

Portland Columns Provide Rock Solid Support

# SIMPLY DESIGNED. BUILT FOR DEPENDABILITY.

# **Portland Columns**

Everyone needs support in their lives. Most homes in the northeast are built with columns (aka: lally columns). Installed for structural support and usually found in basements, the distinctive red poles are 16 or 11 gauge steel tubes filled with premium concrete. Portland Columns are used as structural members to transfer axial compressive loads, from steel or wood beams, to footings.



COLUMN DIAMETER	LENGTHS AVAILABLE
3 1/2" 16 gauge	6' to 12' See ICC-ES Legacy Report No. 93-36.02
4" 16 gauge	6' to 14' See ICC-ES Legacy Report No. 93-36.02
4" 11 gauge	6' to 18'
6" 11 gauge	6' to 14'





Columns are inspected & certified annually by an independent auditor for ICC Evaluation Services. Portland Columns have been ICC-ES code compliant for more than 23 years. See ICC-ES Legacy Report No. 93-36.02 for complete information and specifications on Portland Columns on our Portland Column web page.

## TRUSTED FOR STRENGTH.

## **Plates**

### Your choice for securing a column to the beam





#### **Standard Plate**

Standard Plates are 5" x 5" with small tabs for the top or base of columns. These can be ordered pre-welded to an end of a column.



#### Saddle Plate with Ring



#### **Springfield Plate**

The Springfield Plate is 6"  $\times$  8"  $\times$  1/4" thick. It has a welded ring that encompasses the top or base of a 3 1/2" or 4" column. There are 7/16" diameter holes around the welded ring that allow screws to secure the plate to the beam.

This plate is made from 12-gauge low carbon steel to wrap the sides of a beam. Eight 3/16" holes are made into the sides of the saddle for the saddles to be bolted into the beam. A ring made for  $3\frac{1}{2}$ " or 4" columns is welded to the bottom of the saddle. It comes in different size saddles to fit different beams. The sizes are as follows:



#### **Springfield Plate with Tabs**

The Springfield Plate with Tabs is  $6" \times 8" \times 1/4"$  thick. The diameter of the holes around the tabs are 7/16". The large tabs securely grab the top or the base of a column.

3 1/8" x 11 ½" for 2 2x's 3 5/8" x 11 ½" for 2 LVL 4 5/8" x 11 1/2" for 3 2x's 5 3/8" x 11 ½" for 3 LVL 6 1/8" x 11 ½" for 4 2x's 7 1/8" x 11 ½" for 4 IVL

## **Custom Columns**

## Portland Stone Ware offers the ability to customize any column required for a project.

We use the same concrete used in our stock 16 gauge column required for a project, but we can customize the steel gauge for any application per the specifications. Schedule 40 and 80 are available upon request (please provide nominal size). If a plate needs to be welded to a column, we have the ability to weld in-house.

Please note Portland Columns strength is listed below in Table 1 from our ICC-ES Legacy Report No. 93-36.02. The unit of measure is in kips which is a unit of force used by architects and engineers to measure engineering loads.

One kip is about 1000 pounds.

## TABLE 1 (from ICC-ES Legacy Report No. 93-36.02)

3 1/2-INCH and 4-INCH PORTLAND COLUMN DESIGN COMPRESSIVE STRENGTH1

COLUMN LENGTH (IN FEET)	<b>DESIGN COMPRESSIVE</b> 3 1/2-INCH COLUMN <sup>2</sup>	STRENGTH (IN KIPS) 4-INCH COLUMNM
6.0	25.1	33.3
6.5	23.6	31.8
7.0	22.2	30.3
7.5	20.7	28.8
8.0	19.3	27.2
8.5	17.8	25.7
9.0	16.4	24.1
9.5	15.1	22.6
10.0	13.8	21.0
11.0	11.3	18.1
12.0	9.1	15.3
13.0	N.D.	12.8
14.0	N.D.	10.6

#### Notes to Table 1:

- 1. The compressive strength of the columns given above are based on factored load design. These values shall be used to determine the columns ability to resist the design loads given in the BOCA National Building Code/1999, when multiplied by the factors given in the AISC Load and Resistance Factor Design Specifications for Structural Steel Buildings, 1998 edition.
- 2. N.D. = Not Determined.





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Portland Stone Ware is a wholesale distributor, servicing the lumber and masonry industry since 1847.



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