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More than 60 years ago the first patent for the LD process was filled. In short time, this technology became the standard for efficient converter steelmaking. Nowadays vessel sizes with a content of up to 400 ton of liquid steel and an annual production of more than 4 million tons are in operation.

Experience showed that for the increased vessel sizes best solution is to use a suspension system that connects the hot vessel with the relative cold trunnion ring. The suspension system has to hold the converter within the trunnion ring in all operating conditions and all converter positions while on the other hand allowing for thermal expansion of the vessel and free bending of the trunnion ring - for large converters this deformations sum up to several centimeters.

Numerous technical solutions for converter suspension have been developed but only a few of them have been proven to be capable to withstand the rough operating conditions in a steel plant. One of these well proven solutions is the SIMETAL Conlink converter suspension system. It went in operation the first time in 1997, and is now installed on more than 70 converters of various sizes all over the world. The system is based on link elements that carry spherical plain bearings on both ends. The links are placed in a way that the vessel is free to deform and the trunnion ring bending is completely unrestricted. This way pre stresses due to thermal deformation or creep is completely eliminated.

The SIMETAL Conlink system was further improved, making the system more compact, easier for repair and even more robust. A series of customer interviews and inspection has been carried out and all the feedback was integrated during this latest developments.

In the paper a brief history of LD steel making and solutions for converter suspensions is given, followed by comprehensive feedback gained during 15 years of operation of Conlink systems. Finally the latest development stage of the suspension system is presented.

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