ICC-ES Evaluation Report

ESR-2287

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DIVISION: 10 00 00—SPECIALTIES
Section: 10 32 00—Fireplace Specialties

REPORT HOLDER:

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EVALUATION SUBJECT:

EUROPEAN COPPER CHIMNEY POTS

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2006 *International Building Code*® (IBC)
- 2006 *International Residential Code*® (IRC)

Properties evaluated:

- Heat and corrosion resistance
- Net free ventilation area
- Ventilation opening size

2.0 USES

European Copper Chimney Pots are used as spark arrestors on masonry chimneys in accordance with IBC Section 2113.9.1 and IRC Section R1003.9.1.

3.0 DESCRIPTION

3.1 General:

European Copper Chimney Pots are made of minimum 0.204-inch-thick (5.18 mm) copper designed to mount atop masonry chimneys. The cap tops are removable to allow cleaning of the chimney flue. The maximum flue size for each chimney pot model is shown in Table 1.

3.2 Sustainable Attributes:

See ICC-ES VAR-1001 for determination of recycled content type and amount.

4.0 INSTALLATION

European Copper Chimney Pots must be installed in accordance with the manufacturer's published installation instructions and this report. If requested by the code official, a copy of this report must be available on the jobsite at all times during installation.

5.0 CONDITIONS OF USE

The European Copper Chimney Pots described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

5.1 This evaluation report and the manufacturer's published installation instructions, when required by the code official, must be submitted at the time of permit application.

5.2 European Copper Chimney Pots must be installed in accordance with the manufacturer's published installation instructions, this evaluation report and the applicable code. In the event of a conflict between this report and the manufacturer's published installation instructions, this report governs.

5.3 European Copper Chimney Pots are limited to use as spark arrestors on masonry chimneys in accordance with IBC Section 2113.9.1 and IRC Section R1003.9.1.

5.4 European Copper Chimney Pots must be attached to noncombustible materials of the chimney assembly using stainless steel fasteners in accordance with the manufacturer's published installation instructions.

5.5 Use of the European Copper Chimney Pots with decorative termination shrouds is outside the scope of this report.

6.0 EVIDENCE SUBMITTED

6.1 Data in accordance with IBC Section 2113.9.1 and IRC Section R1003.9.1.

6.2 A quality control manual.

6.3 Manufacturer's published installation instructions.

7.0 IDENTIFICATION

Each European Copper Chimney Pot is identified with the manufacturer's name (European Copper, LLC), address and telephone number; the model name; and the evaluation report number (ESR-2287).

TABLE 1—NET FREE AREA RATIOS OF SPARK ARRESTORS
(See Item 1 of IBC Section 2113.9.1 and Item 1 of IRC Section R1003.9.1)

MODEL	MODEL FLOW AREA (inches)	FLUE STYLE AND DIMENSIONS	ESTIMATED FLUE AREA[1] (inches)	AREA RATIO (pot/flue)
Pawn	415.11	Rectangular Flue:		
		$8^1/_2$" X $8^1/_2$"	51	8.14/1
		8"X12"	57	7.28/1
		8"X16"	74	5.61/1
		$8^1/_2$"X13"	79	5.25/1
		12"X12"	87	4.77/1
		Oval Flue:		
		$8^1/_2$"X13"	69	6.02/1
		$8^1/_2$"X17"	87	4.77/1
		Round Flue:		
		8"	47	8.83/1
		10"	74.5	5.57/1
Knight	457.51	Rectangular Flue:		
		$8^1/_2$" X $8^1/_2$"	51	8.97/1
		8" X 12"	57	8.03/1
		8" X 16"	74	6.18/1
		$8^1/_2$" X 13"	79	5.79/1
		12" X 12"	87	5.26/1
		$8^1/_2$" X 18"	108	4.24/1
		Oval Flue:		
		$8^1/_2$" X 13"	69	6.63/1
		$8^1/_2$" X 17"	87	5.26/1
		10" X 18"	112	4.08/1
		Round Flue:		
		8"	47	9.73/1
		10"	74.5	6.14/1
		12"	108	4.24/1
Knight II	257.19	Rectangular Flue:		
		$8^1/_2$" X $8^1/_2$"	51	5.04/1
		8" X 12"	57	4.51/1
		Round Flue:		
		8"	47	5.47/1
Bishop	400.29	Rectangular Flue:		
		$8^1/_2$" X $8^1/_2$"	51	7.85/1
		8" X 12"	57	7.02/1
		8" X 16"	74	5.41/1
		$8^1/_2$" X 13"	79	5.07/1
		12" X 12"	87	4.60/1
		Oval Flue:		
		$8^1/_2$" X 13"	69	5.80/1
		$8^1/_2$" X 17"	87	4.60/1
		Round Flue:		
		8"	47	8.52/1
		10"	74.5	5.37/1
Bishop II	371.63	Rectangular Flue:		
		$8^1/_2$" X $8^1/_2$"	51	7.29/1
		8" X 12"	57	6.52/1
		8" X 16"	74	5.02/1
		$8^1/_2$" X 13"	79	4.70/1
		12" X 12"	87	4.27/1
		Oval Flue:		
		$8^1/_2$" X 13"	69	5.39/1
		$8^1/_2$" X 17"	87	4.27/1
		Round Flue:		
		8"	47	7.91/1
		10"	74.5	4.99/1

TABLE 1—NET FREE AREA RATIOS OF SPARK ARRESTORS (Continued)
(See Item 1 of IBC Section 2113.9.1 and Item 1 of IRC Section R1003.9.1)

MODEL	MODEL FLOW AREA (inches)	FLUE STYLE AND DIMENSIONS	ESTIMATED FLUE AREA[1] (inches)	AREA RATIO (pot/flue)
Queen	355.15	Rectangular Flue:		
		8 1/2" X 8 1/2"	51	6.96/1
		8" X 12"	57	6.23/1
		8" X 16"	74	4.80/1
		8 1/2" X 13"	79	4.50/1
		12" X 12"	87	4.08/1
		Oval Flue:		
		8 1/2" X 13"	69	5.15/1
		8 1/2" X 17"	87	4.08/1
		Round Flue:		
		8"	47	7.56/1
		10"	74.5	4.77/1
King	505.09	Rectangular Flue:		
		8 1/2" X 8 1/2"	51	9.90/1
		8" X 12"	57	8.86/1
		8" X 16"	74	6.83/1
		8 1/2" X 13"	79	6.39/1
		12" X 12"	87	5.81/1
		8 1/2" X 18"	108	4.68/1
		12" X 16"	120	4.21/1
		13" X 13"	125	4.04/1
		Oval Flue:		
		8 1/2" X 13"	69	7.32/1
		8 1/2" X 17"	87	5.81/1
		10" X 18"	112	4.51/1
		Round Flue:		
		8"	47	10.75/1
		10"	74.5	6.78/1
		12"	108	4.68/1

For **SI:** 1 inch = 25.4 mm.

[1]The estimated flue area of the chimney outlet is based on a minimum 1-inch-thick (25.4 mm) clay flue lining. The actual flue area (net free area of the outlet of the chimney) must be equal to or less than 1/4 the net free area of the spark arrestors specified in this table to be in compliance with Item 1 of the IBC Section 2113.9.1 and Item 1 of IRC Section R1003.9.1.

ICC-ES SAVE: Verification of Attributes Report™

VAR-1001

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EVALUATION SUBJECT:

EUROPEAN COPPER CHIMNEY POTS (MODELS: PAWN, KNIGHT, KNIGHT II, BISHOP, BISHOP II, QUEEN, AND KING)

1.0 EVALUATION SCOPE

Compliance with the following evaluation guideline:

ICC-ES Evaluation Guideline for Determination of Recycled Content of Materials (EG101), dated October 2008 (editorially revised July 2009).

Compliance eligibility with the applicable sections of the following green building rating systems, standards and codes:

- 2010 California Green Building Standards Code (CALGreen), Title 24, Part 11 (see Table 3 for details)
- National Green Building Standard (ICC 700-2008) (see Table 4 for details)
- LEED 2009 for New Construction and Major Renovations (LEED NC) (see Table 5 for details)
- ANSI/GBI 01-2010 – Green Building Assessment Protocol for Commercial Buildings (see Table 6 for details)

2.0 USES

European Copper Chimney Pots are used as spark arrestors on masonry chimneys.

3.0 DESCRIPTION

European Copper Chimney Pots are constructed of a copper outer shell, a stainless steel inner lining, stainless steel clips and stainless steel rivets.

The products contain the minimum types and percentage of recycled content, by weight, as set forth in Tables 1 and 2. Table 1 covers the chimney pots constructed from Classic Copper and Table 2 covers the chimney pots constructed from Freedom Gray Copper.

4.0 CONDITIONS

4.1 Code Compliance:

See ICC-ES evaluation report ESR-2287 for compliance with code requirements.

4.2 Green Rating Systems, Standards and Codes Eligibility:

The information presented in Tables 3 through 6 of this report provides a matrix of areas of evaluation and corresponding limitations and/or additional project-specific requirements, and offers benefit to individuals who are assessing eligibility for credits or points.

The final interpretation of the specific requirements of the respective green building rating systems, standards and/or codes rests with the developer of that specific rating system, standard or code or the Authority Having Jurisdiction, as applicable.

Compliance with the items noted as “Verified Attribute” is subject to any conditions noted in Tables 3 though 6. The user is advised of the project-specific provisions that may be contingent upon meeting specific conditions; verification of those conditions is outside the scope of this report. Rating systems or standards may provide supplemental information as guidance.

5.0 BASIS OF EVALUATION

The information in this report, including any “Verified Attribute,” is based upon the ICC-ES Evaluation Guideline for Determination of Recycled Content of Materials (EG101). [Evaluation applies to CALGreen Section A4.405.3 and A5.405.4; ICC 700 Section 604.1; LEED NC MR Credit 4; ANSI/GBI 01-2010 Section 10.2.1.1.]

6.0 IDENTIFICATION

European Copper Chimney Pots are identified with the manufacturer’s name, address and telephone number; the model name; and the VAR number (VAR-1001).

TABLE 1—SUMMARY OF RECYCLED CONTENT (BY WEIGHT): CLASSIC COPPER CHIMNEY POTS

RECYCLED MATERIALS	% PRE-CONSUMER RECYCLED CONTENT	% TOTAL RECYCLED CONTENT
PAWN		
Classic Copper	70.3	84.5
Stainless Steel	14.2	
KNIGHT		
Classic Copper	68.5	84
Stainless Steel	15.5	
KNIGHT II		
Classic Copper	73.9	85.5
Stainless Steel	11.6	
BISHOP		
Classic Copper	64	82.7
Stainless Steel	18.7	
BISHOP II		
Classic Copper	68	83.8
Stainless Steel	15.8	
KING		
Classic Copper	61	81.9
Stainless Steel	20.9	
QUEEN		
Classic Copper	62	82.2
Stainless Steel	20.2	

TABLE 2—SUMMARY OF RECYCLED CONTENT (BY WEIGHT): FREEDOM GRAY COPPER CHIMNEY POTS

RECYCLED MATERIALS	% PRE-CONSUMER RECYCLED CONTENT	% TOTAL RECYCLED CONTENT
PAWN		
Freedom Gray Copper	64.5	78.7
Stainless Steel	14.2	
KNIGHT		
Freedom Gray Copper	62.8	78.3
Stainless Steel	15.5	
KNIGHT II		
Freedom Gray Copper	67.7	79.3
Stainless Steel	11.6	
BISHOP		
Freedom Gray Copper	58.7	77.4
Stainless Steel	18.7	
BISHOP II		
Freedom Gray Copper	62.3	78.1
Stainless Steel	15.8	
KING		
Freedom Gray Copper	55.9	76.8
Stainless Steel	20.9	
QUEEN		
Freedom Gray Copper	56.8	77
Stainless Steel	20.2	

TABLES 3 THROUGH 6

Section Number	Section Intent	Possible Points	Conditions of Use to Qualify for Points	Finding
TABLE 3—SUMMARY OF AREA OF ELEGIBILITY WITH THE 2010 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN)				
A4.405.3	Recycled content	N/A	Use materials, equivalent in performance to virgin materials, with post-consumer or preconsumer recycled content value (RCV) for a minimum of 10% of the total value, based on estimated cost of materials on the project. Tier 1. Not less than a 10% recycled content value. Tier 2. Not less than a 15% recycled content value.	●
A5.405.4	Recycled content	N/A	Tier 1: Use materials, equivalent in performance to virgin materials, with post-consumer or pre-consumer RCV for a minimum of 10% of the total value, based on estimated cost of materials on the project. Tier 2: Use materials, equivalent in performance to virgin materials, with post-consumer or pre-consumer RCV for a minimum of 15% of the total value, based on estimated cost of materials on the project. The recycled content of a material assembly shall be determined by weight, and the fractional value of the weight is then multiplied by the total estimated cost of the material assembly.	●
TABLE 4—SUMMARY OF AREA OF ELEGIBILITY WITH THE NATIONAL GREEN BUILDING STANDARD (ICC 700-2008)				
604.1	Use building materials containing recycled content	3	3 points may be earned when products are used with another minor building component with recycled content of more than 75%.	●
TABLE 5—SUMMARY OF AREA OF ELEGIBILITY WITH USGBC'S LEED 2009 FOR NEW CONSTRUCTION AND MAJOR RENOVATIONS				
MR 4	Recycled content	1 2 max	To earn 1 point use materials with recycled content such that the sum of postconsumer recycled content plus 1/2 of the preconsumer content constitutes at least 10%, based on cost, of the total value of the materials in the project. To earn 2 points use 20% or more.	●
TABLE 6—SUMMARY OF AREA OF ELEGIBILITY WITH ANSI/GBI 01-2010 - GREEN BUILDING ASSESSMENT PROTOCOL FOR COMMERCIAL BUILDINGS				
10.1.2.1	Materials content - Assemblies	1 8 max	Recycled post-consumer or post-industrial (pre-consumer) content materials accounted for 1% to 20% or more of building materials. Percentage is calculated as 100 x A (total cost or weight of recycled content materials) ÷ B (total cost or weight of all building materials).	●

● = Verified attribute