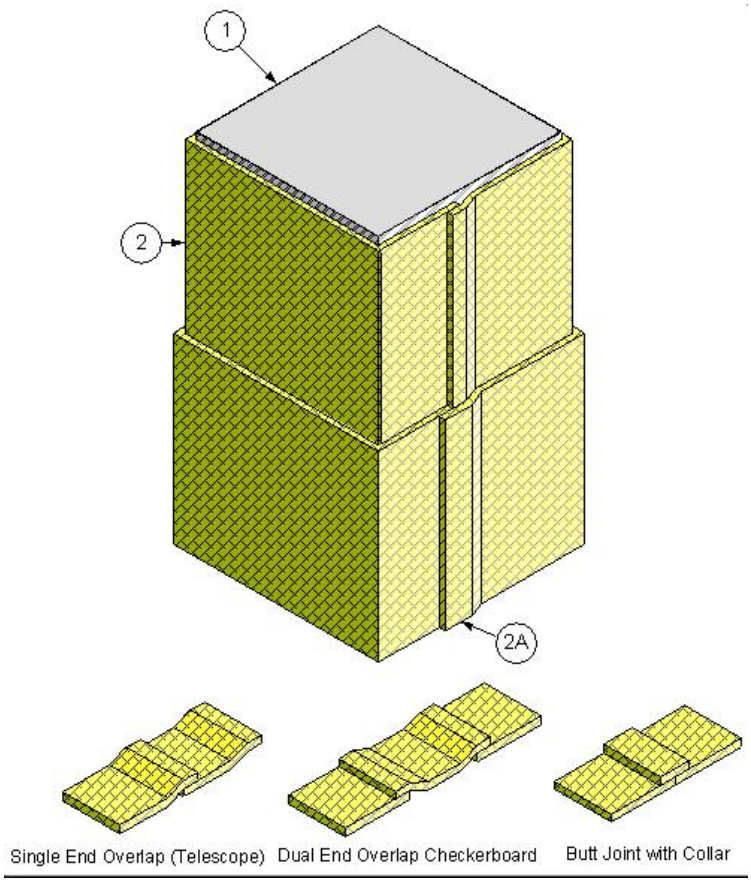
**Design No. UNI/FRD 120-15**

**OPL Design VAD 560F**

**VENTILATION AIR DUCT**

**Unifrax I LLC**
**FyreWrap® Duct Insulations**

**ISO 6944 (2008) Type A Duct**
**Stability – 2 hr**
**Insulation – 2 hr**
**Integrity – 2 hr**




1. VENTILATION DUCT: An airtight duct system with vertical duct sections constructed of min. 26 GA (0.0179 in.) plain sheet steel with a max. 1296-in. area and a max. 54-in. width (max. 24-in. high x max. 54-in. wide). When required, equip the duct with a field fabricated access door. Construct the duct using sections affixed to each other with seams.

   Reinforce the duct to IMC or SMACNA requirements designed for a 2-in. WC under pressure and to carry the weight of the ventilation duct assembly covered with insulation under a fire load equivalent to ISO 834 time-temperature curve.

   Protect the annular space around the duct passing through a fire rated barrier with the penetration firestop system as detailed in Design FS 599 F.

2. CERTIFIED MANUFACTURER: Unifrax I LLC --

   CERTIFIED PRODUCT:Insulation Blanket (Soluble Fiber)

   MODEL: FyreWrap® Elite™ 1.5 Duct Insulation, 6pcf

   MODEL: FyreWrap® EZ 1.5 Duct Insulation, 6pcf

   MODEL: FyreWrap® 1.5 Duct Insulation, 8pcf

   MODEL: FyreWrap® MAX 2.0 Duct Insulation, 8pcf

   INSULATION: Use nom. 1-1/2-in. thick, 6-pcf (FyreWrap® Elite™ 1.5 or FyreWrap® EZ 1.5), 1-1/2-in. thick, 8-pcf (FyreWrap® 1.5), or nom. 2 in. 8pcf (FyreWrap® MAX 2.0) blanket made of soluble amorphous wool fibers or calcium magnesium silica fibers. Wrap the steel duct with one layer of duct wrap. Use blanket that is fully encapsulated or single faced. Expose the faced side of fully encapsulated or single faced blanket to view on outer layer. All joints were overlapped a min of 3 in. (Item 2A). Completely cover and seal all cut edges with pressure-sensitive aluminum foil tape. Reference Product Section of the Directory for more details.

3. FASTENERS: (Not Shown) Prior to installing the insulation blanket, weld with 5 in. long, 12 GA. copper coated mild steel impaling pins to duct. To provide adequate support, place pins on the vertical sides of the duct. Place pins in rows and columns across the duct a maximum of 3 in. from the vertical edges. Space the vertical columns of pins a max. 12 in. O.C. Space horizontal rows of pins a max. 10-1/2 in. O.C. At changes in directions, such as going from horizontal to vertical, locate pins to facilitate attachment of insulation blanket (Item 2) to duct. Pins shall be located at all overlaps to secure both pieces of the insulation blanket. Locate additional pins, if necessary, to attach insulation blanket at overlaps. After placing insulation blanket (Item 2) over pins, secure blanket to pins with 2-1/2 in. square or round galvanized steel speed clips. Turn down or cut off insulation blanket pins that extend beyond the outer blanket wrap layer.

4. SUPPORTS: (Not Shown) After the installation of the insulation blanket (Item 2) is complete, add a typical support system as required by IMC or SMACNA requirements that will support the load of the ventilation duct and the additional weight of the insulation system under a fire load.