



Pressure Washer Hoses

In the high pressure washer industry, the hose is one of the most abused pieces of equipment. One reason for this, is that the hose is deceptively simple, and many operators erroneously feel that it can withstand various kinds of inappropriate treatment. However, the hoses made for the high pressure washer industry are complex enough to warrant more care. After all, you wouldn't run over your electric pump, would you?

Hose Construction

The high pressure hose is basically constructed of three layers:

The innermost layer consists of the inner tube of the hose. This is the part that is exposed to cleaning solvents or water, and it is usually constructed of the oil-resistant synthetic rubber, such as neoprene or nitrile blend. These materials can withstand exposure to a variety of solvents and high temperatures and are thus well-suited for their application.

The middle layer contains the hose reinforcement. This may consist of 1- or 2- wire braid, usually constructed of high tensile steel, or 1 or 2 braids of high strength yarn. The wire reinforcement is possibly the most important part of any hose, for it keeps the hose in one piece while it is being subjected to high pressure. It is not surprising that many causes of hose blow-outs can be traced to a break in the wire reinforcement.

The third layer is the hose cover. Like the inner tube of the hose, the hose cover is also constructed of durable material, usually carboxylated nitrile. This is usually pin-pricked to allow super heated water permeating the tube to escape, thereby preventing blisters from forming on the cover.

Hose Failure

Hose failures usually occur within 3 to 4 feet of the gun or wand end of the hose. Needless to say, this is an uncomfortably close distance to the operator. However, most of the problems that lead to a blowout can be avoided as most are attributed to abuse.

Improper coupling of the connector to the hose. Make sure the fitting with the spray gun has been properly executed and that the crimp setting for the hose has been accurately determined.

Excessive kinking can cause damage to the wire reinforcement, thereby weakening the hose and making it more susceptible to failure and blowout.

Flattening due to a vehicle driving over it. When a hose is flattened in this manner, the wire braid usually gets broken and may weaken the hose enough to cause a future blowout.

Hose abrasion can be a problem if the cover of the hose abrades down to the wire reinforcement, exposing the reinforcement to rust or deterioration. Abrasion can occur by excessive dragging of the hose.

The hose should always fit the application. Hoses should never be switched between machines unless the machines are identical in operation and application.

Hoses should never be left to sit in pools of liquid, as some solvents permeate the hose through the pin pricks and degrade the wire reinforcement.

Hoses should be winterized properly. Water left in the hose will expand, causing damage to the tube or reinforcement. In addition, metal fittings may freeze and be damaged.

