FREESTANDING ALUMINUM TOWER
MODEL #HD 4-90

TOTAL WEIGHT: 296 LBS.

WIND LOADING:
4.38 Sq. Ft.

Contact Universal Towers to confirm geographical location of your tower and all wind load implications.

WARRANTY
UNIVERSAL TOWERS ARE WARRANTED AGAINST DEFECTIVE MATERIAL OR WORKMANSHIP AND ARE SUBJECT TO REPAIR OR TO MATERIAL REPLACEMENT ONLY IF FAILURE RESULTS FROM THESE FACTORS WITHIN ONE YEAR FROM PURCHASE BY USER. THIS WARRANTY DOES NOT EXTEND TO ANY OF OUR PRODUCTS WHICH HAVE BEEN SUBJECTED TO MISUSE, NEGLECT, ACCIDENT, IMPROPER INSTALLATION OR APPLICATION, NOR SHALL IT EXTEND TO UNITS WHICH HAVE BEEN REPAIRED OR SUBSTANTIALLY ALTERED OUTSIDE OF OUR FACTORY. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED.

ELEVATION
SCALE: 1/16"=1'=0"

ISOMETRIC
SCALE: N.T.S.

UNIVERSAL TOWERS
48800 GROEBBECK HWY.
CLINTON TOWNSHIP, MI 48036
PH: (586) 463-2560
FAX: (586) 463-2964

ALUMINUM TOWER

HD 4-90
1½" MIN. LENGTH ARGON GAS 'MIG' WELD (TYP.)

6 EQUAL SPACES AT 18" EACH = 7'-6"

TAPER

10'-0"

2'-1"

1½" DIA. ALUMINUM BARS - BENT AS SHOWN - 1½" R. MIN.

1" x 0.065 WALL ALUMINUM TUBE

SWAGE 3" OF BOTTOM ENDS OF ALL THREE TUBES AND INSERT A 9" LONG SECTION OF ALUM. TUBE 0.85" DIA. 0.035" WALL FOR CONNECTION TO ADJACENT TOWER SECTION OR BASE

ISOMETRIC

SCALE: N.T.S.

ELEVATION

SCALE: 1/2"=1'-0"

PLAN VIEW

SCALE: 1/2"=1'-0"

TOP SECTION

UNIVERSAL TOWERS

A DIVISION OF

UNIVERSAL MANUFACTURING CORP.

43900 GROSEBECK HWY.

CLINTON TOWNSHIP, MI 48036

PH: (586) 463-2560

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JOB NO.:

COMPONENT:

11-TOP
$\frac{3}{4}''$ DIA. ALUMINUM BARS - BENT AS SHOWN - $\frac{1}{4}''$ R. MIN.

$1'' \times 0.065$ WALL ALUMINUM TUBE

SWAGE $3''$ OF BOTTOM ENDS OF ALL THREE TUBES AND INSERT A $9''$ LONG SECTION OF ALUM. TUBE $0.85''$ DIA. $0.035''$ WALL FOR CONNECTION TO ADJACENT TOWER SECTION OR BASE

$\frac{1}{2}''$ MIN. LENGTH ARGON GAS 'MIG' WELD (TYP.)

ELEVATION
SCALE: $1/2'' = 1'-0''$

PLAN VIEW
SCALE: $1/2'' = 1'-0''$

TAPERED SECTION

14-TAPR
1½" MIN. LENGTH ARGON GAS 'MIG' WELD (TYP.)

6 EQUAL SPACES AT 18" EACH = 9'-0"

1½" DIA. ALUMINUM BARS - BENT AS SHOWN - 1½" R. MIN.

1" X 0.065 WALL ALUMINUM TUBE

SWAGE 3" OF BOTTOM ENDS OF ALL THREE TUBES AND INSERT A 9" LONG SECTION OF ALUM. TUBE 0.85" DIA. 0.035" WALL FOR CONNECTION TO ADJACENT TOWER SECTION OR BASE

ISOMETRIC
SCALE: N.T.S.

ELEVATION
SCALE: 1/2"=1'-0"

PLAN VIEW
SCALE: 1/2"=1'-0"
1½" MIN. LENGTH ARGON GAS 'MIG' WELD (TYP.)

1½" DIA. ALUMINUM BARS - BENT AS SHOWN - 1½" R. MIN.

1½" x 0.083 WALL ALUMINUM TUBE

SWAGE 3.26" OF BOTTOM ENDS OF ALL THREE TUBES AND INSERT A 9" LONG SECTION OF ALUM. TUBE 1" DIA. 0.065" WALL FOR CONNECTION TO ADJACENT TOWER SECTION OR BASE

ISOMETRIC
SCALE: N.T.S.

ELEVATION
SCALE: 1/2"=1'-0"

PLAN VIEW
SCALE: 1/2"=1'-0"
1½" MIN. LENGTH ARGON GAS 'MIG' WELD (TYP.)

½" DIA. ALUMINUM BARS - BENT AS SHOWN - 1½" R. MIN.

1½" x 1.300" I.D. ALUMINUM TUBE

SWAGE 3.26" OF BOTTOM ENDS OF ALL THREE TUBES AND INSERT A 9" LONG SECTION OF ALUM. TUBE 1.25" DIA. 0.083" WALL FOR CONNECTION TO ADJACENT TOWER SECTION OR BASE

ISOMETRIC
SCALE: N.T.S.

ELEVATION
SCALE: 1/2"=1'-0"

PLAN VIEW
SCALE: 1/2"=1'-0"
1 1/4" x 1.300" I.D. ALUMINUM TUBE

1/2" DIA. ALUMINUM BARS - BENT AS SHOWN - 1 1/2" R. MIN.

SWAGE 3.26" OF BOTTOM ENDS OF ALL THREE TUBES AND INSERT A 9" LONG SECTION OF ALUM. TUBE 1.25" DIA. 0.083" WALL FOR CONNECTION TO ADJACENT TOWER SECTION OR BASE

1/2" MIN. LENGTH ARGON GAS 'MIG' WELD (TYP.)

6 EQUAL SPACES AT 18" EACH = 9'-0"

1'-8 3/4"
1/2" MIN. LENGTH ARGON GAS 'MIG' WELD (TYP.)

3/16" DIA. ALUMINUM BARS - BENT AS SHOWN - 1/2" R. MIN.

1 3/16" x 1.300" I.D. ALUMINUM TUBE

SWAGE 3.26" OF BOTTOM ENDS OF ALL THREE TUBES AND INSERT A 9" LONG SECTION OF ALUM. TUBE 1.25" DIA. 0.083" WALL FOR CONNECTION TO ADJACENT TOWER SECTION OR BASE.

ELEVATION
SCALE: 1/2"=1'-0"

PLAN VIEW
SCALE: 1/2"=1'-0"
1 1/2" MIN. LENGTH ARGON GAS 'MIG' WELD (TYP.)

9/16" DIA. ALUMINUM BARS - BENT AS SHOWN - 1/2" R. MIN.

1 1/4" x 1.300" I.D. ALUMINUM TUBE

SWAGE 3.28" OF BOTTOM ENDS OF ALL THREE TUBES AND INSERT A 9" LONG SECTION OF ALUM. TUBE 1.25" DIA. 0.083" WALL FOR CONNECTION TO ADJACENT TOWER SECTION OR BASE

ELEVATION
SCALE: 1/2"=1'-0"

PLAN VIEW
SCALE: 1/2"=1'-0"
½" MIN. LENGTH ARGON GAS ‘MIG’ WELD (TYP.)

SWAGE 4½ OF BOTTOM ENDS OF ALL THREE TUBES FOR CONNECTION TO ADJACENT TOWER SECTION OR BASE

1¾" DIA. ALUMINUM BARS - BENT AS SHOWN - 1½" R. MIN.

1.708"x1.300" I.D. ALUMINUM TUBE

6 EQUAL SPACES AT 18" EACH = 9'-0"

1'-6"

2'-3/4"

5"

2'-4"

1'-1"

2'-4"

2'-4" C.C.

2'-2" C.O.

WEBBING
HINGED CONNECTION ASSEMBLY - REFER TO ENLARGED DETAIL BELOW

2"x2"x3/4" ANCHORAGE

2" T.S. 0.10" WALL - 72" LONG

OUTLINE OF CONCRETE FOOTING

SEE ENLARGED DETAIL - THIS SHEET

THREE (3) 3/8" THRU-HOLES PERPENDICULAR TO EACH OTHER

TWO (2) 1/2" GRD. 8 BOLTS

NOTE: FOUNDATIONS ARE DESIGNED FOR FIRM BEARING SOIL.

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BASE FOOTING

COMPONENT:

JOB NO.

SCALE: 1/2"=1'-0"

PLAN VIEW

ISOMETRIC

SCALE: N.T.S.

ELEVATION

SCALE: 1/2"=1'-0"

2" x 1.300" I.D. STEEL TUBE

6" HINGED SLEEVE

1 1/8" PLATE

1 1/8" GAP

2" x 3/4" x 12" PLATE