

# Victaulic® Flue Gas Nozzle Coupling

## Style 221AA and Style 221FB



Style 221AA  
for Alloy Pipe and FRP Pipe



Style 221FB  
for FRP Pipe

### 1.0 PRODUCT DESCRIPTION

#### Available Sizes

- Style 221AA is available in 3 – 4"/DN80 – DN100
- Style 221FB is available in 4 – 5"/DN100 – DN150

#### Maximum Working Pressure

- 50 psi/345 kPa

#### Application

- This product is designed specifically for use in the flue gas desulfurization industry to join shouldered end spray nozzles to shouldered alloy or Fiberglass Reinforced Plastic (FRP) pipe.
- Provides for infinitely variable nozzle positioning to minimize wall impingement on the absorber.

#### Pipe Materials

- Alloy
- Fiberglass Reinforced Plastic (FRP)

#### NOTE

- Supplied with EndSeal gaskets

### 2.0 CERTIFICATION/LISTINGS

Not applicable. Contact Victaulic for details.

**ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.**

System No.		Location	
Submitted By		Date	

Spec Section		Paragraph	
Approved		Date	

### 3.0 SPECIFICATIONS – MATERIAL

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#### Duplex Alloy Style 221AA coupling:

Various alloys are available from Victaulic to meet your project specifications.

#### Housing/Ring: (specify choice)

Duplex alloy per ASTM A 890 Grade A4 Type 22 Cr-5Ni-Mo-N, UNS J92205 ACI CD3MN (2205)

Nickel Alloy per ASTM A 494 Grade CW12MW (C-276)

Nickel Alloy ASTM A 743 Grade CN3MN (AL-6XN)

Nickel Alloy ASTM A 240 Grade 317 LMN W/4.0Mo, 0.1-0.2N

Other Alloys per agreement between Victaulic and specifier

#### FRP Style 221FB Coupling

##### Housing:

Fiberglass Reinforced Plastic (FRP)

##### Gasket: (specify choice)<sup>1</sup>

###### Grade “E” EPDM

EPDM (Green stripe color code). Temperature range –30°F to +230°F/–34°C to +110°C. May be specified for Limestone Slurry within the Wet FGD Absorber used in flue gas desulfurization services. Also applicable for cold and hot water service within the specified temperature range. UL Classified in accordance with ANSI/NSF 61 for cold +73°F/+23°C and hot +180°F/+82°C potable water service and ANSI/NSF 372. NOT COMPATIBLE FOR PETROLEUM SERVICES.

###### Others

For alternate gasket selection, refer to Victaulic [publication 05.01](#).

<sup>1</sup> Services listed are General Service Guidelines only. It should be noted that there are services for which these gaskets are not compatible. Reference should always be made to the latest [Victaulic Gasket Selection Guide](#) for specific gasket service guidelines and for a listing of services which are not compatible.

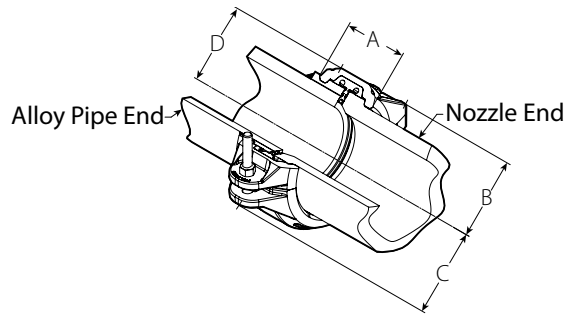
##### Bolts/Nuts: (specify choice)

Standard: Alloy hex head bolt/nut shall be equivalent to the housing/ring material above. For 317 LMN material, Grade C-276 bolts/nuts shall be supplied.

Optional: Per agreement between Victaulic and specifier

## 4.0 DIMENSIONS

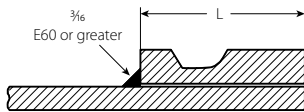
### Style 221AA Alloy or FRP



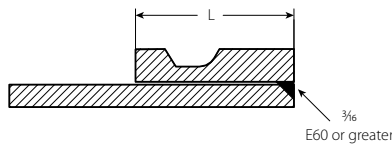
Style	Size inches mm	Dimensions				Weight
		Coupling Width A inches mm	Center to Hinge B <sup>2</sup> inches mm	Center to Bolt Pad C <sup>2</sup> inches mm	Center to Crown D <sup>2</sup> inches mm	Approximate (Each) lb kg
221AA (Alloy)	3	2.88	3.92	3.92	2.72	6.1
	80	73.2	99.6	99.6	69.1	2.8
	4	3.02	4.42	4.42	3.28	8.1
	100	76.7	112.3	112.3	83.3	3.7

<sup>2</sup> Represents radius

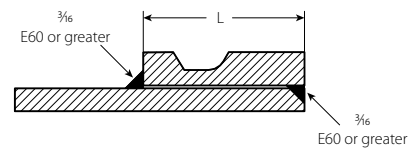
### Weld Ring options



Weld detail on back of ring



Weld detail on front of ring

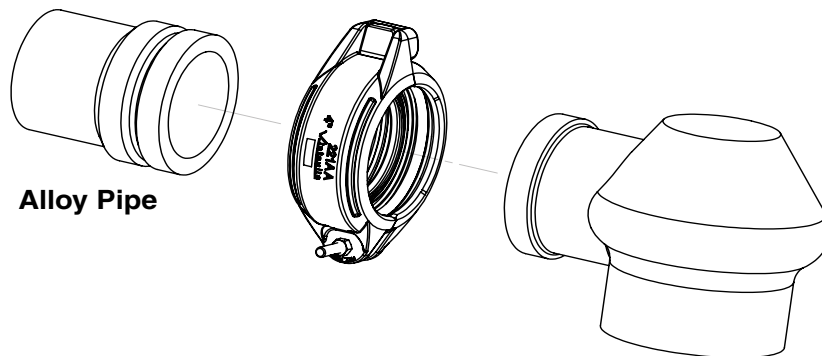


Weld detail on front and back of ring.

Size inches mm	Dimensions
	L inches mm
3	1.61
80	40.9
4	1.68
100	42.7

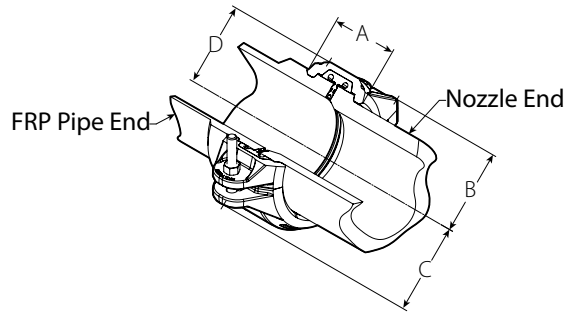
### NOTES

- Specifier to select desired weld detail from those above.
- Surface to remain smooth in area indicated. No weld metal projection allowed. Grind smooth if necessary.
- Rings supplied by Victaulic. For info please contact Victaulic.



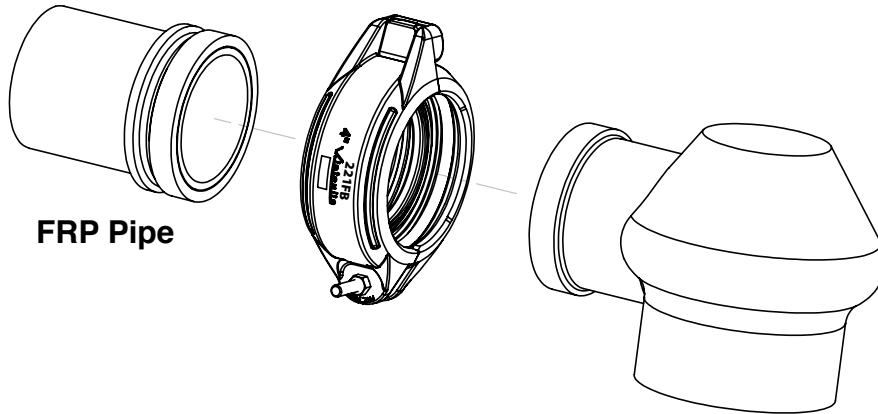
## 4.1 DIMENSIONS

### Style 221FB FRP



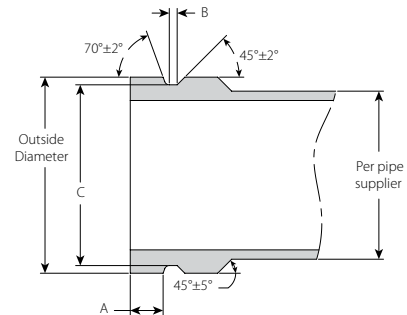
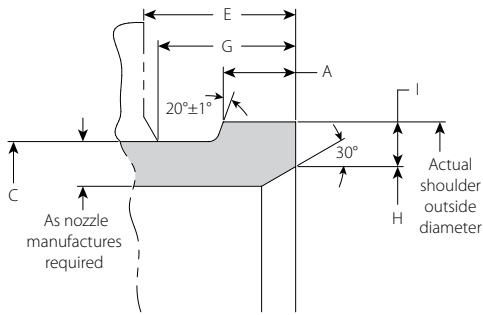
Style	Size inches mm	Dimensions				Weight
		Coupling Width A inches mm	Center to Hinge B <sup>2</sup> inches mm	Center to Bolt Pad C <sup>2</sup> inches mm	Center to Crown D <sup>2</sup> inches mm	Approximate (Each) lb kg
221FB (FRP)	4	3.11	4.88	4.62	3.46	3.2
	100	79.0	124.0	117.0	88.0	1.5
	5	3.02	5.44	5.22	4.02	3.5
	150	76.6	138.1	132.5	102.2	1.6

<sup>2</sup> Represents radius



## 4.2 DIMENSIONS

### Style 221AA and Style 221FB FRP Nozzle and Pipe End



Nozzle End							
Size	Actual Shoulder Outside Diameter	A	C	E	G	H	I
inches	inches	inches	inches	inches	inches	inches	inches
mm	mm	mm	mm	mm	mm	mm	mm
3	4.25	0.81	3.81	1.70	1.54	3.00	0.625
DN80	108.0	20.6	96.8	43.2	39.1	76.2	15.9
4	5.25	0.88	4.81	1.76	1.60	4.00	0.625
DN100	133.4	22.4	122.2	44.7	40.6	101.6	15.9
5	6.37	0.88	5.93	1.82	1.66	5.00	0.685
DN150	161.8	22.4	150.6	46.2	42.2	127.0	17.4

Pipe End				
Size	Outside Diameter	A	B	C
inches	inches	inches	inches	inches
mm	mm	mm	mm	mm
3	4.25	0.81	0.211	3.81
DN80	108.0	20.6	5.36	96.8
4	5.25	0.88	0.211	4.81
DN100	133.4	22.4	5.36	122.2
5	6.37	0.88	0.211	5.93
DN150	161.8	22.4	5.36	150.6

**NOTE**

- For FRP details please contact Victaulic.

## 5.0 PERFORMANCE

Not applicable. Contact Victaulic for details.

## 6.0 NOTIFICATIONS

Not applicable. Contact Victaulic for details.

## 7.0 REFERENCE MATERIALS

- [05.01: Seal Selection Guide](#)
- [I-220/221AA Installation Instructions](#)

**User Responsibility for Product Selection and Suitability**

Each user bears final responsibility for making a determination as to the suitability of Victaulic products for a particular end-use application, in accordance with industry standards and project specifications, and the applicable building codes and related regulations as well as Victaulic performance, maintenance, safety, and warning instructions. Nothing in this or any other document, nor any verbal recommendation, advice, or opinion from any Victaulic employee, shall be deemed to alter, vary, supersede, or waive any provision of Victaulic Company's standard conditions of sale, installation guide, or this disclaimer.

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**Note**

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

**Installation**

Reference should always be made to the [I-220/221AA Installation Instructions](#) for the Style 221AA coupling. Installation instructions are included with each shipment of Victaulic products for complete installation and assembly data, and are available in PDF format on our website at [www.victaulic.com](http://www.victaulic.com).

**Warranty**

Refer to the Warranty section of the current Price List or contact Victaulic for details.

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