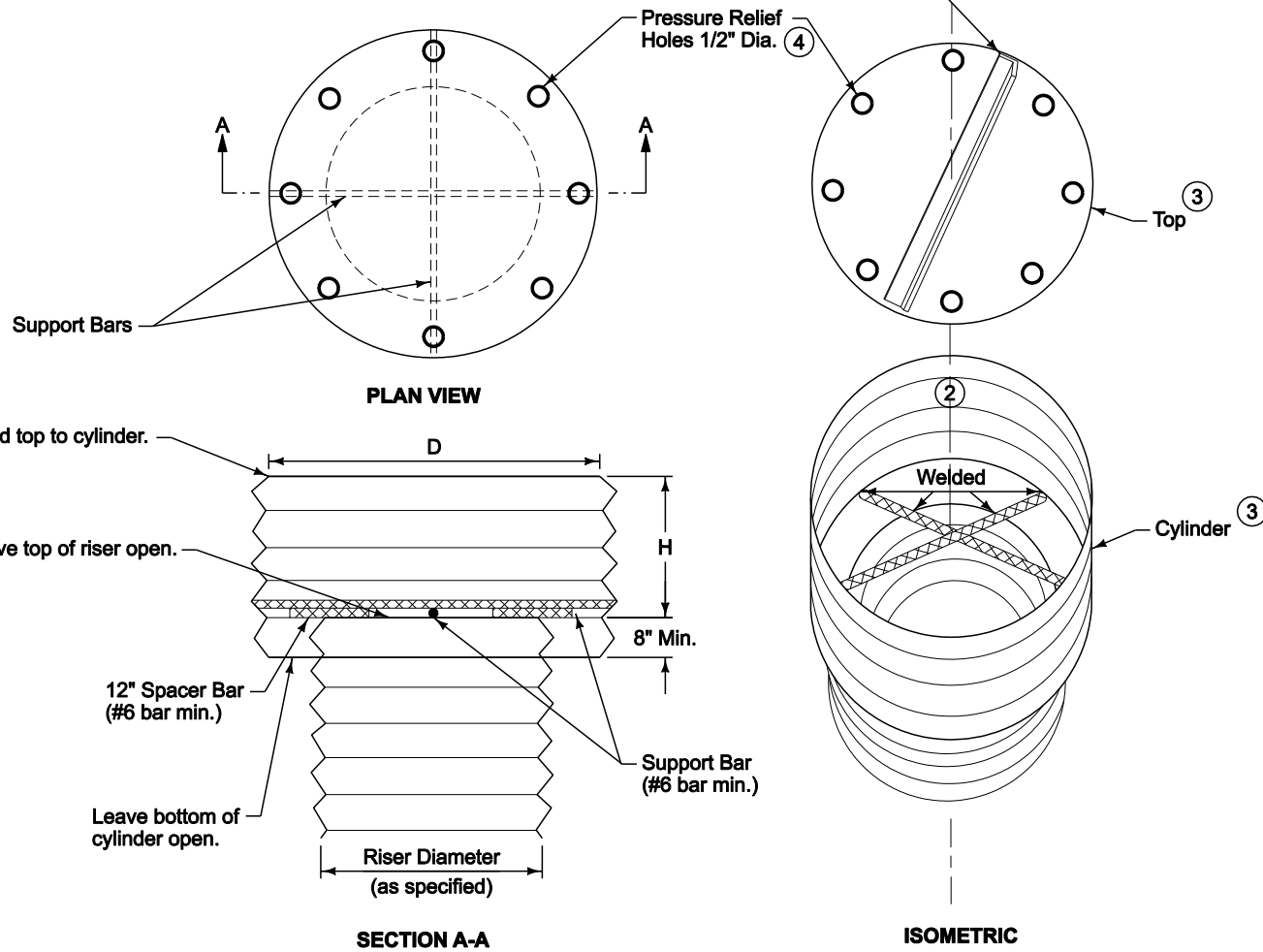



Orient top stiffener (if required) perpendicular to corrugations and weld to top. ①



Alternate anti-vortex device configurations may be utilized upon approval of the Engineer.


- ① See sheet 2 for dimensions of cylinder support bars, top plate, and top stiffener.
- ② Firmly attach the anti-vortex cylinder to the top of the riser by welding or other means.
- ③ Corrugated metal or 1/8 inch steel plate cylinder and top.
- ④ Pressure relief holes may be omitted if ends of corrugations are left fully open when the top is attached.

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RISER Diameter (in.)	CYLINDER			MINIMUM TOP		
	Diameter (in.)	Thickness (gage)	Height (H) (in.)	Minimum Size Support Bar	Thickness	Stiffener
12	18	16	6	#6 rebar or 1 1/2" X 3/16" angle	16 ga F & C	---
15	21	16	7	#6 rebar or 1 1/2" X 3/16" angle	16 ga F & C	---
18	27	16	8	#6 rebar or 1 1/2" X 3/16" angle	16 ga F & C	---
21	30	16	11	#6 rebar or 1 1/2" X 3/16" angle	16 ga (C), 14 ga (F)	---
24	36	16	13	#6 rebar or 1 1/2" X 3/16" angle	16 ga (C), 14 ga (F)	---
27	42	16	15	#6 rebar or 1 1/2" X 3/16" angle	16 ga (C), 14 ga (F)	---
36	54	16	17	#8 rebar	14 ga (C), 12 ga (F)	---
42	60	16	19	#8 rebar	14 ga (C), 12 ga (F)	---
48	72	16	21	1 1/4" pipe or 1 1/4" X 1 1/4" X 1/4" angle	14 ga (C), 10 ga (F)	---
54	78	16	25	1 1/4" pipe or 1 1/4" X 1 1/4" X 1/4" angle	14 ga (C), 10 ga (F)	---
60	90	14	29	1 1/2" pipe or 1 1/2" X 1 1/2" X 1/4" angle	12 ga (C), 8 ga (F)	---
66	96	14	33	2" pipe or 2" X 2" X 1/4" angle	12 ga (C), 8 ga (F)	2" X 2" X 1/4" angle
72	102	14	36	2" pipe or 2" X 2" X 1/4" angle	12 ga (C), 8 ga (F)	2 1/2" X 2 1/2" X 1/4" angle
78	114	14	39	2 1/2" pipe or 2" X 2" X 1/4" angle	12 ga (C), 8 ga (F)	2 1/2" X 2 1/2" X 1/4" angle
84	120	12	42	2 1/2" pipe or 2" X 2" X 1/4" angle	12 ga (C), 8 ga (F)	2 1/2" X 2 1/2" X 5/16" angle

**Notes:**

- The criterion for sizing the cylinder is that the area between the inside of the cylinder and the outside of the riser is equal to or greater than the area inside the riser. Therefore, the above table is invalid for use with concrete pipe risers.
- C - Corrugated F - Flat.

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