

BUSINESS PLAN

CEN/TC 198

PRINTING AND PAPER MACHINERY - SAFETY

EXECUTIVE SUMMARY

The CEN/TC 198 deals with the preparation of safety-related requirements on printing machines (all printing methods, including digital printing machines used on an industrial scale), print finishing machines (including bookbinding machines), prepress equipment, paper converting, corrugated board making and converting machines, papermaking machines (including tissue machines) and paper finishing machines.

Business Environment

The majority of the well-known printing and paper technology manufacturers are domiciled in the EU. Many manufacturers of additional components and units are based here too. Printing and paper technology is exported to all regions of the world. Some of the European manufacturers have local production facilities as well (inter alia, in China, Brazil, the USA). The export ratios of the European manufacturers are very high (exports account for at least 80% of total sales of printing and paper technology).

Europe is the worldwide biggest print production site ahead of the USA and the number one as to papermaking, and, therefore, also one of the most important business markets for the technological equipment for print and paper production.

Due to the high demands on quality and productivity, innovations in printing and paper technology mostly come from European manufacturers.

The following parties involved are interested in standardization:

- Manufacturers of papermaking machines, printing machines, print converting machines and manufacturers of auxiliary units as well as control and drive solutions
- Testing institutions
- Health and safety authorities
- Market surveillance authorities
- Refitters of machines and equipment
- Papermaking companies (Paper mills)
- Printing houses

Benefits

In the course of recent years, 22 standards relating to printing and paper technology were published. The adopted standards support the machinery manufacturers in the development of products with regard to safety-related solutions. Through the application of the standards, presumption of conformity with the relevant New Approach Directives is conferred (Machinery Directive, ATEX Directive).

The standards help to create a uniform safety level in the equipment of printing companies, bookbinding companies, paper converting companies and papermaking companies.

Priorities

The goals of highest priority in the further development of the standards for safety requirements on printing and paper converting machines are the creation of a high safety level while ensuring good operability and efficiency, the international harmonization of safety requirements and the regular updating of the contents of the standards through amendments.

1 BUSINESS ENVIRONMENT OF THE CEN/TC

1.1 Description of the Business Environment

The following 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 the way the relevant standards development processes are conducted and the content of the resulting standards.

Since the economic crisis in 2008, the traditionally largest markets for printing and paper technology in West Europe and the USA have shown only a limited development, while the development of the printing and paper industry in Asia (particularly in China) has been above average.

Especially advertising and publication printing have been affected by the increasing use of electronic media, while the packaging segment has developed positively, seen on a global scale.

In the course of the last ten years, approx. one third of the European printing companies, mostly small and medium-sized companies, have vanished from the market as a result of the increasing industrialization in the printing sector (inter alia, establishment of online printing companies). At present, 3% of the printing companies in Germany make more than 40% of total sales. In companies printing on an industrial scale, smaller machines are increasingly superseded by machines with higher productivity. Large format machines often replace several smaller machines. The focus of the technological development of printing and paper converting machines is on shorter make-ready times, automation and the networking of equipment.

Since 2008, the manufacturers of printing and paper converting machines were repeatedly forced to make capacity adjustments due to the structural changes in the printing industry.

The demand for new papermaking machines has decreased strongly. Retrofits of existing equipment are above all aimed at higher production speeds.

The printing and paper sector is strongly influenced by the technological development in digital printing. The printing capacities are rising, and the digital printing machines are increasingly found in industrial environments too.

Machines which are exported to countries outside Europe must often be adjusted and/or retrofitted due to differing national requirements. These additional expenses for machinery manufacturers are estimated to be approx. 10% to 20% of the production value.

In addition to the CE conformity assessments, machinery manufacturers often commission independent testing institutions to undertake a safety-related test on the machine (e.g., a GS test for the “**G**eprüfte **S**icherheit – Tested Safety” mark). This test is carried out in accordance with the standards developed in the CEN/TC 198.

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 the actions of the CEN /TC:

The world market for printing and paper technology is subject to significant economic fluctuations. The market volume for machinery and equipment is estimated at 25 billion US\$ (VDMA estimate). The printing industry with an estimated production volume of 900 billion US\$ (2013, Smithers Pira

CEN/TC 198 Business Plan

Date: 2015-04-27

Page: 4

Forecast: Global Print Equipment Markets to 2017) is growing worldwide and profits in particular from the development in the packaging segment. By 2018, the market volume in the printing sector is expected to be approx. 980 billion US\$.

International export figures 2011 - 2013 Printing machines, paper converting machines, paper technology (VDMA statistics)

Within Europe

2011 > 5.3 billion Euro / 2012 > 5.1 billion Euro / 2013 > 4.9 billion Euro

From European countries to other countries

2011 > 11.4 billion Euro / 2012 > 11.5 billion Euro / 2013 > 10.6 billion Euro

From other countries to Europe

2011 > 6.9 billion Euro / 2012 > 6.8 billion Euro / 2013 > 6.5 billion Euro

The most important supplier countries for printing and paper technology (2011 - 2013, VDMA): Germany (28%), Italy (9%), USA (7%), Japan (7%), China (7%), Switzerland (6%).

2 BENEFITS EXPECTED FROM THE WORK OF THE CEN/TC

All standards of the CEN/TC 198 are mandated standards of the EU for safety requirements. All 22 standards that have been published have been cited in the Official Journal of the EU and confer presumption of conformity with the Machinery Directive and partly with the ATEX Directive.

The standards support the machinery manufacturers in the assessment of conformity and are an important basis for design engineers in the development of safe machines. Solutions that have proven to work in practice are anchored in the standards.

3 PARTICIPATION IN THE CEN/TC

All the 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 organization in your country.

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

4.1 Defined objectives of the CEN/TC

The aim of the CEN/TC 198 is to develop consistent standards for machinery safety of printing and paper technology.

For the printing and paper converting machinery segment, it was decided to converge the activities of the Working Groups CEN/TC 198 WG1 and ISO/TC 130 WG5 "Safety and Ergonomics" and to develop an internationally harmonized EN ISO standard.

The EN 1034 series for papermaking and paper finishing machines shall be supplemented with standards for important machines for papermaking factories that are still lacking. The existing standards of EN 1034 shall be brought up to date from 2015 onwards.

The EN 13023 for noise measurement will be revised from the end of 2015 onwards.

Another aim is to achieve that countries outside Europe also implement the EN ISO 12643 standards after publication as part of their national body of standards. In this way, country-specific adjustments of machines can be avoided, trade barriers can be reduced and a uniform protection level can be ensured worldwide.

4.2 Identified strategies to achieve the CEN/TC.s defined objectives.

The further development of the standards for printing and paper converting machines is based on the existing ISO 12643 series (ISO/TC 130 WG5) which corresponds to a large extent with the EN-1010 series as far as scope of application and contents are concerned. At present, the Parts 1 to 4 are up-dated and harmonized at European and ISO level in a parallel process within the scope of the Vienna Agreement (ISO Lead). In the revision, care is taken that all relevant contents of the EN 1010 are included in the newly developed EN ISO 12643. This also concerns the requirements for converting equipment and systems. After publication of the EN ISO 12643 series (probably at the end of 2016), the standards of the EN 1010 series shall be withdrawn with a two-year transitional period. The amendment to EN 1010-5 has been in the coordination phase since 2010 and the standard shall be published as a harmonized standard at the end of 2015. It is, at the same time, the basis of the future EN ISO 12643-5.

In order to avoid double work, experts of the CEN members are motivated to take an active part in the ISO meetings as well.

4.3 Environmental aspects

The standards of the CEN/TC 198 deal with health and safety aspects. Environmental aspects are not part of the standards. Selected environmental aspects are addressed indirectly if they are also relevant for product safety, inter alia, noise emission values, protection against radiation, reduction of emissions. Environmental aspects for printing and paper are dealt with in Working Group 11 of the ISO/TC 130.

5 FACTORS AFFECTING COMPLETION AND IMPLEMENTATION OF THE CEN/TC WORK PROGRAMME

Due to the far-reaching changes in the printing and paper industry and the structural changes in the supplier industry that come with them, less resources are available from the industry for the standardization work at present. This causes delays in the standardization projects.