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50 Proceedings of the Twenty-Seventh International Pump Users Symposium

September 12-15, 2011, Houston, Texas

## ISO 13709 2nd Edition/ API 610 Eleventh Edition Highlights

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This paper varies in style from other published papers due to the need to incorporate actual or slightly edited wording from the ISO/API standard document. It is composed on the basis that the reader has purchased a copy of the ISO/API standard and the supporting data sheet program and may use this paper for supplemental information.

## ABSTRACT

International standard ISO 13709:2009 (Identical), ANSI/API Standard 610: September 2010 "Centrifugal Pumps for Petroleum, Petrochemical and Natural Gas Industries" also referred to as ISO 13709 Second Edition / API Eleventh Edition has been updated from its previous ISO 13709 1<sup>st</sup> Edition/ API 610 10<sup>th</sup> Edition.

This tutorial addresses the background process in how the document was updated along with indicating the participating companies who contributed to this work. The majority of this paper is focused on addressing the "significant" changes as well as "other' changes that are of particular interest to the reader in understanding changes from the previous ISO/API editions. Included is the background reasoning behind each change. Insight into subject matter for future updates to ISO 13709/ API 610 will be addressed at the end.

One area of particular interest is the data sheet program which has been improved and significantly enhanced to become a guide for engineering contractors, end users and pump manufacturers alike for accurately specifying equipment requirements. A special thank you is extended to the late Anthony (Tony) Semple of Bechtel for his hours of dedication to produce this data sheet program.

## INTRODUCTION

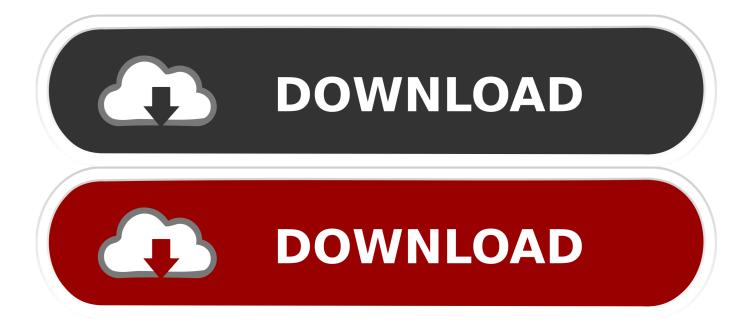
The American Petroleum Institute (API) publication "Centrifugal Pumps for Petroleum, Petrochemical and Natural Gas Industries, 10<sup>th</sup> Edition, October 2004" has been updated to the 11<sup>th</sup> Edition. The 11<sup>th</sup> Edition is identical to ISO 13709, 2009 (Identical) Centrifugal Pumps for Petroleum, Petrochemical and Natural Gas Industries, Second Edition". The process of publishing identical API and ISO standards is called "co-branding".

The 9<sup>th</sup> Edition of 610 and the first Edition of ISO 13709 were also identical. The two documents were submitted separately for ISO Final Draft International Specification and API ballots. After successfully passing both ballots ISO edited 13709. Even though ISO editors had previously looked at the document, they identified a large number of editorial changes. This resulted in the need to add a lengthy errata to 610 9<sup>th</sup> Edition. This would have made 610 very inconvenient to use. One would find a requirement in the text and then go to the errata to check for a change. Since the number of editorial changes was so large it was decided to incorporate the changes into the text and reissue it as the 10<sup>th</sup> Edition in October of 2004. This is why the 10<sup>th</sup> Edition came out so soon after the 9<sup>th</sup>. Technically the 9<sup>th</sup> and 10<sup>th</sup> Editions are identical just with only minor word differences. If a pump is purchased to either the 9<sup>th</sup> or 10<sup>th</sup> it should be the same pump. The 10<sup>th</sup> Edition is identical to ISO 13709 1<sup>st</sup>.

The 9<sup>th</sup> Edition of 610 and 1<sup>st</sup> Edition of 13709 were complete technically in 2002. It took 2 years from the time that 6109<sup>th</sup> and 13709 1<sup>st</sup> were technically complete until they were published. By that time the taskforce/working group had reformed and begun work on the 11<sup>th</sup> Edition of 610/2<sup>st</sup> Edition of 13709. This was in mid 2004. Note: API calls groups that work on standards "taskforces" whereas ISO calls them "working groups". For the rest of this paper, they will be referred to as WG.

One of the difficulties in co-branding standards is that they must go through two parallel voting processes. In API, comments are allowed on all ballots. In ISO, comments are allowed on Committee Draft and Draft International Specification (DIS) Ballots. Technical comments are not allowed on Final Draft International Specification FDIS) ballots. If documents are allowed to be balloted separately, the WG must resolve comments at least twice as many times. In preparing the 11<sup>th</sup> Edition of 610, all ballots were simultaneous and it was only necessary to resolve comments once after the DIS. The DIS went out for ballot in November of 2005. On 10 April 2006 the ballot closed and the WG received sixty pages of comments. These were duly resolved and presented to the API Subcommittee on Mechanical Equipment in San Francisco in October of 2006. In light of the large number of comments it

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