

Recommended Cleaning Procedures

Hose

When hydraulic hose is cut with metal-blade saws or abrasive wheels, tremendous heat is generated, causing rubber and metal particle and dust contaminants to stick to the hose or tube as they cool. It is vitally important to clean the hose immediately after the cutting process to avoid this. Fire one projectile in each direction through the length of the hose prior to installation of end connections. This will allow cleaning in the areas occupied by the insertion of the hose nozzle at either end. After crimping or swaging fittings, an Ultra Clean projectile should be fired through the entire hose assembly to remove metal flash. It is vital to apply Clean Seal Capsules to hose ends immediately after cleaning to avoid recontamination, and to protect hose threads.

Hydraulic Hose - Internal/External Skive

Before skiving, two (UC) Ultra Clean projectiles should be fired in each direction through the hose. If a mandrel is inserted into the ID of the hoses or tube for skiving purposes, the mandrel and mandrel lubricants must be clean and contamination free. It may be necessary to fire one or two UC or Tube Style Projectiles through the hose after the internal skiving process to remove rubber particles and lubricants. A custom Hose Nozzle to occupy the skived area may be necessary to achieve a higher level of cleanliness. After crimping or swaging fittings, a (UC) Ultra Clean Projectile should be fired through the entire hose assembly to remove metal flash. It is vital to apply Clean Seal Capsules to end fittings immediately following the last projectile to avoid recontamination, and to protect hose threads.

Used Hose & Tube Assemblies

Hydraulic hose and tube assemblies from systems that have experienced a failure need to have all contaminated oil removed. Disconnect each end of the assembly and secure one end into the Projectile Catcher (UC-PC). Fire air into the assembly without a projectile for several seconds to remove the excess contaminated hydraulic fluid. Fire 3 to 4 Ultra Clean Projectiles through assembly to remove particulates. Visibly check the last projectile for contamination. Repeat process until projectile has no signs of rubber or metallic particles on it. If the projectiles continue to show particles the hose may need to be replaced. This is a sign of a rubber tube that is failing.

Tube

When tubing requires cutting, the ends should be thoroughly deburred prior to use of the cleaning system. A tube nozzle and two Ultra Clean projectiles should be used to clean the tube. If the tube contains rust, weld slag or other corrosion inside, an abrasive projectile should be used first and as many times as necessary to remove the corrosion. Follow with an Ultra Clean projectile to insure proper cleanliness. If flaring is required, do so prior to cleaning. The use of a JIC nozzle is necessary to mate properly with a flared tubing end. If special fittings are used that require crimping, the use of an Ultra Clean projectile, in addition to the procedure described above, is recommended after the assembly is complete. The tube-style projectile should be used to remove mandrel lubricants, grease or oil if encountered. Tube-style projectiles are also recommended for stainless steel tubing.

Pipe

We recommend the Ultra Clean Scrub Projectile when rust is present, or an Abrasive Projectile for cleaning the inside of all types of carbon steel piping products. These projectiles may be used more than once if necessary, or until they wear out. After several passes with the Scrub or Abrasive Projectiles, an Ultra Clean Projectile should be fired through the pipe, removing debris left behind by previous projectiles. This can only be accomplished if the pipe has a relatively smooth surface. Our Scrub Projectiles will negotiate sweep elbows only. The Ultra Clean Projectile can also be soaked in corrosion inhibiting chemicals, effectively applying them 360 degrees to the inside surface as the projectile passes from one end to the other.

The Ultra Clean UC-D1 Super-Dry Compressed Air Dryer is recommended for all cleaning procedures. This ensures that only clean, dry air is used to move projectiles through the hose, avoiding re-contamination from air particulates. See page 25 for details.