



Rev. 0

EPERC Newsletter

European Pressure Equipment
Research Council

Number: 1
June 12, 2017

Welcome from the Chairman

A new Board of Directors has been elected during the last EPERC General Assembly in Roma last April 10, 2017. A "renaissance" of this EPERC Association has been decided by the new board in order to support needs, innovation and competitiveness of the European Pressure Equipment Industry. The major objectives of EPERC is to manage and support R&D to answer different questions, as:

- what are the gaps and needs in Pressure Equipment Industries? In particular the new needs associated to "renewable" and "innovation"?
- what are the differences with other international similar Codes? What's the background and justification of these differences? What's the situation of Pressure Equipment EN Standards versus new needs?
- how to support European Pressure Equipment Industry? How to develop R&D on Pressure Equipment for this large Industry?

The major orientation is to work with the key actors, like EU, including JRC, like EIT, like CEN including all the Pressure Equipment Technical Committees, with European Companies concerned by Pressure Equipment, to develop, to share and to manage R&D projects, in order to propose improvements of European Codes & Standards to guarantee knowledge transfer, innovation and competitiveness. All interesting parties from any EU country, concerned with Pressure Equipment, are welcome to contribute, to shear experience, to ask questions or to make suggestions for areas that need development.

In addition to this basic activities, EPERC will be in touched with similar organizations in the world like USA, Japan, Korea, India, China... to promote the EU Pressure Equipment Industry.

EPERC Chairman
Claude Faidy

EPERC Mission, Aims and Objectives

Mission: Co-ordinate, develop and promote the common technical interests and strategies of European industry with regard to pressure equipment through:

- a) research in relation to the international context and European institutions,

- b) exchange of industry experience in design, fabrication, use, inspection, monitoring, safe life assessment etc.,

- c) influencing the Codes and Standards by providing industry and research information, data and rules.

Aims: Safeguard and represent the technical and economic interests of industries in Europe that rely on pressure equipment; facilitate the free trade of pressure equipment and common in-service requirements across borders at international and European level through harmonization of standards and legislation, acceptance tests and recommended practices; promote and encourage collaboration and co-operation through research and exchange of industry experience among the EPERC Stakeholders (Members) with an interest in the design-manufacture and use of pressure equipment for innovation and competitiveness improvement projects.

Objectives: Identify the needs for research and innovation and make pressure vessel industry safer, innovative and competitive through the exchange of industry experience and dedicated Technical Task Groups; establish priorities, timescales, scope and funding requirements; launch joint research and collaborative programmes and activities based on identified needs; support the implementation of the joint projects, collaborative programmes and activities; disseminate research results and industry experience, including through the medium of e-learning, and facilitate the transfer of technology into practice; assist and advise authorities involved with legislation, standards and other issues concerning pressure equipment at a European level.

EPERC strategy

- increase the to-day number and diversity of members
- increase number of EU countries involved
- remain closely in touched with EU organization: EC, EIT, JRC, CEN and all Pressure Equipment Technical Committee
- increase number of topics to be considered for R&D programmes and European Codes & Standards improvements
- basic work is attached to Thematic Task Groups with a dedicated technical program (chart) and results and reports release
- regular thematic Technical Seminars, 1 to 3 days, open to members and visitors, minimum every 6 months

- EPERC International Conference, minimum every 2 years, 3 or 4 days, to exchange at the International level on State of the Art in Pressure Equipment Technology, to confirm gaps and needs, to promote European Pressure Equipment Industry, to compare existing international Codes & Standards
- EPERC is thinking in training courses, master classes, summer school proposals on different aspects of Pressure Equipment
- Communication and Documentation: major exchanges will be done through EPERC website:

www.eperc-aisbl.eu

but the number of face to face meetings will be limited using in priority phone call conference or web-seminars as alternatives

- All the historical and new EPERC Reports will be on the website very soon; all other reports from any member could be on the website too, after BOD agreement.

EPERC Organization & Activities

Chairman & Board of Directors (BOD) Members	Communication, Documentation and website
Thematic Task Group (TG) 1 to 10... with a TG Chairman, a group of members, a chart and a list of potential R&D projects	
Periodic EPERC Seminars : - around each existing active TG - or around New Potential Topics - and Intermediate TG meetings between Seminars at the TG Chairman Initiative	
International EPERC Conference on present and future EPERC Pressure Equipment Technical Activities	

EPERC Task groups running

- **Fatigue** in connection with EN13445 for vessel first, and after with EN13480 for Piping systems
- **Non Destructive Test** as alternative to hydro proof tests

EPERC Task groups to be shortly launched

- **Welding**
- **EN13445 Background:** Updated version
- **In series produced pressure equipment**
- **Bolted Flange:** starting by innovative bolted flange
- **Creep**

EPERC Potential R&D Task Groups

- to be discussed with CEN Technical committees
- Vessel design rules in connection with TC 54
- Piping design rules in connection with TC 267
- Piping system design rules under high level loads
- Hydrogen PE
- High pressure PE
- High temperature PE

- Cryogenic PE
 - Non-metallic PE: composite and HDPE
 - Non-steel PE: aluminum, copper...
 - Non-linear design rules of PE
 - Fitness for Service and Risk Based Decision making
 - Flaw evaluation rules
 - New materials for new PE application, High Pressure/High or Very Low Temperature, hydrogen environment...
 - New NDE Techniques
 - New welding techniques and heat treatment requirements
 - Repair technology for PE in operation
 - Many other proposals are possible...
- Any actors or interesting EU parties are welcome for any exchange with EPERC Association, refer to EPERC website

Upcoming Events

- next **Seminar 1:**
 - o Title: "Fitness for Service and Risk Based Inspection"
 - o Lead organizer: TBD
 - o Location: MPA Stuttgart, Germany
 - o Date: November 8-9, 2017
 - o **Save the date** and connect to EPERC website for detailed program and call for presentation
- next **Seminar 2:**
 - o Title: "Design Rules and Flaw Evaluation"
 - o Lead organizer: John Wintle
 - o Location: Strathclyde University, Glasgow, UK
 - o Date: TBD, before end 2017
 - o Connect to EPERC website for detailed program and call for presentation
- **first EPERC International Conference:**
 - o Title: "Pressure Equipment- Innovation – Competitiveness- Renewable- Design, Construction- Operation "
 - o Lead organizer: Andrea Tonti with all the BOD and TG Chairmen support
 - o Location: Roma, Italy
 - o Date: November 12-16, 2018
 - o **Save the date** and connect to EPERC website for detailed program and call for presentation
- In parallel, many existing or new **Task Group (TG) meetings** can be organized in accordance with the TG chairman agreement
 - o connect to EPERC website for detailed program

Some Links

- ec.europa.eu/programmes/horizon2020
- eit.europa.eu

How to contact us?

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For Information (to be updated):
Pressure Equipment EN Standards

MATERIALS

EN 10028 - Flat products made of steels for pressure purposes
EN 10216 - Seamless steel tube for pressure purposes
EN 10217 - Welded steel tube for pressure purposes
EN 10222 - Steel forgings for pressure purposes

PERMANENT JOINING

EN ISO 9606 - Approval testing of welders – Fusion welding
EN ISO 15614 - Specification and qualification of welding procedures for metallic materials

PRODUCTS

EN 286 - Simple pressure vessels
EN 378 - Refrigerating systems and heat pumps – Safety and environmental requirements
EN ISO 4126 - Safety devices for protection against excessive pressure
EN 12516 - Industrial valves – shell design strength
EN 12952 - Water tube boilers
EN 12953 - Shell boilers
EN 13445 - Unfired pressure vessels
EN 13480 - Industrial piping
EN 14276 - Pressure equipment for refrigerating systems and heat pumps
EN 13458 - Cryogenic vessels – Static vacuum insulated vessels

CEN Pressure Equipment Technical Committees

CEN/TC 23 - Transportable gas cylinders
CEN/TC 47 - Atomizing oil burners and their components - Function - Safety - testing
CEN/TC 54 - Unfired pressure vessels
CEN/TC 57 - Central heating boilers
CEN/TC 58 - Safety and control devices for gas burners and gas-burning appliances
CEN/TC 69 - Industrial valves
CEN/TC 70 - Manual means of fire fighting equipment
CEN/TC 74 - Flanges and their joints
CEN/TC 79 - Respiratory protective devices
CEN/TC 121 - Welding
CEN/TC 131 - Gas burners using fans
CEN/TC 132 - Aluminium and aluminium alloys
CEN/TC 133 - Copper and copper alloys
CEN/TC 138 - Non-destructive testing
CEN/TC 155 - Plastics piping systems and ducting systems
CEN/TC 182 - Refrigerating systems, safety and environmental requirements
CEN/TC 185 - Fasteners
CEN/TC 190 - Foundry technology
CEN/TC 194 - Utensils in contact with food
CEN/TC 210 - GRP tanks and vessels
CEN/TC 234 - Gas infrastructure
CEN/TC 235 - Gas pressure regulators and associated safety devices for use in gas transmission and distribution
CEN/TC 237 - Gas meters
CEN/TC 267 - Industrial piping and pipelines
CEN/TC 268 - Cryogenic vessels
CEN/TC 269 - Shell and water-tube boilers
CEN/TC 286 - Liquefied petroleum gas equipment and accessories
CEN/TC 326 - Gas supply for Natural Gas Vehicles (NVG)
CEN/TC 342 - Metal hoses, hose assemblies, bellows and expansion joints