

Design Assumptions for
Nebraska Base Drawing NE100-30-003
Conical Trash Rack

Revised: 12/02 Replaces: 5001-7

Conical Trash Rack

An anti-vortex device is required on all risers, the conical trash rack with anti-vortex device meets this requirement.

For riser and barrel combinations not listed on the base sheet, consult with an engineer. In custom applications of the base drawing the c-c spacing at the extremity of the "A" bar must be a minimum of 2" less than the inside diameter of the barrel.

Instructions for
NE Base Drawing NE100-30-003
Conical Trash Rack

Fill in the following data fields to automatically fill in the necessary data fields on the drawing.

Title block

Title line(s)

Subtitle line

County, State

Sheet number of

Who / When

Designed

Drawn

Checked

Drawing Data

Diameter of Riser =

Diameter of Barrel =

CONICAL TRASH RACK TABLE OF DIMENSIONS AND QUANTITIES

Ⓐ BARS 5/8" DIA.							ANTI-VORTEX PLATE - 12 GA.					Ⓑ BARS 5/8" DIA.			Ⓒ BARS 5/8" DIA.			Ⓓ BARS 5/8" DIA.			Ⓔ BARS 1/2" DIA.			TOP PLATE 1/4" THICK		
H (INCHES)	R (INCHES)	X (INCHES)	Y (INCHES)	S (INCHES)	O (INCHES)	TOTAL LENGTH	NO. REQ'D.	N (INCHES)	L (FT.IN.)	P (INCHES)	F (INCHES)	V (INCHES)	NO. REQ'D.	r (INCHES)	LENGTH (INCHES)	DIA. (INCHES)										
12" DIAMETER C.M. PIPE RISER W/12" DIA. C.M. PIPE BARREL																										
9	11 1/8	6	11 1/8	1	15 5/8	3'-7 5/8"	10	9 1/8	2'-6"	18	5	5	2	11 5/16	36 1/2	1	6	39 3/4	1	11 5/16	73	1	7 3/16	53	4	
15" DIAMETER C.M. PIPE RISER W/12" DIA. C.M. PIPE BARREL																										
9	12 5/8	6	12 5/8	1	17 3/4	3'-9 3/4"	10	10 1/4	2'-9"	18	6	6	2	12 13/16	41 1/4	1	7 1/2	49	1	12 13/16	82 1/2	1	8 11/16	63	4	
18" DIA. DIAMETER C.M. PIPE RISER W/15" DIA. C.M. PIPE BARREL																										
9	14 1/8	6	14 1/8	1	20	4'-0"	10	11 7/16	3'-0"	21	8	8	2	14 5/16	46	1	9	58 1/2	1	14 5/16	92	1	10 1/4	73	4	
21" DIAMETER C.M. PIPE RISER W/18" DIA. C.M. PIPE BARREL																										
12	9 1/4	9	18 1/2	2	20 5/8	4'-6 5/8"	12	12 3/8	4'-0"	18	12	6	2	18 13/16	60	1	10 1/2	68	1	18 13/16	120	1	11 3/4	82 1/2	4	
24" DIAMETER C.M. PIPE RISER W/18" DIA. OR 21" DIA. C.M. PIPE BARREL																										
15	11 3/8	12	22 3/4	2	25 3/8	5'-5 3/8"	12	14 13/16	4'-6"	24	18	9	2	23 5/16	74	1	12	77 1/2	1	23 5/16	148	1	13 1/4	91 1/2	4	
30" DIAMETER C.M. PIPE RISER W/12" AND 15" DIA. C.M. PIPE BARREL																										
12	9 1/2	15	28 1/2	3	30	5'-10"	18	11 11/16	6'-0"	20	21	7	2	29 5/16	93	1	15	96	1	29 5/16	186	1	16 1/4	111	4	
30" DIAMETER C.M. PIPE RISER W/18", 21", 24" DIA. C.M. PIPE BARREL																										
18	9 1/2	15	28 1/2	3	30	6'-4"	14	15 13/16	6'-0"	24	21	7	2	29 5/16	93	1	15	96	1	29 5/16	186	1	16 1/4	111	4	
36" DIAMETER C.M. PIPE RISER W/24" & 30" DIA. C.M. PIPE BARREL																										
21	12 1/2	21	37 5/8	3	39 1/2	7'-10 1/2"	16	17 5/16	7'-6"	30	30	10	2	38 3/8	121 1/2	1	18	115	1	38 3/8	243	1	19 1/4	129	4	

REQUIREMENT TABLE

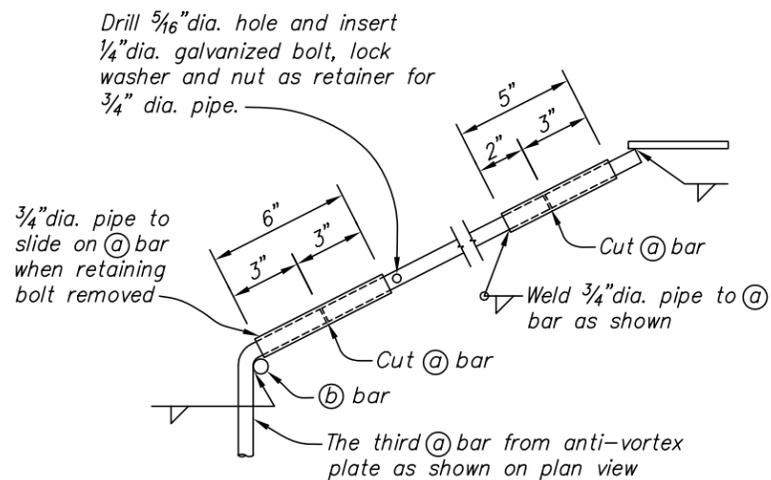
CONICAL TRASH RACK, STEEL, FOR
 ____" DIA. RISER, ____" DIA. BARREL,
 WITH MODIFIED Ⓐ BAR AS PER DETAIL

FABRICATION NOTES:

- WELD 4 Ⓐ BARS TO VORTEX PLATE AND TO TOP PLATE. WELD Ⓒ AND Ⓓ BARS TO 4 Ⓐ BARS. WELD Ⓑ BAR TO Ⓐ BARS AND VORTEX PLATE. WELD REMAINING Ⓐ BARS TO Ⓑ, Ⓒ, AND Ⓓ BARS AND TOP PLATE.
- THE TRASH RACK AND ANTI-VORTEX PLATE MAY BE FABRICATED AS A UNIT, OR TRASH RACK MAY BE FABRICATED IN IDENTICAL HALVES AND ATTACHED TO VORTEX PLATE WITH 1/2" DIA. U BOLTS SPACED APPROX. 12" C-C ALONG THE VERTICAL AND INCLINED SECTIONS OF THE Ⓐ BARS NEXT TO THE PLATE.
- ALL BARS ARE SMOOTH ROUND STEEL BARS.
- ALL WELDS AND HEAT AFFECTED AREAS, ON GALVANIZED METAL, SHALL BE TREATED IN ACCORDANCE WITH CONSTRUCTION SPECIFICATIONS.

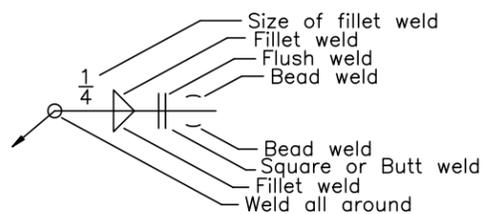
INSTALLATION NOTES:

- PAINT ACCORDING TO PAINT SYSTEM "C" OF PAINT SPECIFICATIONS. PAINT IS NOT REQUIRED IF MATERIAL IS GALVANIZED.

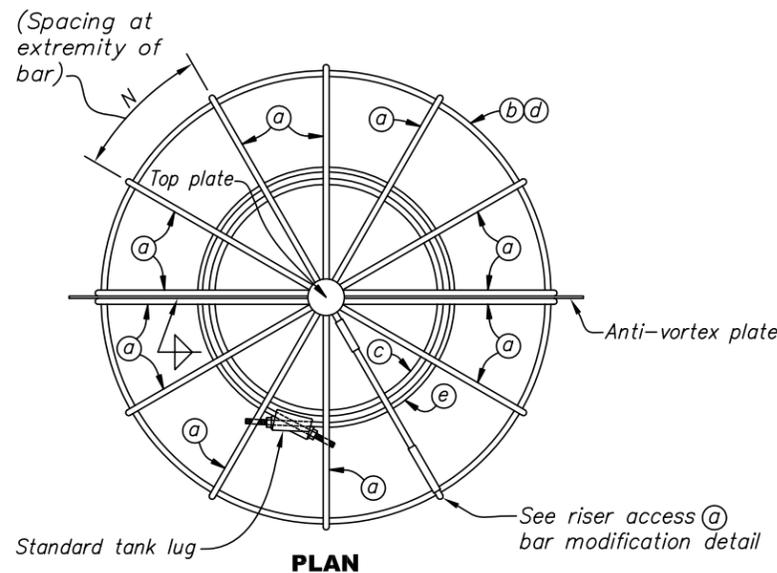


**DETAIL FOR RISER ACCESS
 Ⓐ BAR MODIFICATION**

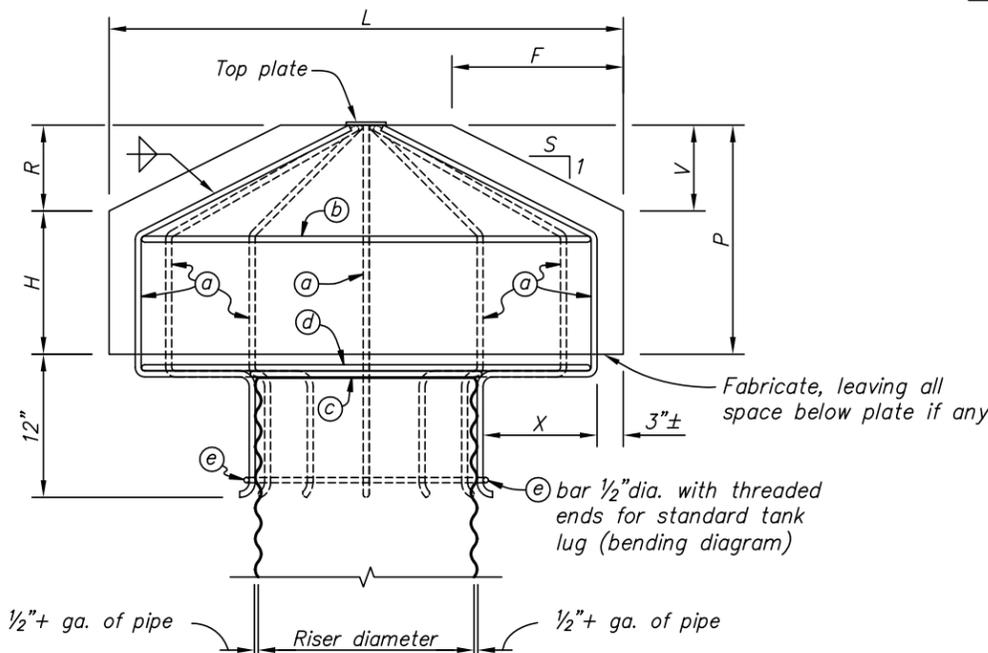
WELD SYMBOLS



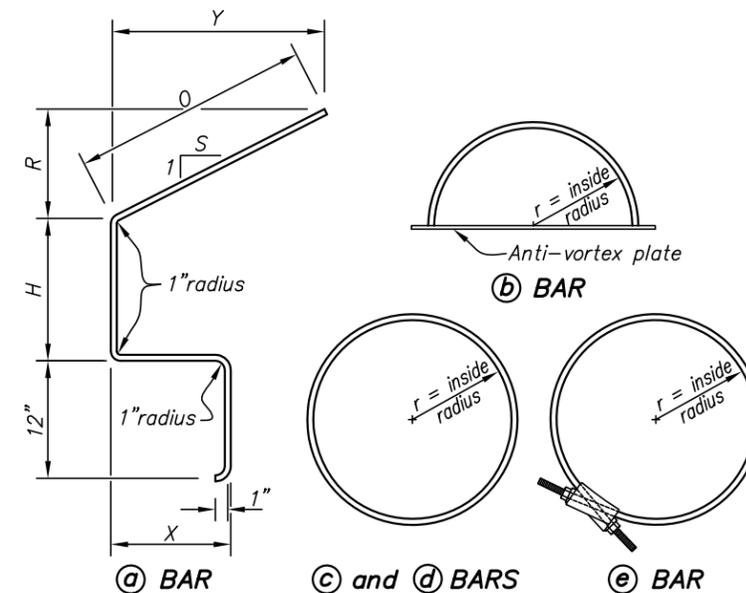
Note:
 Weld symbol above line indicates weld is on opposite side of joint to which arrow points.
 Weld symbol below line indicates weld is on side of joint to which arrow points.



PLAN



**CONICAL TRASH RACK
 DETAIL H**



BENDING DIAGRAMS

CONICAL TRASH RACK WEIGHTS

RISER DIA. (INCHES)	BARREL DIA. (INCHES)	WEIGHT (POUNDS) (STEEL)
12	12	74
15	12	80
18	15	89
21	18	114
24	18-21	142
30	12-15	198
30	18-21-24	182
36	24-30	267

Date _____
 Designed _____
 Drawn _____
 Checked _____
 Approved _____

