

## BUSINESS PLAN

### CEN/TC 166 CHIMNEYS

#### EXECUTIVE SUMMARY

## 1 SCOPE OF CEN/TC 166

Standardization in the field of chimneys, flues and vents used for conveying products of combustion from all types of combustion systems to outside atmosphere and the connecting pieces and accessories needed for their construction and operation.

Structurally independent chimneys are excluded and covered by CEN/TC 297.

### 1.1 Business Environment

Products are used in all buildings having at least one combustion system.

Parties involved are manufacturers, test laboratories, notified bodies, consumers, public authorities, health authorities, building authorities, Firemen Corp., chimney sweeps and installers.

CEN/TC166 will monitor other existing standards or activities within the European environment affecting the work of TC166, i.e. Gas appliance standards incorporating chimney products.

### 1.2 Benefits

The benefits of chimney standards are:

- Harmonization of existing national product standards and regulations;
- Safety against fire, corrosion and nuisance.

### 1.3 Priorities

The priorities of chimney standards are:

- Response to the European Directive 89/106/CEE and to the new Regulation 305/2011/EU: Construction Products Regulation (CPR) as well to other applicable European Directives;
- Response to the mandates M 105, M 117, M 130, M 134, M 127, M 442 and M 447.
- Removal of barriers to technical requirements of chimneys products.

### 1.4 Categories of relevant stakeholders

The relevant stakeholders for the creation of chimney standards are:

- Manufacturers;
- Authorities, establishing national regulations dealing with the safety and fire requirements;
- Installers;
- Civil engineers;
- Test engineers.

### 1.5 Market

Political, social, technical, legal and international factors that either directly requires some or all of the standardization activities proposed by the CEN/TC 166 or significantly influence them need to be considered.

### **1.6 Political Factors**

Energy saving is a current topic in European politics. Standardisation helps all interested market parties to improve the efficiency and quality of products.

### **1.7 Social Factors**

The social factors related to improvement in technologies need to be considered.

### **1.8 Technical Factors**

The main trends are towards increased efficiency and reduced emissions.

### **1.9 Legal Factors**

Several European countries have stringent specifications for efficiency and/or emissions.

These must not be used as a barrier to trade, but will certainly have an impact on future standardisation for chimneys.

### **1.10 International trade and standardisation aspects**

The European market for chimneys at the time being is more complex than last decades. The use of standards must help in reducing cost for marketing chimneys in the different European countries.

## **1 BUSINESS ENVIRONMENT OF THE CEN/TC 166**

### **1.1 Description of the Business Environment**

The political, economic, technical, regulatory, legal, societal and/or international dynamics describe the business environment of the industry sector, products, materials, disciplines or practices related to the scope of this CEN/TC, and they may significantly influence how the relevant standards development processes are conducted and the content of the resulting standards.

Chimneys consist of different components which can be assembled, e.g. either as system chimneys, that is installed using a combination of compatible chimney components, obtained or specified from one manufacturing source with product responsibility for the whole chimney, or as custom-built chimneys, that is installed or built-on site in accordance with the design, installation and commissioning standard, and in conformity of local laws and regulations, using a combination that may be from one or more sources.

Heating appliances are presently becoming more and more efficient, having lower flue gas temperature and less emissions. The importance of matching the chimney to the appliance by calculation and quality of the chimney product is therefore increasing.

In the past, many Member States installed mainly clay/ceramic and/or concrete chimney products; since two decades products in metal or plastic are being placed on the market, while chimneys of traditional material (clay/ceramic, concrete) were improved under many aspects.

In recent times, operation of chimney products saw the development of new technologies, such as room sealed systems; relining aspects, overpressure chimneys. Chimneys for condensing applications are becoming more important as the appliances efficiency is increasing.

### **1.2 Quantitative Indicators of the Business Environment**

The following list of quantitative indicators describes the business environment in order to provide adequate information to support actions of the CEN/TC.

The market of chimneys is strictly dependent on the construction of new buildings and refurbishment of existing ones.

## **2 BENEFITS EXPECTED FROM THE WORK OF THE CEN/TC 166**

Standards elaborated or under elaboration respond to or are expected to respond to recent changes and major innovations in the field, led to or are expected to support cost savings through implementation of them, removed or are expected to remove technical barriers to trade and open markets throughout Europe, responded to or are expected to address relevant social, safety, health or environmental concerns.

Many standards elaborated and under elaboration support the CPD 89/106/CEE and have already been cited in the OJEC and confer presumption of conformity with the essential requirements of the CPD. Other additional drafts are under development or approval.

Installation procedures are within the legal competence of various member States.

CEN/TC 166 standardization supports quality products with a reasonable lifetime as per Directive 89/106 CEE, safety against fire and corrosion and against nuisance, indirectly contributing to CO<sub>2</sub> emission reduction and energy saving.

### **3 PARTICIPATION IN THE CEN/TC 166**

All CEN national members are entitled to nominate delegates to CEN Technical Committees and experts to Working Groups, ensuring a balance of all interested parties.

Participation as observers of recognized European or International organizations is also possible under certain conditions. To participate in the activities of this CEN/TC, please contact the national standards body in your country.

## **4 OBJECTIVES OF THE CEN/TC AND STRATEGIES FOR THEIR ACHIEVEMENT**

### **4.1 Defined objectives of the CEN/TC 166**

The scope of CEN/TC 166 is the standardization in the field of chimneys, flues used for conveying the products of combustion from combustion appliances burning a variety of fuels to outside atmosphere and the connecting flue pipes and accessories needed for their construction and operation.

Structurally independent chimneys are excluded as they are covered by CEN/TC 297.

### **4.2 Identified strategies to achieve the CEN/TCs defined objectives**

CEN/TC 166 agreed to work in English language.

CEN/TC 166 identified the need of co-ordination with TCs operating under SFG\_U: an agreement was reached in 1999 on applicability of the CPD and CEN/TC 166 standards to "combustion products evacuation ducts", and recently a list of data for the interface to be provided by manufacture of heating appliance for a correct design of the chimney was elaborated and distributed to all TCs dealing with heating appliances.

CEN/TC 166 established official liaison with CEN/TC 57, CEN/TC 88, SFG\_U, CEN/TC 109, CEN/TC 127, CEN/TC 238/WG 3, CEN TC 295 and CEN/TC 297.

CEN/TC 166 is also in liaison with the following European associations:

- European Chimneys Association (ECA), manufacturers of chimneys;
- European Federation of Chimney-Sweeps (ESCHFÖ).
- European Ceramic Industry Association (CERAME-UNIE)
- Association of the European Heating Industry (EHI)

## **5 FACTORS AFFECTING COMPLETION AND IMPLEMENTATION OF THE CEN TC 166 WORK PROGRAMME**

### **Introduction**

Standardization in the field of chimneys has been going on within the CEN for almost 20 years now. Thanks to the high involvement of the members of the CEN/TC 166, important improvements in the quality and the safety of the products have been reached and the trade barriers in the European union has disappeared.

This new Business Plan, while taking in consideration the evolution of the existing texts, offers to set ambitious goals:

- consistency of the nominative corpus;
- greater ease of use for the concerned professionals;
- consideration of the technical advancements;

TC166 will consider revision of the present BP within next 5 years; during this period the TC 166 will strictly follow the current WP.

The activity of the CEN/TC 166 is covered by the Construction Products Regulations (CPR).

## 6 INTRODUCTION TO THE WORK PROGRAMME

Chimneys consist of different components which can be assembled to form:

- system chimneys, that is installed using a combination of compatible chimney components, obtained or specified from one manufacturing source with product responsibility for the whole chimney; or
- custom-built chimneys, that is installed or built-on site in accordance with design, installation and commissioning standard, and in conformity of local laws and regulations, using a combination that may be from one or more sources.

These two types of product correspond to distinct needs and industry approaches; therefore it is appropriate to maintain two standardization policies.

One of the consequences of this distinction lies in the tests allowing categorization of those different chimneys: the system chimneys shall undergo complete testing, on the basis of the EN 13216-1; every element of the custom-built chimneys shall be tested specifically on the basis of the tests described in the products standards.

Nevertheless, the results of the different testing methods shall be consistent so that the users is able to judge the works in a comparable way, whether it is a system chimney or a custom-built chimney.

The products standards developed within the CEN/TC 166 are based on the general requirements and the fundamental performance criterions defined by the EN 1443.

This standard specifies notably the requirements in term of temperature, pressure, resistance to condensate, to corrosion, to chimney fires, and distance from combustible materials.

A revision of this basic standard will allow more precise definition of the categorization of components, systems and works, to update definitions and to take into account products that that were not previously in the standardization process, like the accessories.

The chimney categorisation must be the subject of a serious reflection about the rationalization of the different existing categories and about the consideration of new needs (accessories and notably their compatibility with the deferent types of chimneys)

## Annex A

### Standards of CEN/TC 166

(Date of occurrence: 2016-10-03)

**EN 1443:2003** 305/2011 (CPR) *supporting*  
Chimneys - General requirements

**prEN 1457-1:2016** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*  
Chimneys - Clay/ceramic flue liners - Part 1: Flue liners operating under dry conditions - Requirements and test methods

**prEN 1457-2:2016** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*  
Chimney - Clay ceramic flue liners - Part 2: Flue liners operating under wet conditions - Requirements and test methods

**EN 1806:2006** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*  
Chimneys - Clay/ceramic flue blocks for single wall chimneys - Requirements and test Methods

**EN 1856-1:2009** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*  
Chimneys - Requirements for metal chimneys - Part 1: System chimney products

**EN 1856-2:2009** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*  
Chimneys - Requirements for metal chimneys - Part 2: Metal flue liners and connecting flue pipes

**EN 1857:2010** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*  
Chimneys - Components - Concrete flue liners

**EN 1858:2008 + A1 2011** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*  
Chimneys - Components - Concrete flue blocks

**EN 1859:2009 + A1 2013** 305/2011 (CPR) *supporting*  
Chimneys - Metal chimneys - Test methods

**EN 12446:2011** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*  
Chimneys - Components - Concrete outer wall elements

**EN 13063-1:2005 + A1 2007** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*  
Chimneys - System chimneys with clay/ceramic flue liners - Part 1: Requirements and test methods for sootfire resistance

**EN 13063-2:2005 + A1 2007** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*  
Chimneys - System chimneys with clay/ceramic flue liners - Part 2: Requirements and test methods under wet conditions

**EN 13063-3:2007** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*  
Chimneys - System chimneys with clay/ceramic flue liners - Part 3: Requirements and test methods for air flue system chimneys

**EN 13069:2005** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*  
Chimneys - Clay/ceramic outer walls for system chimneys - Requirements and test Methods

**prEN 13216-1:2016** (Mandate M/447) - 305/2011 (CPR) *supporting*

Chimneys - Test methods for system chimneys - Part 1: General test methods

**EN 13384-1:2015** 305/2011 (CPR) *supporting*

Chimneys - Thermal and fluid dynamic calculation methods - Part 1: Chimneys serving one appliance

**EN 13384-2:2015** 305/2011 (CPR) *supporting*

Chimneys - Thermal and fluid dynamic calculation methods - Part 2: Chimneys serving more than one heating appliance

**EN 13384-3:2005** 305/2011 (CPR) *supporting*

Chimneys - Thermal and fluid dynamic calculation methods - Part 3: Methods for the development of diagrams and tables for chimneys serving one heating appliance

**EN 13502:2002** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*

Chimneys - Requirements and test methods for clay/ceramic flue terminals

**EN 14241-1:2013**

Chimneys - Elastomeric seals and elastomeric sealants - Material requirements and test methods - Part 1: Seals in flue liners

**EN 14297:2004**

Chimneys - Freeze-thaw resistance test method for chimney products

**EN 14471:2013 + A1 2015** 305/2011 (CPR) *Harmonised - Citation Candidate*

Chimneys - System chimneys with plastic flue liners - Requirements and test methods

**EN 14989-1:2007** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*

Chimneys - Requirements and test methods for metal chimneys and material independent air supply ducts for roomsealed heating applications - Part 1: Vertical air/flue terminals for C6-type appliances

**EN 14989-2:2007** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*

Chimneys - Requirements and test methods for metal chimneys and material independent air supply ducts for room sealed heating applications - Part 2: Flue and air supply ducts for room sealed appliances

**EN 15287-1:2007 + A1 2010**

Chimneys - Design, installation and commissioning of chimneys - Part 1: Chimneys for non-roomsealed heating appliances

**EN 15287-2:2008**

Chimneys - Design, installation and commissioning of chimneys - Part 2: Chimneys for roomsealed appliances

**prEN 16475-1** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*

Chimneys - Accessories - Part 1: Chimney silencers - Requirements and test methods

**FprEN 16475-2** (Mandates M/105, M/135) – 305/2011 (CPR) *Harmonised - Citation Candidate*

Chimneys - Accessories - Part 2: Chimney fans - Requirements and test methods

**EN 16475-3:2016** (Mandates M/105, M/135) – 305/2011 (CPR) *Harmonised - Citation Candidate*

Chimneys - Accessories - Part 3: Draught regulators, standstill opening devices and combined secondary air devices - Requirements and test methods

**prEN 16475-6** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*

Chimneys - Accessories - Part 6: Access components - Requirements and test methods

**EN 16475-7:2016** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*

Chimneys - Accessories - Part 7: Rain caps - Requirements and test methods

**EN 16497-1:2015** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*

Chimneys - Concrete System Chimneys - Part 1: Non-balanced flue applications

**FprEN 16497-2** (Mandate M/105) – 305/2011 (CPR) *Harmonised - Citation Candidate*

Chimneys - Concrete System Chimneys - Part 2: Balanced flue applications

**CEN/TS 16134:2011**

Chimney terminals - General requirements and material independent test methods

## **Projects**

WI 00166079 - Chimneys - Accessories - Part 4: Flue dampers - Requirements and test methods