Cham*Flex*® Fire Retardant Hose Assemblies Installation Instructions

A) All applications should be checked to ensure that the proper hose assembly lengths are being installed:

- Hose assemblies should not be installed in a "stretched" (taut) fashion. Some expansion and contraction of the hose assembly can occur due to temperature variation, system pressures, and system cycling (see Figure #1).
- All hose assemblies should be routed properly to avoid contact with other surfaces that could possibly cause "chafing" (abrasion of the wire braided reinforcement).
- The use of elbows and adapters should be considered to relieve hose "strain" (see Figure #2). **Do not use any plastic fittings or adapters.**
- Hose assemblies should not be "bent" past the minimum bend radius requirements listed in the chart below. Hose assemblies showing evidence of "kinking" (being bent beyond the recommended bend radius) should not be installed (see Figure #3).

Assembly Specs.	Cham*Flex*® Hose 1/2"	Cham*Flex*® Hose 3/4"	Cham*Flex*® Hose 1"	Cham*Flex*® Hose 1 1/4"
Working Pressure	400 PSI	400 PSI	500 PSI	400 PSI
Minimum Burst at Ambient Temp. (70°)	1600 PSI	1600 PSI	2000 PSI	1600 PSI
Minimum Bend Radius	2.5"	4"	5.5"	10"
Hose OD (approximate)	.700	.975	1.245	1.58
Temperature Range	-40° F to 212° F	-40° F to 212° F	-40° F to 212° F	-40° F to 212° F

B) All hose assemblies should be installed in the following fashion so that no "twisting" occurs:

- Solid male pipe thread (NPT) ends should be installed first unless they are being connected to a "swivel" female (NPT). *The entire hose assembly must rotate during the tightening of this connection in order to avoid hose tube damage.*
- The flared adapter on the "union" (female swivel) end should be removed with the male pipe (NPT) end of the adapter connected to the appropriate port first.

CAUTION: Thread sealant or thread tape should not be used on "flared" connections. Additional thread sealant or thread tape should not be applied to male pipe thread (NPT) ends where factory installed thread sealant is already present.

- The last step is to reconnect the flared swivel female coupling to the flared end of the adapter in a manner that ensures that the hose assembly is not twisted (see Figure #4).

FIGURE 1 — HOSE AND MACHINE TOLERANCES

FIGURE 2 — ELBOWS AND ADAPTERS

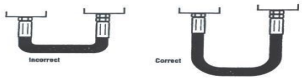

FIGURE 3 — MINIMUM BEND RADIUS

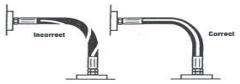

FIGURE 4 — TWIST ANGLE AND ORIENTATION

Visit www.chamflex.com to view safety guidelines for selecting hose.

WARNING: Hoses are not rated for potable water

WARNING: "Flux and solder drips have been found to weaken the stainless steel braiding on Cham*flex*® Hose Assemblies which could lead to deterioration of the inner tube component causing 'ballooning' and eventual failure. Cham*flex*® Hose Assemblies must be shielded with appropriate fire resistance materials or if possible, removed from service if soldering, welding, or brazing is to occur in areas above or adjacent to said assemblies. Chamberlin Rubber Company, Inc. will not be responsible for failed hose assemblies and/or subsequent damage that occurred by failing to follow the provided Installation Instructions (and warnings) as well as the Safety Guide."

NOTE: Be sure that the exterior of the hose does not come into contact with substances not compatible with 302/304 stainless steel, including (but not limited to) any substances that contain chlorides. Chlorides have been found to cause stress corrosion cracking of the stainless steel braid and eventual failure.

Caution: When brass sweat adapters/ball valve are being used, make sure that the hose assembly is disconnected from the adapter prior to "sweating" it on. Excessive direct heat can damage the tube of the hose. The hose assembly should be reattached to the adapter after the "sweating" operation has been performed and adapter properly cooled.

WARNING: To insure proper installation this hose assembly must be installed according to instructions.

To ensure the highest performance from your Cham*Flex*® hose assemblies be sure they are installed properly.

NO PIPE DOPE — NO THREAD TAPE

DO NOT PUT ANYTHING ON THE

JIC FITTINGS

DO NOT EXCEED BEND RADIUS

Cham*Flex*® hose assemblies have superior flexibility due to their unique construction but everything has its limits. Please refer to the installation instructions for the minimum bend radius of your hose assembly.

PROTECT YOUR HOSE FROM FLUX & SOLDER

Cham*Flex*® hose assemblies will be damaged if flux & solder is allowed to drip onto them during installation. Be sure to protect your hose assemblies to prevent future problems.

CHAMFlex®
"CLASS A" FIRE RATED
HOSE ASSEMBLIES & KITS

For more information visit our website:

www.chamflex.com

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