

Fiber Optic Splicing System

ABSTRACT

An enclosure system for enclosing a fiber optics splicer so that the fiber optic splicer can be used in hazardous area is disclosed. The enclosure system comprises of an enclosure wherein the top side of the enclosure is adapted to become door of the enclosure and a purging unit connected to the enclosure for performing pressure purging within the enclosure system, wherein the purging unit comprises a pressure purge unit, an air-pumping device, and pressure gauges. A fusion splicer and fiber optic cables to be spliced are installed inside the enclosure and the top side of the enclosure is locked and sealed using a sealing unit. The sealing unit is made of soft materials that conforms around the fiber optic cables to be spliced, hence do not damage the fiber optic cables. Using the purging unit of the enclosure system, flammable gas inside the fiber optics enclosure system is displaced with non-flammable air or inert gas. During splicing, the enclosure system also maintains positive pressure inside the enclosure, hence preventing any flammable gas from entering the enclosure. With the enclosure system, splicing of fiber optics can be done safely, even in a hazardous area, using the fusion splicer installed in the enclosure system. A method utilizing the enclosure system for splicing of fiber optics is also disclosed herein.

(Fig. 2)