

**Hose and Hose Connections**  
**Oxy-fuel gas**  
**Welding and cutting**  
1/30/2012

**(10) 437-003-3350Hose and Hose Connections**

(a) When using fuel gas and oxygen hoses you must:

(A) Use hoses that comply with the Specification for Rubber Welding Hose, 1958, Compressed Gas Association and Rubber Manufacturers Association. 253(e)(5)(i)

**Comment [cnw1]:** Check that reference is current

(B) Use fuel gas and oxygen hoses that are easily distinguishable from each other. 350(f)(1)

NOTE: The contrast may be made by different colors or by surface characteristics readily distinguishable by the sense of touch.

(C) Use "Grade R or RM" hose for acetylene only. Do not use with any other fuel gas.

(D) Use "Grade T" hose for most fuel gases to include acetylene.

(E) Use oil free air or an oil free inert gas to test hoses. 253(e)(5)(iv)

(F) Keep hoses and couplings (connectors) free from oily or greasy substances 253(b)(5)(i), 350(e)(3)

(G) Prior to use at the beginning of each working shift, visually inspect each hose for leaks, burns, worn places, bulges, cracks, crimps, multiple splices, cuts, oil and grease, damaged or worn fittings, and other defects rendering it unfit for service. 253(e)(5)(v) & 350(f)(3)

(i) At the beginning of each task, the portion of hose intended for use or

(ii) At the end of each working shift, the portion of hose used before storing it on a cart or hose reel

(H) Pull out and visually check the entire length of -reel hoses at least once per monthquarterly.

(I) Perform inspections on hoses and hose connections following any failed drop test.

(J) Test hose to twice the normal pressure it will be subjected to, but in no case less than 300 psi. when it: 350(f)(4)

(i) Has been subject to flashback, or 350(f)(4)

(ii) Shows evidence of severe wear or damage. 350(f)(4)

(K) Repair or replace hoses that have defects rendering them unfit for service.  
253(e)(5)(v) & 350(f)(4)

(L) Protect hoses from damage by physical hazards, hot objects, or kinking. 437-002-0295

(M) Keep hoses, cables, and other equipment clear of passageways, ladders and stairs. 350(f)(7)

(N) Use manifold hose connections, including both ends of the supply hose that leads to the manifold that can not be interchanged that are not interchangeable on all ends..between oxygen and fuel gas manifold and supply header connection.  
350(e)(3)

(O) Cap manifold and header hose connections when not in used. 350(e)(4)

(b) When using fuel gas and oxygen hoses you must not:

(A-) Route in such a manner that severely bends the hose at the hose coupling (connector).

(B) Pull or drag welding equipment with the hose assembly.

(C) Drag or rest hoses on material that are not fully cooled.

(D) Drag hoses across potential puncture or abrading points.

(E) Handle oxygen hoses with oily hands or oily gloves.

(F) Hang a torch from any hose.

(G) Cover more than 4 inches out of 12 inches when parallel sections of oxygen and fuel gas hose are taped together. 253(e)(5)(ii)

(H) Use a single hose having more than one gas passage. 350(f)(1)

(I) Repair damaged hoses with tape. 437-002-0295

| (J) Use defective hose, or hose in doubtful condition. 350(f)(4)

(c) Hose connections must:

(A) Comply with the Standard Hose Connection Specifications, 1957, Compressed Gas Association. 253(e)(5)(iii)

Comment [cnw2]: Correct?

(B) Clamp or securely fasten in a manner that will withstand twice the pressure to which they are normally subjected, and in no case less than a pressure of 300psi, without leakage.. 253(e)(5)(iv)

(C) Use oxygen and fuel gas connection fittings that are different in size and prevent the intermixing of connections, or 437-002-0296

(D) Be marked in a manner to identify the oxygen and fuel gas hose. 437-002-0296

(E) Use hose couplings that cannot be unlocked or disconnected by means of a straight pull without rotary motion. 350(f)(5)

(F) Ventilate boxes used for storage of gas hose. 350(f)(6)

(d) When using hose connections you must not use adaptors that permit the interchange of manifold hose connections, 350(e)(3)