

ARCHITECTURAL WOOD COLUMNS



Harrison Design Associates



Hartmann-Sanders Architectural Wood Columns are based on the timeless Orders of Classical Architecture. From the design of the capital to the proportions and shape of the column shaft, we follow the standards of classic column design. With over 100 years of experience manufacturing columns, Hartmann-Sanders offers the largest selection of Architectural Wood Columns in the industry.

We recommend solid stave or finger-joint western red cedar or clear all heart redwood for exterior applications. It is naturally weather resistant and immune to decay and infestation. Pine or poplar may be used for interior columns that are to be painted. We also offer a large selection of stain grade columns. Oak, cherry, maple, mahogany and poplar are the most common species used for stain grade, however other wood species are available upon request. An interior asphalt-

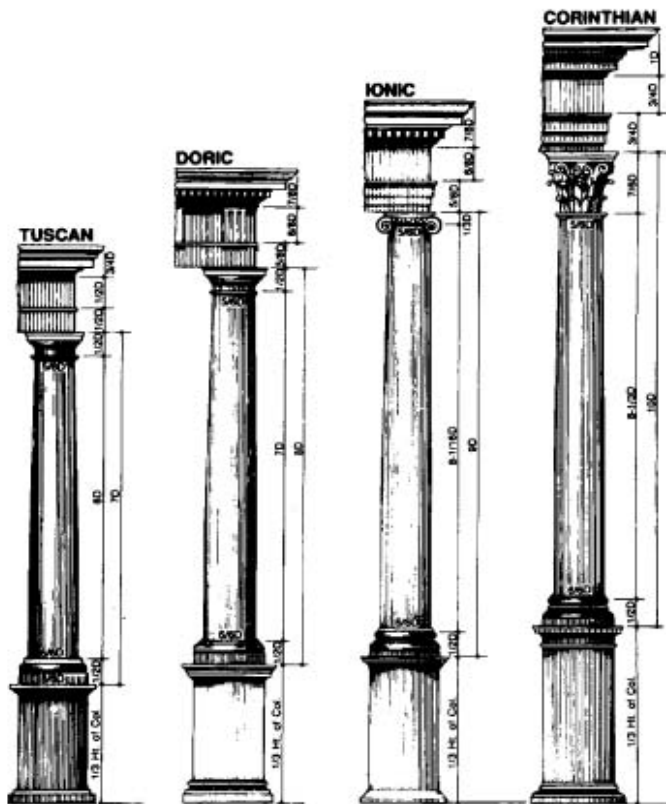
tum coating is applied on all columns to be used for exterior use. Columns that will be painted are primed with two to three coats of an oil-based primer after they are turned. Each coat of primer is hand sanded to give an excellent surface for your final topcoats.

Columns may serve as a structural member or as a decorative accent. Columns which are to be installed around a structural post for decorative purposes will be manufactured in halves and provided with a spline joint for aligning the halves. For load bearing capacities, please contact our Architectural Specialists.

A large selection of capitals and base/plinths are available and are manufactured from a high-density polyurethane, fiberglass or wood. Numerous styles of Decorative Capitals are also available to complement any design.

The Five Orders of Architecture

The predominant designs of Hartmann-Sanders Columns are based on the three Grecian and two Latin orders of Architecture.



Tuscan:

Tuscan is the Latin order Vignola put first for its massive simplicity. It comprises the fewest parts and appears capable of bearing the heaviest loads. Classically, the shaft length is seven times its diameter and plain rather than fluted.

Doric:

The Doric column is next in strength and simplicity to the Tuscan. Quite often it is seen without a base, in imitation of trees. Classically, the shaft length is eight times its bottom diameter. Doric shafts may be plain or fluted by 20 shallow channels. The Romans adapted this Greek order by creating more decorative bases and capitals.

Ionic:

The classically correct Ionic column shaft is slightly more than nine times its bottom diameter in length, so it is more graceful than the Doric. Its easily recognizable capital is decorated with spiral volutes both in the original Greek and adapted Roman design. The shaft is often decorated with 24 semi circular flutes separated by flat edges or fillets.

Corinthian:

The most slender (ten times the bottom diameter) belongs to the Greek Corinthian order and its adaption, the Latin Composite. The Corinthian order features an inverted bell shaped capital decorated with two tiers of eight stylized acanthus leaves, topped by volutes. The shaft is plain or fluted in the Ionic style.

Composite:

This order is the Roman adaptation of the Corinthian order, with an even more ornate capital. It uses the same proportions for base, shaft, capital and entablature as the Corinthian order; the shaft, again, is plain or fluted in the Ionic style.



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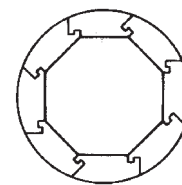




Fluting

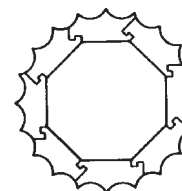
Column shafts may be plain or fluted, with the flutes being of either Doric or Ionic design. The following illustrations show each design.

Plain



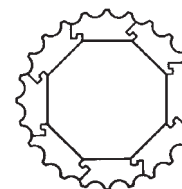
Doric

Section showing the standard 20 Doric Flutes on designs 215 and 195.



Ionic

Section showing the standard 24 Ionic flutes on all other fluted column designs.

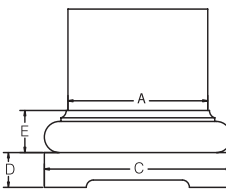
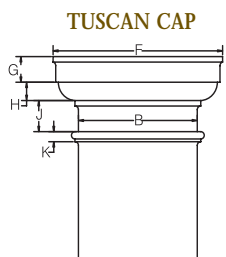


Ordering or Estimating

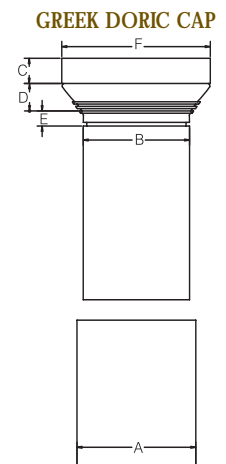
Columns, Pilasters, or Square Columns:

The following information is necessary for estimating or processing your requirements:

1. Quantity Required.
2. Design or Catalog Number or Description.
3. Plan Type (if F, G, H, K, O, shaft returns need to be noted).
4. Bottom Diameter and Overall Length.
5. Indicate if for Exterior or Interior Application.
6. Wood Shaft Material.
7. Indicate size and shape of structural post if column needs to be split for reassembly.
8. Will column have to match an existing column?



TUSCAN BASE/PLINTH



GREEK DORIC CAP

TUSCAN CAP & BASE/PLINTH {column design #200 plain; #205 fluted}

Column Bottom Dia.	Top Dia.	Plinth		Base Mold	Cap Square		Cap Round		
		C	D		E	F	G	H	J
6	5	8 1/2	1 1/2	1 3/4	7 1/2	1 1/6	1 1/6	1 1/4	3/4
8	6 1/2	10 3/4	1 7/8	2 3/8	9 3/8	1 3/8	1	1 5/8	1
10	8 1/2	13 3/8	2 1/8	2 7/8	12 1/8	1 3/4	1 1/4	2 1/6	1 1/4
12	10	16 1/2	2 3/4	3 1/4	14 3/8	2	1 3/8	2 1/2	1 3/8
14	12	18 3/4	3 3/8	4	17 1/8	2 3/8	1 5/8	2 3/8	1 1/2
16	13 1/2	21 1/2	3 3/8	4 1/2	19 1/4	2 3/4	1 7/8	3 3/8	2
18	15	24 1/4	4 1/4	5 3/8	21 1/2	3	2 1/8	3 3/4	2 1/8
20	17	27	4 3/4	6	24 1/4	3 3/8	2 1/4	4 1/4	2 1/4
22	18 1/2	29 3/4	5 1/4	6 3/8	26 1/2	3 3/4	2 1/2	4 1/2	2 1/2
24	20	32 1/2	5 3/4	7 1/8	28 3/4	4 1/8	2 3/4	5	2 3/8
26	22	35	6 1/4	8 3/8	31 1/2	4 3/8	3	5 3/8	2 7/8
28	23 1/2	38	6 3/4	8 3/4	33 3/4	4 3/4	3 1/4	5 3/8	3
30	25	40 1/2	7 1/4	9 1/4	35 3/4	5 1/8	3 1/2	6 1/4	3 1/2
32	27	43 3/8	7 3/4	10	37 3/8	5 1/2	3 3/4	6 3/8	3 3/8
34	28 1/2	46	8 1/4	10 1/2	41	5 3/4	3 3/4	7 1/8	3 3/4
36	30	48 3/4	8 3/4	11 3/8	42 3/4	6 1/4	4 1/4	7 1/2	4

GREEK DORIC CAP & NO BASE {column design #190 plain; #195 fluted}

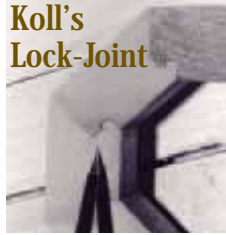
Column Bottom Dia. (inches)	Top Dia.	Cap Square	Cap Round	Cap Neck	Square
A	B	C	D	E	F
6	5	1 3/8	1 3/8	1/2	7 3/4
8	6 1/2	1 3/8	1 3/8	1/2	9 1/4
10	8 1/4	1 3/4	2 1/6	3/4	11 3/8
12	9 3/4	2 1/8	2 3/6	3/4	13 3/4
14	11 1/4	2 3/6	2 13/6	1	16
16	12 3/4	2 13/6	3 3/6	1 1/6	18 1/2
18	14 1/2	3 1/8	3 11/6	1 1/4	20 1/2
20	16	3 1/2	4 1/6	1 7/6	22 5/8
22	18	3 3/4	4 3/6	1 1/6	25 1/4
24	19 1/2	4 1/4	4 7/8	1 3/4	27 1/8
26	20 1/2	4 3/6	5 1/6	1 3/8	29
28	22 1/2	4 7/8	5 3/4	2	31 3/4
30	24	5 1/4	6 3/6	2 1/6	34
32	26	5 3/8	6 3/6	2 1/4	36 3/4
34	27 1/4	5 3/8	6 7/8	2 3/8	38 3/4
36	29	8 1/4	7 3/8	2 1/2	41

Stave Construction:

Our Wood Column shafts are formed of nominal 4" wide staves. The thickness of the stave depends on the height and diameter of the column shaft. Each stave is connected to the next with our patented Koll's Lock-Joint, and is tapered to achieve uniform thickness throughout the shaft length. With today's advanced glues we are able to offer the tongue and groove joint for exterior columns with the same

warranty as the Koll's Lock-Joint. The staves are glued with the highest quality Type 1 water-resistant glue, inter-locked, and kept under pressure for a minimum of eighteen hours.

**Koll's
Lock-Joint**



Stave Thickness:

Our experience in the construction of columns has indicated that the thickness of the stock used is important and must provide enough material for proper architectural detail and strength. The nominal thickness of stock used is shown in the table below.

STAVE THICKNESS

Plain Shaft Size (Dia.)	Stave Thickness	Fluted Shaft Size (Dia.)	Stave Thickness
Up to 10" and 10' tall	1.5"	6" to 10"	1.5"
11" to 20"	2"	11" to 18"	2"
21" to 26"	3"	19" to 24"	3"
27" and up	4"	25" and up	4"

ROMAN DORIC CAP & BASE/PLINTH

{column design #210
plain; #215 fluted}

Column Bottom Dia.	Plinth		Base Mold	Cap Square		Cap Round			
	A	B		F	G	H	J	K	
6	5	8 1/2	1 1/2	1 3/4	8	1 1/2	3/8	1 1/4	3/4
8	6 1/2	10 3/4	1 3/4	2 1/2	9 3/4	1 3/4	1 1/8	1 1/2	1
10	8 1/2	13 3/4	2 1/4	3	12 1/2	1 3/4	1 3/8	2 1/8	1 1/4
12	10	16 3/4	2 3/4	3 3/8	14 3/4	2 3/4	1 5/8	2 1/2	1 3/8
14	12	18 3/4	3 3/8	4	17 1/2	2 3/4	2	2 3/4	1 1/2
16	13 1/2	21 1/2	3 3/4	4 3/4	19 3/4	3 1/2	2 1/4	3 3/8	2
18	15	24 1/4	4 1/4	5 3/8	22 1/4	3 1/2	2 1/2	3 3/4	2 1/2
20	17	27	4 3/4	6 1/4	25	4	2 3/4	4 1/8	2 1/4
22	18 1/2	29 3/4	5 1/4	6 3/4	27 3/4	4 3/8	3	4 1/2	2 1/2
24	20	32 1/2	5 3/4	7 1/2	29 3/4	4 1/2	3 1/4	5	2 3/4
26	22	35	6 1/4	8 1/8	32 1/2	5 1/8	3 1/2	5 3/8	2 3/4
28	23 1/2	38	6 3/4	8 3/8	34 3/4	5 1/2	3 3/8	5 5/8	3
30	25	40 3/4	7 1/4	9 3/8	37	5 3/4	4 1/8	6 1/4	3 1/2
32	27	43 3/4	7 3/4	10	39 3/4	6 1/4	4 1/4	6 3/4	3 3/4
34	28 1/2	46	8 1/4	10 3/4	42 1/2	6 3/4	4 3/8	7 1/8	3 3/4
36	30	48 3/4	8 3/4	11 1/4	44 3/4	7	5	7 1/2	4

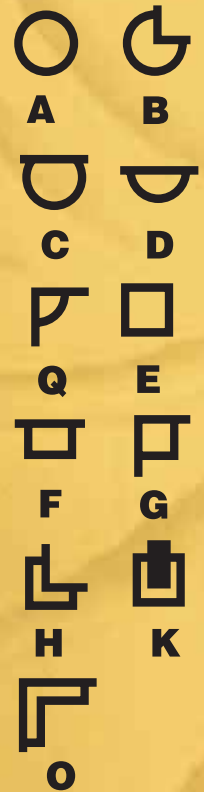
ROMAN DORIC CAP & ATTIC BASE/PLINTH

{column design #220
plain; #225 fluted}

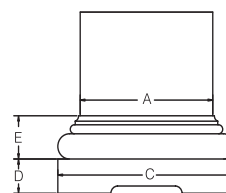
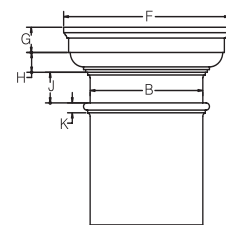
Column Bottom Dia.	Plinth		Base Mold	Cap Square		Cap Round			
	A	B		F	G	H	J	K	
6	5	8 1/2	1 1/2	2 7/16	8	1 1/2	3/8	1 1/4	3/4
8	6 1/2	10 3/4	1 3/4	3 1/4	9 3/4	1 3/4	1 1/8	1 1/2	1
10	8 1/2	13 3/4	2 1/4	3 7/8	12 1/2	1 3/4	1 1/8	2 1/8	1 1/4
12	10	16 3/4	2 3/4	4 1/2	14 3/4	2 3/4	1 3/8	2 1/2	1 3/8
14	12	18 3/4	3 3/8	5 3/8	17 1/2	2 3/4	2	2 3/4	1 1/2
16	13 1/2	21 1/2	3 3/4	6 1/4	19 3/4	3 1/2	2 1/4	3 3/8	2
18	15	24 1/4	4 1/4	7 1/8	22 1/4	3 1/2	2 1/2	3 3/4	2 1/2
20	17	27	4 3/4	8 1/8	25	4	2 3/4	4 1/8	2 1/4
22	18 1/2	29 3/4	5 1/4	9	27 3/4	4 3/8	3	4 1/2	2 1/2
24	20	32 1/2	5 3/4	9 15/16	29 3/4	4 1/2	3 1/4	5	2 3/4
26	22	35	6 1/4	10 3/8	32 1/2	5 1/8	3 1/2	5 3/8	2 3/4
28	23 1/2	38	6 3/4	11 3/8	34 3/4	5 1/2	3 3/8	5 7/8	3
30	25	40 3/4	7 1/4	12	37	5 3/4	4 1/8	6 1/4	3 1/2
32	27	43 3/4	7 3/4	13 3/8	39 3/4	6 1/4	4 1/4	6 3/4	3 3/4
34	28 1/2	46	8 1/4	14	42 1/2	6 3/4	4 3/8	7 1/8	3 3/4
36	30	48 3/4	8 3/4	14 3/4	44 3/4	7	5	7 1/2	4



Plan Types:

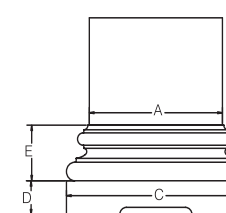
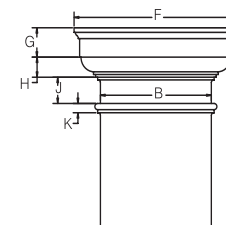


ROMAN DORIC CAP



ROMAN DORIC
BASE/PLINTH

ROMAN DORIC CAP



ATTIC BASE/PLINTH

LOAD BEARING CAPACITY

Bottom Dia. (inches)	Stave Thickness	Height	Load Bearing Capacity (lbs.)
12	2"	10'	6,000
18	2"	14'	10,000
20	3"	16'	14,000
24	3"	18'	18,000