



Figure 9-35. Assembly of MS fitting to flexible hose.



Figure 9-36. MS-type end fitting.

Flexible Hose Testing

All flexible hose must be proof-tested after assembly and applying pressure to the inside of the hose assembly. The proof-test medium may be a liquid or gas. For example, hydraulic, fuel, and oil lines are generally tested using hydraulic oil or water, whereas air or instrument lines are tested with dry, oil-free air or nitrogen. When testing with a liquid, all trapped air is bled from the assembly prior to tightening the cap or plug. Hose tests, using a gas, are conducted underwater. In all cases, follow the hose manufacturer's instructions for proof-test pressure and fluid to be used when testing a specific hose assembly. [Figure 9-37]

When a flexible hose has been repaired or overhauled using existing hardware and new hose material, and before the hose is installed on the aircraft, it is recommended that the hose be tested to at least 1.5 system pressure. A hydraulic hose burst test stand is used for testing flexible hose. [Figure 9-38] A new hose can be operationally checked after it is installed in the aircraft using system pressure.

Size Designations

Hose is also designated by a dash number according to its size. The dash number is stenciled on the side of the hose and indicates the size tubing with which the hose is compatible. It does not denote inside or outside diameter. When the dash number of the hose corresponds with the dash number of the tubing, the proper size hose is being used. [Figure 9-33]

Hose Fittings

Flexible hose may be equipped with either swaged fittings or detachable fittings, or they may be used with beads and hose clamps. Hoses equipped with swaged fittings are ordered by correct length from the manufacturer and ordinarily cannot be assembled by the mechanic. They are swaged and tested at the factory and are equipped with standard fittings. The detachable fittings used on flexible hoses may be detached and reused if they are not damaged; otherwise, new fittings must be used. [Figure 9-39]

Installation of Flexible Hose Assemblies

Slack

Hose assemblies must not be installed in a manner that causes a mechanical load on the hose. When installing flexible hose, provide slack or bend in the hose line from 5 to 8 percent of its total length to provide for changes in length that occurs when pressure is applied. Flexible hose contracts in length and expands in diameter when pressurized. Protect all flexible hoses from excessive temperatures, either by locating the lines so they are not affected or by installing shrouds around them.