

# Membrane Element Upgrade

## Replacement of Obsolete 7001-G501 Membrane with Upgraded 7001-G501 Membrane in 6995 Dehydrators

### I. Secure and tag out the dehydrator.

#### WARNING

The unit contains air pressure up to 125 psig. Failure to remove this pressure before beginning work could lead to death or injury to the worker.

- a. Close the inlet air valve and the outlet air valve, external to the dehydrator. This isolates the unit from its air source. Secure and tag out the air lines, external to the unit.
- b. Secure the electrical power source to the dehydrator and tag it out.
- c. Air pressure will bleed away through the purge system. Do not proceed until the pressure gauge reads zero.

### II. Remove the existing membrane assemblies.

#### NOTE

Existing membrane components are shown in red in Figure 1.

- a. Disconnect the membrane inlet fitting (Figure 1, 1) from the inlet manifold.
- b. Disconnect the membrane outlet fitting (2) from the outlet manifold.
- c. Disconnect the membrane purge fitting (3) from the purge manifold.
- d. Loosen the hold-down clamp (4).
- e. Remove the clamps (5) securing the membrane assembly (6) to its mounting saddles (7) and (8). Remove the membrane assembly.
- f. Repeat for the other two or three membrane assemblies.

### III. Install the new membrane assemblies.

#### NOTE

Replacement membrane components are shown in green in Figure 1.

- a. Remove the bottom mounting saddle (8) and reverse it as shown to fit the new membrane assembly.
- b. Install the new membrane assembly (9) in its saddles, using the new mounting clamps (10) included with the membrane. Leave the clamps a little loose until the tubing connections are made.

#### CAUTION

To ensure a good seal while preventing damage to the membrane elements, use only a light coat of silicone grease MIL-S-8660C on all piping O-rings.

- c. Reconnect the purge fitting, using the new -011 O-ring (11) included with the membrane, lightly lubricated.
- d. Reconnect the inlet and outlet fittings, using the new -015 O-rings (12) included with the membrane, lightly lubricated.
- e. Slide the hold-down clamp (4) snug against the top of the membrane assembly and tighten it.
- f. Tighten the clamps (10) to secure the membrane assembly to the mounting saddles.
- g. Repeat for the other two or three membrane assemblies.

### III. Restart the unit.

- a. Start the dehydrator in accordance with Chapter 2 of the technical manual, NAVSEA S9514-C7-MMA-010. Observe all precautions.
- b. If any aspect of startup or operation is not as described, troubleshoot in accordance with the technical manual.

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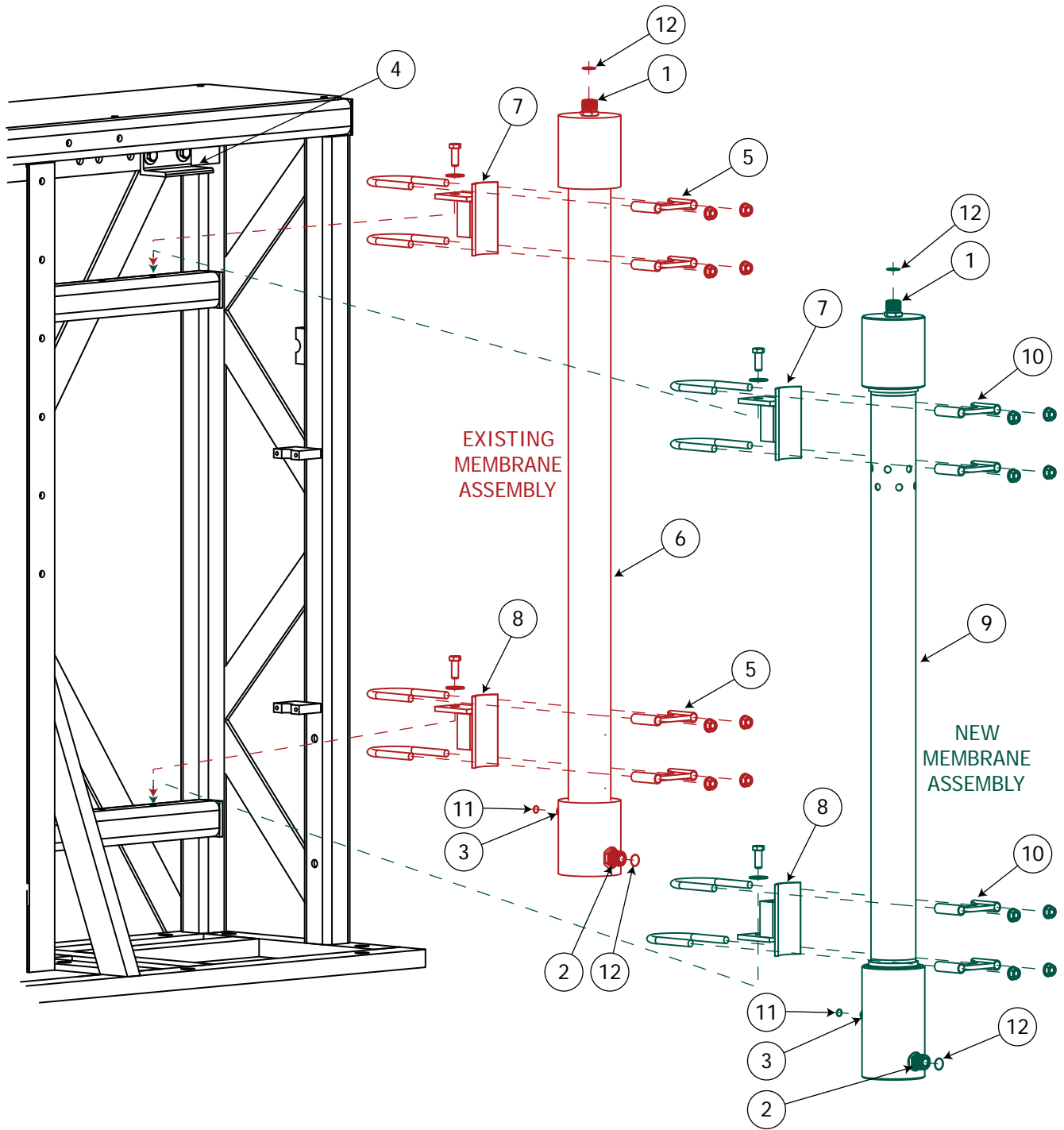


Figure 1. Membrane Element Replacement