 696	0 541 152 637 696	0 500 152 637 696
22FCS	20 "A" 1116 "B" 559 "C" 863 "D" 863	18 1044 457 827 837	16 972 406 791 812	14 901 356 755 787	12 829 305 719 761	10 757 254 683 736	8 685 203 647 710	6 639 152 629 685	4 618 152 611 660	2 582 152 611 660	0 541 152 611 660	0 500 152 611 660	0 469 152 611 660
20FCS	18 "A" 1044 "B" 508 "C" 802 "D" 802	16 972 457 766 776	14 901 356 730 751	12 829 356 694 725	10 757 254 658 700	8 685 254 622 675	6 639 203 604 649	4 618 152 586 624	2 582 152 586 624	0 541 152 586 624	0 500 152 586 624	0 469 152 586 624	0 428 152 586 624
18FCS	16 "A" 972 "B" 457 "C" 740 "D" 740	14 901 406 704 715	12 829 356 668 689	10 757 254 632 664	8 685 254 597 639	6 639 203 579 613	4 618 152 561 588	2 582 152 561 588	0 541 152 561 588	0 500 152 561 588	0 469 152 561 588	0 428 152 561 588	0 387 152 561 588
16FCS	14 "A" 901 "B" 406 "C" 679 "D" 679	12 829 356 643 653	10 757 254 607 628	8 685 254 571 603	6 639 203 553 590	4 618 152 535 577	2 582 152 517 552	0 541 152 517 552	0 500 152 517 552	0 469 152 517 552	0 428 152 517 552	0 387 152 517 552	0 346 152 517 552
14FCS	12 "A" 829 "B" 356 "C" 618 "D" 618	10 757 305 582 592	8 685 254 546 567	6 639 203 528 554	4 618 152 510 541	2 582 152 492 529	0 541 152 474 516	0 500 152 474 516	0 469 152 474 516	0 428 152 474 516	0 387 152 474 516	0 346 152 474 516	0 305 152 474 516
12FCS	10 "A" 757 "B" 305 "C" 556 "D" 556	8 685 254 520 531	6 639 203 502 518	4 618 152 484 505	2 582 152 466 493	0 541 152 448 480	0 500 152 448 480	0 469 152 448 480	0 428 152 448 480	0 387 152 448 480	0 346 152 448 480	0 305 152 448 480	0 264 152 448 480
10FCS	8 "A" 685 "B" 254 "C" 495 "D" 495	6 639 229 477 482	4 618 178 459 470	2 582 152 441 457	0 541 152 423 444	0 500 152 423 444	0 469 152 423 444	0 428 152 423 444	0 387 152 423 444	0 346 152 423 444	0 305 152 423 444	0 264 152 423 444	0 223 152 423 444
9FCS	7 "A" 649 "B" 229 "C" 464 "D" 464	6 613 203 446 452	4 582 178 428 439	2 541 152 410 426	0 500 152 410 426	0 469 152 410 426	0 428 152 410 426	0 387 152 410 426	0 346 152 410 426	0 305 152 410 426	0 264 152 410 426	0 223 152 410 426	0 182 152 410 426
8FCS	6 "A" 613 "B" 203 "C" 434 "D" 434	5 577 178 416 421	3 541 152 398 408	1 500 152 398 408	0 469 152 398 408	0 428 152 398 408	0 387 152 398 408	0 346 152 398 408	0 305 152 398 408	0 264 152 398 408	0 223 152 398 408	0 182 152 398 408	0 141 152 398 408
7FCS	5 "A" 577 "B" 178 "C" 403 "D" 403	4 541 152 385 390	2 500 152 385 390	0 469 152 385 390	0 428 152 385 390	0 387 152 385 390	0 346 152 385 390	0 305 152 385 390	0 264 152 385 390	0 223 152 385 390	0 182 152 385 390	0 141 152 385 390	0 100 152 385 390
6FCS	4 "A" 541 "B" 152 "C" 372 "D" 372	3 500 152 372 372	1 469 152 372 372	0 428 152 372 372	0 387 152 372 372	0 346 152 372 372	0 305 152 372 372	0 264 152 372 372	0 223 152 372 372	0 182 152 372 372	0 141 152 372 372	0 100 152 372 372	0 59 152 372 372



**FCSSW & FCS  
45MT & DL TABLE IN METRIC**

## JOINT ASSEMBLY

1. Apply continuous bead of sealant ¼" wide at corner of flange and sleeve.
2. Join to next section.
3. Fill the flange vee band with sealant and install around flanges.
4. Gently tap vee band with a soft head mallet while tightening band to assure tight seal.
5. Install casing closure band. (Seal if external to structure to prevent moisture infiltration)



## SEALANT REQUIREMENTS

P077 Sealant

Flue Diameter	Tubes / Joint	Joints / Tube
6"	0.20	5
8"	0.20	5
10"	0.20	5
12"	0.25	4
14"	0.25	4
16"	0.25	4
18"	0.33	3
20"	0.33	3
22"	0.33	3
24"	0.50	2
26"	0.50	2
28"	0.50	2
30"	0.67	1-1/2
32"	0.67	1-1/2
34"	0.67	1-1/2
36"	0.67	1-1/2

## WARRANTY

### LIMITED LIFETIME WARRANTY

The Metal-Fab, Inc. 6 thru 36-inch diameter Model FCS "Corr/Guard Double Wall" and FCSSW "Corr/Guard Single-Wall" factory-built gas vent system (the products), when installed in accordance to manufacturer's instructions and when properly and regularly cleaned and maintained, are warranted by Metal-Fab, Inc. under normal use against defects in material or workmanship for as long as the original purchaser owns the vent system.

Refer to Metal-Fab Warranty form L2619 for complete information and claim procedures, exclusions and limitations. The entire warranty is available at: [www.metal-fabcommercial.com](http://www.metal-fabcommercial.com)

**Pressure Rated Chimney & Vents**



**Generator & Fume Exhaust**

**FASTER. SAFER. BETTER.**



**.....THE METAL-FAB WAY**

## G Series Factory-Built Grease Duct Systems





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